

CHAPTER FOUR

“To gladden and bless the nations of the earth:” King Corn in the Kitchen, 1877-1918

*“Economy in Food is the Wealth of Nations”
-Menu, American Maize Banquet given March 20, 1893
at the Hotel King of Denmark, Copenhagen
by Charles J. Murphy, representing the
United States Agricultural Department in Europe*

In November of 1890, Charles “Mr. Hiawatha” Murphy sent Robert Furnas, Nebraska’s former governor and its frequent exposition commissioner, a carefully calculated letter.⁶²³ Though he bordered on sixty and carried a head of “snow white hair,” Murphy was in the process of reinventing himself yet again.⁶²⁴ After fighting in the War with Mexico as a young man, he had ventured farther and farther west, first prospecting in the California Gold Rush and then transforming himself into a Shanghai wine merchant. Upon returning to the United States, he fought in the Civil War and was captured at Bull Run. After escaping from Confederate forces, Murphy eventually returned to New York, where he started a family and became a brewer.⁶²⁵ **[Image 4.1]**

⁶²³ For this particular moniker, see “Mr. Hiawatha Murphy,” *The Galveston Daily News*, July 13, 1895. He was also described as “Cornmeal” and “Corn Bread” Murphy.

⁶²⁴ George Hanson Apperson, ““Corn Bread” Murphy,” *Yenowine's Illustrated News*, May 27, 1893, 7.

⁶²⁵ On Murphy’s life, see “Our Maize Missionary. A Talk with Col. R. J. Murphy, the Ambassador of King Corn to the Nations Beyond the Seas,” *The American Farmer* 34 (1893); George William Hill, “Indian Corn: Its Use in Europe as a Human Food,” in *The Chataquan Monthly Magazine for October 1892-March 1893*, ed. Theodore L. Flood (Meadville, PA: T.L. Flood Publishing House, 1893). On Murphy as a Shanghai merchant and New York brewer, see Murphy, *Lecture...On American Indian Corn...* 14, 95. For the only other apparent account of Murphy’s corn endeavors, see Merle Curti and Kendall Birr, *Prelude to Point Four: American Technical Missions Overseas, 1838-1938* (Madison: The University of Wisconsin Press, 1954), 24-27. In reading their text, I learned that I overlooked Boxes 2 and 4 in the Correspondence of the Office of the Secretary of Agriculture, 1893-1897, Record Group 16, National Archives at College Park, MD. See also the National Archives’ Personnel File of Charles J. Murphy, Dept. of Agriculture (no RG given). For Murphy’s 1882 accounts of the wars, see Charles J. Murphy, *Reminiscences of the War of the Rebellion, and of the Mexican War* (New York: F.J. Ficker, 1882). A biographer, however, states that his text “is a hodgepodge of testimonial correspondence and memoranda to support the author’s claim of \$20,000 against the government for damages in the Civil War. There is very little material on the Mexican War.” See Harold F. Smith, *American Travellers Abroad: A Bibliography of Accounts Published before 1900*, 2nd. ed. (Lanham, MD: Scarecrow Press, Inc., 1999), 211.

When Murphy, a Democrat, wrote to Furnas that fall, he was leading his family in a multiyear quest to promote American Indian corn as a human food to potential European “corn-eaters.”⁶²⁶ Murphy, however, had also set his sights on potential American consumers. To this end, “Mr. Hiawatha” proposed to help Nebraska craft “a corn exhibit” at Chicago’s upcoming Exposition. He would, he promised, “go into it with heart and soul” and would even work “at my own expense.” The exhibit Murphy imagined would be very different than the corn palaces that Sioux City was yet in the business of constructing. “I know all about the True inwardness of the Sioux City corn Palace business,” Murphy continued. “[T]hey are gotten up principally by land speculators & city lot dealers to attract people to the City & not for the benefit of the Farmers whose interest they care but little about.”⁶²⁷



“CORN BREAD” MURPHY.

Image 4.1 / Charles “Corn Bread” Murphy, 1893.

Murphy, on the other hand, assured Furnas that his own concerns reflected nothing but farmers’ wellbeing. In order to generate the consumers whose demands would boost American corn markets at home and abroad, the New Yorker planned to rely

⁶²⁶ Charles J. Murphy, “The American Indian Corn Exhibit,” *Chicago Daily Tribune*, September 27, 1890, 7.

On Murphy as a Democrat, see Curti and Birr, *Prelude to Point Four*, 25. On Murphy’s family, and especially the role of his wife, see Apperson, ““Corn Bread” Murphy,” 7.

⁶²⁷ Charles J. Murphy (CJM) to Robert W. Furnas (RWF), November 23, 1890; Robert Furnas Papers (RFP); RG 001, SG 10, Box 7, NESHS.

upon women, both white and black, who would work in “corn kitchens.” Marketing surplus corn as desirable *human* food in these kitchens, he intimated, would alter extant public perceptions of the grain as fit only for animals or those with limited financial means. Because corn was the nation’s largest crop both by acreage and value, he was certain that his efforts would improve the lot of the nation’s farmers.

Murphy relayed his concerns to Furnas amidst, and in all likelihood, in response to the agrarian calls for political and economic reforms that began during the depression of 1877 and would culminate (though would not disappear) in the election of 1896. Battered by depressed farm prices, overdrawn mortgages, the high cost of freighting their products to market, and the lack of specie, many western agricultural producers saw themselves as victims of eastern monopolists and unfair political processes. While courses of action proposed by state Farmers’ Alliances, the Greenback Labor Party, the Grange, the Knights of Labor, and the People’s party evolved over time and varied from state to state, they presented many solutions. Proposals included expanding silver coinage, electing senators directly, limiting presidential terms in office, nationalizing railroads, taxing the wealthiest Americans at higher rates, and establishing channels through which the federal government would store crops until prices increased and provide farmers with low-cost loans.⁶²⁸

Though Murphy claimed to have farmers’ interests in mind when he suggested organizing Chicago’s corn kitchen, he does not appear to have supported anything like what would become the populists’ platform. Instead, “Mr. Hiawatha” and others like him proposed that expanding foreign and domestic corn consumption of the grain—thereby developing more of a market for corn as human food—would assist the nation’s farmers. Such views revolved around the premise that the nation needed to cultivate wider markets

⁶²⁸ Though populism reverberated more among the Great Plains farmers who attempted (and struggled) to cultivate wheat as their primary cash crop than among farmers in comparatively diversified corn-and-hog producing states like Iowa and Illinois, economic struggles alone did not a populist make. Political conditions, especially regarding feelings of alienation, also shaped the movement. For a recent exploration of the movement’s geographic variance and a brief analysis of previous historians’ interpretations of populism, see Jeffrey Ostler, *Prairie Populism: The Fate of Agrarian Radicalism in Kansas, Nebraska, and Iowa, 1880-1892* (Lawrence: University Press of Kansas, 1993). Other key scholarship includes John D. Hicks, *The Populist Revolt: A History of the Farmers' Alliance and the People's Party* (Minneapolis: University of Minnesota, 1931); Richard Hofstadter, *The Age of Reform: From Bryan to F.D.R.* (New York: Alfred A. Knopf, 1955); Lawrence Goodwyn, *Democratic Promise: The Populist Moment in America* (New York: Oxford University Press, 1976); Lawrence Goodwyn, *The Populist Moment: A Short History of the Agrarian Revolt in America* (Oxford: Oxford University Press, 1978).

for its products, especially the corn that it produced in such abundance. Rather than permitting farmers to “let their lands return to grass,” a move he seems to have imagined as the ultimate in imprudence, he insisted that increasing foreign demands for exported goods was “their only hope.”⁶²⁹ If foreign markets were strong enough, he declared, American farmers could continue to utilize “an unlimited number of acres of virgin soil” and “convert its rich loam into smiling fields of golden grain.” With sufficient demand for the products of their toil, the nation’s husbandmen could “extend further and further into our great National granary, until that immense territory of ours shall pour forth its millions on millions of bushels of corn to gladden and bless the nations of the earth.”⁶³⁰

Compared to other proposals for reform, Murphy’s charge to expand corn consumption avoided rocking the proverbial boat. Indeed, his promises of the limitless possibilities of corn production were antithetical to the sentiments embodied in the directive supposedly unleashed by populist orator Mary Clyans Lease: that Kansas farmers ought to “raise less corn and more hell.” Though modern historians have determined that Lease never uttered those words, the discrepancy between Murphy’s assertions that “smiling fields of golden grain” might continue to “pour forth...millions on millions of bushels of corn” and historians’ prior willingness to believe that that Lease might have encouraged farmers to grasp the reins of economic and political self-determination by decreasing their corn production reminds us that the processes shaping corn’s commodification during the late nineteenth century also eroded cultural and economic connections between the nation’s rural producers and its urban elites.⁶³¹

This chapter, however, does not focus on populism or agrarian activism. Instead, it focuses on attempts to cultivate a market for Indian corn as human food between the 1870s and the first World War. During these years, politicians, industrialists, and representatives from the Department of Agriculture—including “Mr. Hiawatha” Murphy—marketed the grain in the United States and in Europe, almost always with the intent to boost faltering corn prices. In particular, it looks at “corn kitchens,” venues that corn boosters attached to national and international expositions as the means through

⁶²⁹ Murphy, *Lecture...On American Indian Corn...* 13.

⁶³⁰ *Ibid.*, 20.

⁶³¹ Thomas R. Burkholder, “Mary Clyans Lease,” in *Women Public Speakers in the United States, 1800-1925: A Bio-Critical Sourcebook*, ed. Karlyn Kohrs Campbell (Westport, CT: Greenwood Press, 1993), 111.

which they might ameliorate farmers' woes. How these kitchens operated—on both structural and ideological levels—were quite complicated. In order to reshape consumer desires, which they imagined were infinitely elastic, those organizing the kitchens had to make corn desirable to potential consumers. But given widespread contemporary practices of feeding corn to animals and assumptions—on both sides of the Atlantic—that the grain was unfit for human consumption if other grains could be procured, this was no easy task. Thus to entice prospective consumers, those spearheading the kitchens turned to the culinary authenticity of black and Native women, on one hand, and the culinary authority of educated white women (and in one case, male French chefs), on the other. At the same time, they embraced two seemingly contradictory ideas: that the grain might provide families of little means the utmost economy in the kitchen and that products refined from the humble corn plant would enable a cook to produce *haute cuisine*. Corn boosters' decisions to pursue market development through gendered and racialized juxtapositions of culinary authenticity and economy, on one hand, and authority and luxury, on the other, rather than to call for restraint in putting land to the plow and thereby permitting demand to catch up to supply, illuminate three significant trends in the cultural and environmental history of American agricultural market making: the powerful but shortsighted belief that the nation's natural resources were as infinite as consumer demand, the use of gendered and racialized representations of culinary authority and authenticity as a means to tap into or develop consumers' latent desires, and the growing closeness among government and corporate leaders—to the exclusion of actual farmers—in pursuit of economic development. By uncovering this obscure series of American corn kitchens and by examining the premises on which contributing politicians, business leaders, and culinary figureheads based their support of economic and agricultural development, the chapter explores public and private approaches to market development at the turn of the century and points to some of the ecological costs of doing so. Finally, it suggests that King Corn's reign was coming to hinge less on consumers' direct use of the grain itself and more on the profits that industrialists could pocket by transforming it into other commodities.

PRELUDES TO THE PARIS CORN KITCHEN OF 1889

Despite the fact that Murphy's 1890 proposition to Furnas alluded to Sioux City's corn palaces, which were then in their fourth iteration, his efforts in Europe and on domestic soil grew out of and built upon earlier proposals to ameliorate Corn Belt farmers' struggles. States' levels of corn production had surged following the Civil War as western farmers put more acres to the plow. Though national corn yields increased on an annual basis, such growth was more precipitous in particular years. In the fall of 1875, for example, farmers harvested 400 million more bushels of corn than they had the previous year. As basic laws of economics would suggest, this sudden upswing in supply caused prices to drop. They fell, however, by more than one third. This trend of swelling production and falling prices continued over the next two years. Whereas farmers nationwide had enjoyed prices averaging as high as sixty-four cents per bushel in 1874, they were seeing only thirty-six cents per bushel by 1877.⁶³² In leading corn producing states like Iowa, corn prices were even lower.

During these same years, corporations began to invent new ways of marketing foodstuffs to the nation's growing urban populations. While businesses like N.K. Fairbank's relied, in part, on trade cards to advertise their products, industrial fairs and expositions afforded other promotional opportunities. At the nation's 1876 Centennial, for instance, the Fleischman Company, which produced compressed yeast cakes, constructed a Model Vienna Bakery. By serving visitors steaming cups of Viennese coffee along with samples of baked goods risen with their yeast, the company created a terrific demand for their product. After that Exhibition closed, the Fleischman firm opened model bakeries and cafés in leading cities around the nation, where they continued to sell breads leavened with their product.⁶³³ In the ensuing years, consumers' preferences for the textures and speedy rising times these yeast cakes afforded made Fleischman's a household name and transformed American bread production.

Progressive reformers, meanwhile, saw these same urban dwellers as individuals who needed to be taught how to live well on small means. In 1872, the Women's

⁶³² Agriculture, "Quickstats."

⁶³³ Fleishmann & Co. Gaff, "Centennial Exhibition, Vienna Model Bakery," *Centennial Exhibition Digital Collection* (1876), <http://libwww.library.phila.gov/cencol/Details.cfm?ItemNo=c110290>. See also J.A. Dacus and James W. Buel, *A Tour of St. Louis, or the inside Life of a Great City* (St. Louis: Western Publishing Company, Jones & Griffin, 1878), 293-294; "Unique among the Charities Is the Bread-Line," *New York Times*, October 2, 1904, 33; Jan Whitaker, "Early Chains: Vienna Model Bakery and Cafe," <http://victualling.wordpress.com/2008/08/31/early-chains-vienna-model-bakery-cafe/>.

Educational and Industrial Society of New York asked Juliet Corson—whose mid-1880s guide to meat selection we presumed that Emma Guernsey Flint might have consulted, but in the early 1870s, was yet the Society’s volunteer secretary—to give cooking lessons to the city’s expanding population of young, poor urban women. Corson’s efforts soon attracted widespread attention. Four years later and with the encouragement of wealthy supporters, she opened the New York Cooking School. In 1877, Corson published *The Cooking School Manual of Practical Directions for Economical Every-day Cookery*, which, like her institution, became a benchmark for nineteenth century cookery instruction around the nation.⁶³⁴

In November of 1877, Congressman Abram S. Hewitt brought these three disparate cultural moments together in a proposal he laid before the House of Representatives. Cognizant of the problems confronting American farmers, aware of the success that the Fleischman Company had enjoyed both at the 1876 Philadelphia exposition and thereafter, and quite possibly influenced by the popularity of Corson’s school within the city that he represented, Hewitt turned to the realm of cookery as a means to expand the foreign consumption of Indian corn.⁶³⁵ To make his proposition a reality, he supported granting a \$5,000 commission the U.S. Commissioner-General for the forthcoming Paris Exposition of 1878. To that line of funding, he attached the task of “arrang[ing] for the establishment of an American kitchen, in which shall be taught the mode of making and cooking the various preparations of Indian corn which are used as human food in this country, the same to be sold at as near cost as possible.” The

⁶³⁴ Andrew F. Smith, "Cooking Schools: Nineteenth Century," in *The Oxford Companion to American Food and Drink*, ed. Andrew F. Smith (New York: Oxford University Press, 2007); "Biography [Juliet Corson]," Michigan State University, http://digital.lib.msu.edu/projects/cookbooks/html/authors/author_corson.html.

⁶³⁵ For Hewitt’s mention of the “Vienna bakery,” which was, in reality, Fleischman’s, see *Congressional Record: Containing the Proceedings and Debates of the Forty-Fifth Congress, First Session...* vol. VI (Washington: Government Printing Office, 1877), 538. Congressman (and former Mayor) Hewitt and his wife, Sarah Amelia, had a reputation for entertaining at their home in Ringwood, New Jersey. Though a direct connection between the Hewitts and Corson is purely speculation, it is tempting to consider that there may have been some correspondence or connection between Corson and the women of the Hewitt household (they had three daughters of marrying age in the mid-1870s), or that the cooking instructor might have joined the Hewitts at their home as part of their entertaining. By one account, their home “became known as the second White House” during the late 1870s. See "Social History of the Forges and Manor of Ringwood," in *Ringwood Manor Iron Complex, 1740-1931* (Ringwood, NJ: The American Society of Mechanical Engineers, 1978), 1. A guest book for the family’s dinner parties seems to exist, but it is unclear where the document might be held. Finally, The Ringwood Manor, in New Jersey, as well as the Cooper Union Archives in New York may have relevant documents.

Commissioner, Hewitt added, would distribute “receipts in the several languages represented at the Exhibition” for free and would “detail the best methods of preparing and cooking Indian corn for human food, . . . furnishing such other information in regard thereto as will tend to promote its more general use.”⁶³⁶

Despite the fact that Hewitt’s proposal “awakened general interest,” the amendment containing the proposed appropriation failed to pass.⁶³⁷ The core of its failure lay in the fact that the corn kitchen question became enmeshed in larger debates about the merits of free markets versus government intervention. During the fall of 1877, Congress could not agree who should be responsible for shipping exhibited goods overseas and for constructing the nation’s larger exhibit in Paris the following year. Representatives who objected to the prospect of the government promoting manufacturers’ interests abroad, especially at a moment of widespread domestic economic struggles, contended that well-off manufacturers should foot the cost of their participation. In their rationale, the manufacturers who would donate goods to the corn kitchen had no business receiving government funds for transporting their products to Paris. Samuel Cox, another New York Congressman, argued that funding the corn kitchen in that way would “hoodwink the farming interests, and . . . serve the rich men and manufacturers.” Skeptical of Hewitt’s encouragement of government support for exposition displays, Cox pointed to Hewitt’s own position as a commissioner for the Paris Exposition and his family’s direct connection to the iron industry. Indeed, Alan Trachtenberg has noted that because Hewitt was aware of “the menace of the radical platform to the rule of private property and corporate wealth,” he had welcomed the task of “defeating . . . ‘‘Socialism, Anarchy, and Nihilism.’’” Hewitt, however, was more circumspect and argued that Congress ought to act in favor of the corn kitchen and fund the U.S. exhibit in order to promote the larger public good. To this end, he stated that the corn kitchen had legitimate precursors, like the Fleischman Company’s café. If the corn kitchen followed the Fleischman model, he insisted, it would not be a frivolous expense. Far from hoodwinking anyone, Hewitt explained, his idea would benefit “the farmers—the farmer everywhere.” For Cox, however, the idea of promoting corn exports to

⁶³⁶ “The Paris Exhibition of 1878,” *New York Times*, November 10, 1877.

⁶³⁷ “Home and Foreign Gossip,” *Harper’s Weekly*, December 1 1877, 947; Murphy, *Lecture...On American Indian Corn...* 15; “Day of King Corn,” *Chicago Daily Tribune*, February 16, 1898, 10.

Europe was preposterous. He argued that the United States was neither the sole corn-producing nation in the world nor the only country with means of preparing it for human consumption. The poet Joel Barlow, Cox observed, had famously encountered maize in Europe four decades earlier, a moment he described in his three-canto ode, *Hasty Pudding*. Bringing maize to countries that already grew it and showing France's well-renowned chefs how to cook it, Cox added, was not unlike "carrying coals to Newcastle." Hewitt's proposal "for his fair Dulcinea *cuisiniere*," and at the expense of poor "Sancho," Cox vouched, "outrivals" the charges made by "Don Quixote." In Cox's opinion, American manufacturers would find their "proper market in Europe" through "private enterprise," not government intervention. Hewitt, however, contended that his amendment was far from an irrational charge, and that it had generated a great deal of support from corn interests around the country.⁶³⁸

Though Hewitt's support for a corn kitchen came to naught, the Congressman's efforts inspired Charles Murphy, a fellow New Yorker, to "wait[] for an opportune time to exemplify to the world what could be done with our Indian corn as human food."⁶³⁹ A decade later, another individual's efforts whetted Murphy's ideas anew.⁶⁴⁰ In 1887, Burnet Landreth, a manager of that year's American Exhibition in London, proposed another Congressional appropriation for a corn exhibit at the upcoming Exposition.⁶⁴¹ Though Landreth's proposition, like Hewitt's, proved unsuccessful, it dovetailed with a

⁶³⁸ For Hewitt's defense of his business and his belief in the importance of participating in the Paris exhibition, see *Congressional Record: Containing the Proceedings and Debates of the Forty-Fifth Congress, First Session...* 493. For some of Cox's attacks on Hewitt, including his jest that Hewitt ought to become "the grand high corn-bread-distributor" and dress "with delicate lace around the neck" while serving the "golden meal" alongside milk procured from cows in a "golden pen" to various dignitaries, see *Congressional Record: Containing the Proceedings and Debates of the Forty-Fifth Congress, First Session...* 516-520. For Cox and Hewitt's longer exchange, including Hewitt's take on public support for the kitchen, see *Congressional Record: Containing the Proceedings and Debates of the Forty-Fifth Congress, First Session...* 528-540. On Trachtenberg's assessment of Hewitt, see Trachtenberg, *The Incorporation of America*, 167-168.

⁶³⁹ "Our Maize Missionary," 1; "No Money for the Corn Palace," *The Washington Post*, August 13, 1889, 5. On having anticipated boosting corn abroad "ever since the Paris Exposition of 1878," see Murphy, *Lecture...On American Indian Corn...* 5.

⁶⁴⁰ "Our Indian-Corn in Europe," *Harper's Weekly*, April 2 1892, 334.

⁶⁴¹ Landreth also worked in the private sector for his family's seed company, had been the Chief of the Bureau of Agriculture for the 1876 Centennial Exposition, and was offered (but declined) the position of Commissioner of the U.S. Department of Agriculture. See "Day of King Corn," 10; "Our Indian-Corn in Europe," 334; Marca L. Woodhams, "Biographies of American Seedsmen & Nurserymen: Burnet Landreth," Smithsonian Institution Libraries, <http://www.sil.si.edu/SILPublications/seeds/landrethburnet.html>.

nation again awash in corn.⁶⁴² Farmers had more than doubled the nation's corn acreage between the end of the Civil War and the late 1880s and were relying on implements like those advertised by the Flying Dutchman company to cultivate and harvest those acres.⁶⁴³ But after the exceptionally large crop of 1888 left western corn growers and merchants oversupplied and poorly compensated, that of 1889 decreased the price per bushel to the lowest point that the USDA had ever recorded and seemed to drive a nail into the Corn Belt's economic coffin.⁶⁴⁴ Many farmers found themselves with far more corn than they could feed or market, and no small number burned their crop instead of paying for coal.⁶⁴⁵

Although farmers' practices of feeding corn to livestock and manufacturers' recent inventions of products like glucose consumed much of the nation's corn at the end of the 1880s, exports of corn as a grain hovered just around four percent.⁶⁴⁶ Beginning in the fall of 1888, therefore, just as farmers and businessmen were discovering the magnitude of that year's crop, Murphy attempted to stimulate "a sufficient foreign demand" for corn anew.⁶⁴⁷ In all likelihood, his earlier experiments with glucose as a brewer probably stimulated his interest in corn, an industrial development I explore at greater length in chapter five.⁶⁴⁸ Inspired by the grain's potential and by the culinary proposals that Hewitt and Landreth had introduced in 1877 and 1887, Murphy proposed organizing "an exhibit of corn & manufactures of corn" for the upcoming Paris exposition of 1889.⁶⁴⁹

⁶⁴² The Congressional Record does not reveal any discussions of Landreth's proposal during the 1880s.

⁶⁴³ Agriculture, "Quickstats." In 1866, for example, the nation's farmers harvested 730 million bushels of corn from 30 million acres. In 1888, they gleaned more than 2 billion bushels from 77 million acres.

⁶⁴⁴ Murphy, *Lecture...On American Indian Corn...* 85. In 1889, corn prices averaged 27.5 cents per bushel. See Agriculture, "Quickstats."

⁶⁴⁵ Murphy, *Lecture...On American Indian Corn...* 16. For burning corn in lieu of coal, see Clark E. Carr, *My Day and Generation* (Chicago: A.C. McClurg, 1908), 436.

⁶⁴⁶ Murphy, *Lecture...On American Indian Corn...* 5; "Our Indian-Corn in Europe," 334.

⁶⁴⁷ Murphy calculated that "an advance of 5 cents...a bushel on [the 1889 crop]...would amount to \$112,100,000" and insisted that "Had we a sufficient foreign demand we could more than quadruple this production." See Murphy, *Lecture...On American Indian Corn...* 5; "Our Indian-Corn in Europe," 334.

⁶⁴⁸ Merle Curti and Kendall Birr note that "he once experimented with [corn] in his brewery operations." See Curti and Birr, *Prelude to Point Four*, 25.

⁶⁴⁹ Curti and Birr also state that Murphy tried "to promote corn in a big way" in the 1886-7 American Exhibition in London, but I haven't come across any such references. See *Ibid.* According to Murphy, he was also inspired by the earlier success that the wife of the United States Minister to Berlin enjoyed in convincing unenthusiastic Europeans of corn's virtues. Murphy, *Lecture...On American Indian Corn...* 15. If so, this probably took place between 1863 and 1867, during Minister Joseph Wright's second tour of duty in Berlin, while he was married to Caroline Rockwell. See William Wesley Woollen, "Joseph A.

Murphy's "method" for promoting corn as human food abroad would largely rely upon the culinary expertise and authority of American women.⁶⁵⁰ According to the *St. Paul Globe*, he would use "adepts of both colours"—presumably authentic black cooks as well as authoritative white women, a relationship I explain below—to demonstrate "the processes and varieties of corn edibles known to the culinary purveyor."⁶⁵¹ In Murphy's words, these women would "cook the food in presence of the public, [and] serve it to them at nominal prices," while he would "distribute literature in all languages, giving full information, price as compared with wheat, oatmeal, and other bread-stuffs, mode of preparation and cooking formulas." This protocol, Murphy added, would amount to persuasive "attacks" designed to "make the stronghold yield, and the captives our joyful prisoners."⁶⁵²

Having set his bearings for Paris, Murphy began to look for financial and institutional support. Eventually, he crafted a lively correspondence with Special Agent George William Hill in the office of the Secretary of the newly organized Department of Agriculture, with whom he developed both a friendship and a professional collaboration. From Hill, Murphy learned that the Department was planning its own "exhibition of grains & of corn in the ear and in general for the exhibit of the corn product as one of the cereals" and therefore lacked additional funds to assist Murphy. Hill did, however, offer "pamphlets of endorsements" and "letters of commendation" should Murphy pursue his project.⁶⁵³ But because Hill and others recognized that Murphy's idea could very well "result in a much greater familiarity with and appreciation of our corn product by Europeans and must consequently develope [sic] a greatly increased demand...which we all know we are only to[o] well able to supply," USDA representatives encouraged

Wright," in *Biographical and Historical Sketches of Early Indiana* (Indianapolis: Hammond & Co., 1883); Linda C. Gugin and James E. St. Clair, eds., *The Governors of Indiana* (Indianapolis: Indiana Historical Society Press, 2006), 120-121.

⁶⁵⁰ Murphy, *Lecture...On American Indian Corn...* 3.

⁶⁵¹ *Ibid.*, 85. His citation of the *Globe* was for January 15, 1889.

⁶⁵² *Ibid.*, 3.

⁶⁵³ George William Hill, Special Agent, to CJM, October 24, 1888, 97-99, and M. Trimble, Secretary, to Charles J. Murphy, October 26, 1888, 153; Bound book, Letters from Oct. 6th 1888 to December 10 1888; Fairs and Expositions, Lists of Early Exhibits of the Department of Agriculture, n.d., Paris Universal Expo (1889), Box No. 1 Entries 17 and 18; Letters Sent, 1888-1889 (LS); Records of the Extension Service, Record Group 33 (RG 33); NACP.

Murphy to seek financial backing from other groups with vested interests in corn: railroads and produce exchanges.⁶⁵⁴

Heeding Hill's wisdom, Murphy spoke in front of the New York Produce Exchange in January of 1889, where he gathered \$1050 in subscriptions.⁶⁵⁵ He also formed a committee in New York, which notified "commercial bodies" around the country about his project's expected outcome.⁶⁵⁶ After the *New York Times* encouraged Murphy's efforts, citing the "necessity of fresh outlets for the increasing surplus of the corn crop and the apt opportunity afforded by the Paris Exhibition," other eastern papers echoed this sentiment.⁶⁵⁷ Shifting his fundraising sights further west, Murphy appeared before the Directors of Chicago's Board of Trade in February. While there, he implied that Paris would not be the last stop on his tour, observing that other nations around Europe and China also contained profitable, newly opened markets.⁶⁵⁸ Shortly thereafter, Murphy ventured to Nebraska and Iowa.⁶⁵⁹ Like other newspapers, the *Iowa State Register* agreed that in a state with so much spare corn, Murphy's "work" would be "directly in our interest." Increased export demands for corn would so enhance the crop's total value, they explained, that it "would increase the value of every acre of land within [Iowa's] borders." Therefore, its editors argued, Murphy's "mission is of the utmost importance, and far-reaching in its consequences."⁶⁶⁰

⁶⁵⁴ C.V. Riley, Professor and Representative for the Commissioner of Agriculture, to CJM, November 30, 1888, 411; Bound book, Letters from Oct. 6th 1888 to December 10 1888; Fairs and Expositions, Lists of Early Exhibits of the Department of Agriculture, n.d., Paris Universal Expo (1889), Box No. 1 Entries 17 and 18; LS; RG 33; NACP. Murphy also appears to have asked for assistance in printing materials relevant to the proposed corn exhibit (though funds again were limited) and to have asked for permission to sell pop-corn in the USDA exhibit (though this was advised against). If nothing more, then, these exchanges enabled Murphy to establish a relationship with Hill and the USDA, to which he would return and deepen over time. See George William Hill to CJM, March 28, 1889; Bound book, Paris Exposition, From March 26, 1889 to June 4, 1889, 16; Fairs and Expositions, Lists of Early Exhibits of the Department of Agriculture, n.d., Paris Universal Expo (1889), Box No. 1 Entries 17 and 18; LS; RG 33; NACP. See also Geo. Wm. Hill to Charles J. Murphy, December 28, 1888; Bound book, Paris Exposition, From Dec. 11, 1888 to March 26, 1889, 116-117; Fairs and Expositions, Lists of Early Exhibits of the Department of Agriculture, n.d., Paris Universal Expo (1889), Box No. 1 Entries 17 and 18; LS; RG 33; NACP.

⁶⁵⁵ "No Money for the Corn Palace," 5.

⁶⁵⁶ Ibid.

⁶⁵⁷ "American Corn in Paris," *New York Times*, January 27, 1889; Murphy, *Lecture...On American Indian Corn...* 86.

⁶⁵⁸ "King Corn at the Paris Exposition," *Chicago Tribune*, February 27, 1889, 8. For Murphy's thoughts on the China market, see Murphy, *Lecture...On American Indian Corn...* 14.

⁶⁵⁹ For Murphy's mention of his time in Nebraska, see CJM to RWF, May 15, 1889; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 6961-6964), NESHS.

⁶⁶⁰ *Iowa State Register*, January 9, 1889, cited in Murphy, *Lecture...On American Indian Corn...* 85.

Despite enthusiasm stirred by newspaper editors and boards of trade, Murphy's efforts in the United States in early 1889 did not amount to much. The city of Buffalo subscribed merely \$360, which Murphy afterwards returned, and while both the Ohio and Illinois state legislatures proposed appropriations for Murphy's exhibit, those bills failed, as did a proposal that Illinois representative Richard Wellington Townshend put forward in Congress.⁶⁶¹ Undaunted, Murphy proceeded to Paris that spring in the company of W.B. Tredway, who had superintended Sioux City's 1888 corn palace.⁶⁶² Once there, Murphy published 25,000 copies of a forty eight-page pamphlet containing no fewer than sixty recipes for corn and excerpts from Robert Furnas' own writings.⁶⁶³ Armed with these materials and still planning to introduce corn to European eaters in a "picturesque[]" manner, he convinced French authorities to donate land near the Exposition's Trocadero.⁶⁶⁴

As his fundraising failures in the United States had foreshadowed, however, Murphy could not drum up the \$2,500 he needed to create the actual exhibit that Tredway had come to Paris to design.⁶⁶⁵ Although Murphy "got a fine piece of ground and," he added, "did a good deal of work at my own expense," especially "in the way of distributing pamphlets, &c., and explaining the merits of the food," and although he believed that his exhibit "would have been of more practical value to the farming interests of the United States than all the other American exhibits... combined," his efforts "came to nothing."⁶⁶⁶ This, he accused, was because the exposition's U.S. commissioner expressed nothing but "indifference and indolence" toward Murphy's requests and because Congress failed to provide adequate funds.⁶⁶⁷

⁶⁶¹ "No Money for the Corn Palace," 5.

⁶⁶² CJM to RWF, May 15, 1889; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 6961-6964), NESHS; "Tredway Going to Paris," *The Omaha Daily Herald*, March 10, 1889, 1. One wonders whether Tredway might have been the source for Murphy's later rant against the "True inwardness" of Sioux City's boosters.

⁶⁶³ CJM to RWF, May 15, 1889; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 6961-6964), NESHS.

⁶⁶⁴ "No Money for the Corn Palace," 5; "The Paris Exposition: The Great Centennial Exhibition Formally Opened to the Public Amid Great Pomp," *The Omaha Daily Herald*, May 7, 1889, 1.

⁶⁶⁵ "No Money for the Corn Palace," 5.

⁶⁶⁶ "Our Maize Missionary," 1; Murphy, *Lecture...On American Indian Corn...* 4, 5, 14; "No Money for the Corn Palace," 5.

⁶⁶⁷ "Our Maize Missionary," 1; "No Money for the Corn Palace," 5. See also Curti and Birr, *Prelude to Point Four*, 25. Two years later, as Europe was undergoing a severe grain shortage, then-Secretary of Agriculture Jeremiah Rusk reflected that had the Department been able to use the Paris Exposition to "to

OF MUSH, MILK, AND REFORM

Although Murphy was not, in the end, able to use female “adepts of both colours” to produce samples of corn as human food in Paris or to create the “picturesque” corn exhibit he imagined, he did lean upon the culinary authority of at least three white women during his time in France, especially when it came to authoring his publications and giving at least one key speech. Foremost among the women to whom he turned were his wife, whose name is conspicuously absent from extant documentation, and his daughter, Minnie. Letters and reports regarding Murphy’s efforts in Europe confirm that Mrs. Murphy traveled with her husband throughout the United States and Europe and suggest that she “wrote cookbooks” and prepared corn banquets during their time in Europe.⁶⁶⁸ For her part, Minnie translated some key publications into English and wrote as her father dictated his corn correspondence.⁶⁶⁹ She also served as an extra pair of eyes and ears so as to better judge their progress.⁶⁷⁰ Murphy, therefore, could not have promoted American agricultural markets without the additional labor supplied by the women in his family.

Although Murphy did not publicly acknowledge their efforts while they were in France, he did credit the work he appropriated from another white woman. In 1889, Mrs. Mary S. Scott published *Indian Corn as Human Food*.⁶⁷¹ Given her status as the wife of a former Iowa Lieutenant Governor, Mary Scott was no newcomer to that corn-producing

present the cause of “King Corn” to the people of Europe as it might and should have been presented,” far more could have been done to generate foreign demand for the crop. See “American Agriculture,” *The American Farmer; Devoted to Agriculture, Horticulture, etc.* 10, no. 20 (1891): 234.

⁶⁶⁸ On Mrs. Murphy, see Apperson, ““Corn Bread” Murphy.”; Curti and Birr, *Prelude to Point Four*, 25-26; Hill, “Indian Corn: Its Use in Europe as a Human Food,” 296. For Minnie’s contributions, see Minnie Murphy to Charles J. Murphy, [c. November, 1889?], enclosed in CJM to RWF, December 8, 1889; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7522-7541) NESHS.

⁶⁶⁹ For Minnie translating, see Minnie Murphy to CJM, [c. November, 1889?], enclosed in CJM to RWF, December 8, 1889; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7522-7541), NESHS. On typing, see Curti and Birr, *Prelude to Point Four*, 25. For her services while he dictated, see CJM to RWF, March 10, 1891; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7868-7871), NESHS.

⁶⁷⁰ “Corn to Go Abroad. New Market for American Maize Opening Up,” *The Daily InterOcean*, May 8, 1893.

⁶⁷¹ Mary S. Scott, *Indian Corn as Human Food* (Nevada, Iowa: Representative Office, Payne & Son, 1889). For more information on Mary S. Scott’s life, at least through 1906, see William Orson Payne, *History of Story County, Iowa* (Chicago: S.J. Clarke Publishing Company, 1911), 216.

state's political or social scenes.⁶⁷² But while her husband's position helped propel her into public life, Mrs. Scott crafted her own career. In 1884, the state of Iowa had appointed her as the Superintendent of its Women's Department for the upcoming Cotton Centennial in New Orleans (the same in which Furnas had declared that Nebraska corn was "King"). After accepting the commission that August, she wrote to women all over the state and conducted extensive speaking engagements while traveling and assembling the exhibit. During the New Orleans exposition, she highlighted the professional and literary successes of Iowa women.⁶⁷³ Thereafter, she also helped build the state's carp culture.⁶⁷⁴ To the extent that her activities suggest a trajectory of helping shape Iowa's social and agricultural development, we can infer that she had more in mind than simply offering suggestions for cooking when she published *Indian Corn as Human Food*.

Scott's primary purpose with *Indian Corn* appears to have been to stimulate domestic corn consumption, as human rather than hog food, so as to satisfy and eventually extend her home state's corn production. Though Iowa hardly flagged in this department—its corn acreage climbed steadily upward from 1.8 million acres planted in 1866 to 8.6 million in 1889, dipping only once during these years—the banner crop of 1888 had brought the price of Iowa corn down from its earlier highs and that of 1889 would do so further.⁶⁷⁵ Yet in Scott's assessment—a harbinger of agricultural leaders' later calls for more "intensive" and increasingly "scientific" agriculture—Iowa's corn was still growing by "very primitive forms of culture." With improvements, she argued, the state's aggregate "bread producing capacity" could in fact "be doubled."⁶⁷⁶

However, Scott cautioned, improved methods of cultivation would create new imperatives for consumption. To convince the state's women of their duties to participate

⁶⁷² Her husband, John Scott, served as a Republican Lieutenant Governor from 1868-1870, representing the city of Nevada, in Story County, Iowa. See p 257 in State Library of Iowa, "Historical Listing of State Officials of Iowa, 1846-1999," *Iowa State Register* (2000), publications.iowa.gov/135/1/history/7-4.pdf; Payne, *History of Story County, Iowa*, 367.

⁶⁷³ See her report in Herbert S. Fairhall, *Iowa at the World's Industrial and Cotton Centennial and the North, Central and South American Expositions, New Orleans, 1884-6* (Des Moines: Geo. E. Roberts, 1885), 55-72.

⁶⁷⁴ Though her husband was also connected to this endeavor, she received official permits to build carp ponds in her own name. See "Report of State Fish Commission: Carp Distribution, 1886," in *Legislative Documents Submitted to the Twenty-Second General Assembly of the State of Iowa* (Des Moines: Geo. E. Roberts, 1888), 26.

⁶⁷⁵ USDA, "Individual State Data for Iowa, 1870-2010."

⁶⁷⁶ Murphy, *Lecture...On American Indian Corn...* 21.

in this public-spirited process, she turned to the realm of sentiment. Corn, Scott asserted, had been “the principal food of the pioneer” and had helped grow “a race never surpassed in health and vigor in all the world’s history.” Overlooking the fact that her own efforts to improve agricultural productivity might encourage further environmental and industrial transformations which, in turn, could lead to Iowans’ greater distancing from their “pioneer” culinary habits, she noted that “the circumstances that had wrought corn-meal and its products into the greatest of luxuries, while also a prime necessity, were completely changed” with the destruction of the forests and the spread of civilization.⁶⁷⁷ Due to the ensuing and notable decrease in corn consumption between the day of the pioneer and her own, she reflected, “Our children have not the rugged bodies nor the blooming cheeks of the little folk of the days when “mush and milk” was the every day supper of the family.” Nor, she remarked, did the complexions of modern girls compare favorably with those of their mothers. Moreover, “A few of our boys may play base ball fairly well,” she added, “but in the days of “hog and hominy” every young man was athletic and gloried in his strength. For how much of this want of the old vigor,” she asked, “is the change of diet responsible?”⁶⁷⁸

Invoking her identities both as a private Victorian woman whose supposedly natural sphere was the care of the family and as a public-minded elite reformer whose influence might extend to transforming other women’s behaviors, she argued that Iowa’s housewives ought to disregard the fact that consuming corn as a grain had become “unfashionable” over the past few decades. They ought, she suggested, to consume corn as the state’s pioneers had done a generation before.⁶⁷⁹ Returning to corn as a dietary staple, she promised, would not only solve “dyspepsia” and other digestive woes plaguing modern eaters, but it would also enable public-spirited housewives to assist the cause of Iowa agriculture. The “object” of her 1889 book, therefore, was “[t]o bring to the attention of American housewives” as well as to “economists and philanthropists...

⁶⁷⁷ Scott, *Indian Corn as Human Food*, 18-19; Murphy, *Lecture...On American Indian Corn...* 26.

⁶⁷⁸ Scott, *Indian Corn as Human Food*, 22-23; Murphy, *Lecture...On American Indian Corn...* 28.

⁶⁷⁹ Scott, *Indian Corn as Human Food*, 21. Although Scott’s desire to encourage corn consumption among her fellow Iowans was antithetical to the efforts that progressive reformers would bring to Appalachia in a few short years—that is, to pressure rural mountain women to make beaten wheat biscuits rather than cornbread—Scott clearly recognized that the sentiment such women carried—that wheat flour was better than corn—was pervasive in an increasingly class-conscious nation. See Engelhardt, “Beating the Biscuits in Appalachia: Race, Class, and Gender Politics of Women Baking Bread.”

the possibilities presented in [Iowa's] immense food supply."⁶⁸⁰ Feeding one's family with her fifteen "formulas" for corn meal muffins, seven suggestions for griddle cakes, six recipes for brown bread, ten for corn bread, and dozens more for mushes, hominies, puddings, and delicacies, she claimed, would not only boost agricultural markets, but, by improving digestion and overall health, would augment society by diminishing crime.⁶⁸¹

Scott's turn to sentiment as a strategy to convince class-conscious Iowa housewives of corn's personal and social merits, even in an age fixated on dishes like beef *a la mode* and barded hare, on one hand, and torn by agrarian discontent, on the other, points towards many white eaters' growing aversion to the grain as something fit only for "savages," African Americans, or corn-fed animals. Whereas neither Eliza Leslie nor Catharine Beecher found sentimental rhetoric necessary to boost corn in their 1847 and 1848 publications, Scott recognized that tastes had changed in the ensuing decades.⁶⁸² In 1877, for instance, Congressman Hewitt's colleagues had denigrated foods made from corn. While Congressman Hamilton asserted that he "never" ate cornbread and in fact "detest[ed] hominy grits," Congressman Cox intimated that Hewitt's Paris corn kitchen would only find an appreciable audience with a "heathen Chinee."⁶⁸³

To overcome such notions, Mrs. Scott suggested that *modern* methods of corn raising and corn cookery would overcome any social stigma that might be attached to eating the grain as human food. Her understandings of modern cookery, however, hinged as much upon Victorian racial constructs and her own elite position as they did on the use of new stoves or implements. She assured readers concerned about transgressing boundaries of race, class, or the human/animal divide that by eating corn as a grain that the "careful housewife," by "care and wisdom... in the selection of the material and in its manipulation," could continue to produce the "dainties" which—if we apply the adage that one is what one eats—would continue to mark the eater as of a certain social status.⁶⁸⁴ As to the material, she reassured her readers that "The Northern farmer," who

⁶⁸⁰ Scott, *Indian Corn as Human Food*, 4.

⁶⁸¹ *Ibid.*, 6, 21-22. Murphy, *Lecture... On American Indian Corn...* 33.

⁶⁸² Leslie, *The Indian Meal Book: Comprising the Best Receipts for the Preparation of That Article*; Beecher, *Miss Beecher's Domestic Receipt Book: Designed as a Supplement to Her Treatise on Domestic Economy*, 3rd Ed.

⁶⁸³ *Congressional Record: Containing the Proceedings and Debates of the Forty-Fifth Congress, First Session...* 518, 533.

⁶⁸⁴ Scott, *Indian Corn as Human Food*, 24.

was, implicitly, white and educated, was busily improving the nation's corn so as to provide "the best variety for every purpose." He was, she wrote, "more careful of details" than either the (presumably poor and ignorant) "Southern planter" or the (equally poor and ignorant) "savage Indians," who merely "raised the sorts [of corn] that were most palatable under their simple modes of cooking."⁶⁸⁵ As to corn's manipulation, she promised that housewives could trust Scott's own "formulas," which she derived from leading cookbook authors.⁶⁸⁶ They comprised, she assured, far "better methods" than those available to "the savages who once claimed this fair land," those used by the "negro women" who "became famous cooks" only because "the spur of necessity" had "compelled them to invent and practise... simple methods" in order "to make it palatable," or even those practiced by "the pioneer settlers."⁶⁸⁷

Her consideration for the dyspeptic Victorian eater and for the niceties of social eating provided a key foundation for her recipes' "modern" improvements upon the "simple" methods marking recipes used by her forerunners. Mrs. Scott's formulas for Hasty Pudding and Baked Mush, for instance, both encompassed longer cooking times than other preparations suggested. Boiling the cornmeal with less haste, she explained, would prepare the food for even "the most delicate stomach."⁶⁸⁸ Likewise, she cautioned that her Corn Meal Gruel ought to "*boil one hour* very slowly" if prepared "for a very delicate person."⁶⁸⁹ Where she doesn't evince as much concern over her readers' digestions, she explained that her recipes for corn could form an excellent part of any woman's table, but only if the housewife served it with proper care. A dish of Fine Hominy, she wrote, "makes a nice breakfast dish with cream and sugar." By a similar token, she also recommended "Corn Bread No. 3," with the qualification to "hold the knife *perpendicularly*, and cut toward you" before serving.⁶⁹⁰ By preparing, serving, and eating corn dishes in these leisurely and refined ways, she suggested, modern white American women might yet enjoy their "dainties," and by extension, a kind of cachet.⁶⁹¹

⁶⁸⁵ Murphy, *Lecture...On American Indian Corn...* 30.

⁶⁸⁶ On other cookbook authors and formulas, see Scott, *Indian Corn as Human Food*, 7, 23. On authors, see also Murphy, *Lecture...On American Indian Corn...* 23.

⁶⁸⁷ Scott, *Indian Corn as Human Food*, 24; Murphy, *Lecture...On American Indian Corn...* 30.

⁶⁸⁸ Murphy, *Lecture...On American Indian Corn...* 35.

⁶⁸⁹ *Ibid.*, 37.

⁶⁹⁰ *Ibid.*, 38, 42.

⁶⁹¹ Scott, *Indian Corn as Human Food*, 24.

Though we do not know the extent to which Mrs. Scott's text circulated, her work was known well-enough in agricultural circles that Charles Murphy used her words in a speech he gave in Paris to the National Agricultural Society at the International Congress of Millers during August, 1889.⁶⁹² He also turned to her work for many of his publications. The printed version of the lecture Murphy delivered in Paris, for instance, contains no fewer than thirteen pages of her writings about corn and all of the recipes she included in her book. Given such heavy reliance on her creations, it is likely that the sixty recipes he included in the pamphlets that he distributed at the Paris Exposition were also of her doing.⁶⁹³ Praising the "considerable amount of the matter" she contributed and the thoroughness of her research and recipes, Murphy suggested that she had done "splendid work...in impressing on our American housewives the value and utility of American Indian Corn (Maize) as human food, thereby stimulating its greater use among our people."⁶⁹⁴ His reliance upon her text for his promotional efforts abroad and the USDA's later appropriation of his work—and thus her recipes—underscores the role that educated, white, public-minded women like Scott played in encouraging *fin de siècle* agricultural development through economic and health-promoting cookery.⁶⁹⁵

ATTACKING "OATMEAL IN THE CITADEL" WITH A "SKILLFUL WOMAN" IN CHARGE

Although Murphy had failed "to carry out [his] scheme" to actually serve corn foods in Paris during 1889, his growing correspondence with USDA representatives had given "Mr. Hiawatha" reason to think that he was no longer quite so alone in his endeavors. He was, therefore, undaunted by his failure at Paris and resolved "to continue my efforts in this direction until I show the people of Europe that corn is a good wholesome food & the way it should be cooked."⁶⁹⁶ During 1889, for instance, George

⁶⁹² This speech was given in Paris but was printed as part of Murphy's promotional materials for Edinburgh. See Murphy, *Lecture...On American Indian Corn...* 5.

⁶⁹³ *Ibid.*, 20.

⁶⁹⁴ *Ibid.*

⁶⁹⁵ In 1917, Frank G. Carpenter used Murphy's earlier publication, which incorporated Mrs. Scott's recipes, in WWI save wheat/eat corn rhetoric. He also noted that the USDA had "recently published a cook book as to the use of corn and corn meal," *Farmer's Bulletin* No. 563, which "probably contains some of Col. Murphy's recipes." See Frank G. Carpenter, "King Corn Vs. The Kaiser," *Los Angeles Times*, December 16, 1917.

⁶⁹⁶ CJM to RWF, December 8, 1889. RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7522-7541) NESHS.

William Hill, the special agent with whom Murphy had corresponded in 1888, authored a pamphlet designed to expand Europeans' use of corn. "Our capacity for producing it is unlimited," Hill stated. And given that U.S. farmers were able to provide the corn required for "various provisions both healthy and delicate from the very first courses right though to the delicious puddings and deserts," there was no reason that Europeans could not be educated into the knowledge that of "the triple advantage" corn would give to "their epicurean palates and the health of their stomachs and that of their pocket books."⁶⁹⁷

If Hill's words—the antithesis of Congressman Cox's denigration of Hewitt's proposal a decade earlier—encouraged Murphy to carry his mission forward, his correspondence with Julius Goldschmidt, the U.S. Consul General in Vienna, heartened him further. From Goldschmidt's perspective, each of "The great corn producing States...should establish American Kitchens [in Europe], in which could be prepared on American stoves, all the known preparations from corn." Moreover, he asserted, "The cooking should be done in the presence of the visitors, and the cooked samples to be distributed to them free of charge."⁶⁹⁸

Fortified with increasingly warm receptions in the USDA and among U.S. dignitaries overseas, Murphy entered 1890 in high hopes that the Department of Agriculture would grant him "an official relationship to our great nation in aid of this vast interest,—the export trade in Indian corn—our national grain."⁶⁹⁹ To this end, Murphy encouraged the National Farmers' Congress to work through American consulates to encourage the U.S. government to promote corn exports (which may have explained

⁶⁹⁷ William Hill, "Pamphlet on Cereals," enclosed in CJM to RF, December 8, 1889. RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7522-7541) NESHS. Hill's document had been translated into French for publication abroad, and Murphy's daughter Minnie translated it back into English, which Murphy then forwarded to Furnas.

⁶⁹⁸ Murphy, *Lecture...On American Indian Corn...* 94. Not only was his correspondence with Hill turning into something more fungible, but he was finding other ways to cozy up to the USDA at the end of 1889. In January of 1890, Murphy wrote to Furnas to tell him that Goldschmidt, with whom he'd communicated in late fall 1889 and early 1890, had written a "report advising a corn exhibit [at Vienna based on] on my plan," which was publicized "by the State Dept through the Dept of agriculture." See CJM to RWF, January 20, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7605-7608), NESHS. For Murphy's citation of Goldschmidt's support, see Charles Joseph Murphy, Harvey Washington Wiley, and B. W. (Bernard Willis) Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." ed. United States Department of Agriculture (Government Printing Office, 1891), 15.

⁶⁹⁹ Murphy, *Lecture...On American Indian Corn...* 5.

Goldschmidt's support).⁷⁰⁰ He also sought funding, through Furnas and the Nebraska State Board of Agriculture, among the "public spirited men engaged in the corn interest" in Lincoln and Omaha and pursued other "Western Exchanges" as potential donors.⁷⁰¹

While pushing for an official USDA appointment and for greater funds with which to conduct his work, Murphy began to plan for the corn pavilions he hoped to erect in Edinburgh, whose exposition would open May 1, 1890, as well as in Vienna, London, Frankfort, and Berlin.⁷⁰² Though he scrapped plans for Vienna after learning that authorities would not permit any "manipulation of fire" in that exposition's Rotunda, he carried on.⁷⁰³ By February of 1890, he had drafted stationary for the Edinburgh Exhibition—reusing an image of the corn palace that he had hoped to construct in Paris—and had traveled to Edinburgh to make arrangements.⁷⁰⁴ **[Image 4.2]** In Edinburgh, he happily informed Furnas, "they are taking the greatest interest in our American Corn Exhibit & have selected one of the best locations in the grounds for it."⁷⁰⁵ He also made arrangements to have samples of corn growing on his plot.⁷⁰⁶

When Murphy finally completed his corn pavilion, he called it a "handsome" building. But because his letters for financial assistance from private donors "resulted in nothing," it was "less pretentious" than he had originally hoped. Located "in the gardens near the bands-stand," Murphy's building—a miniature corn palace with a kitchen at its center—was between sixty and seventy-five feet long and twenty-five and forty feet wide.⁷⁰⁷ With an American flag on top and "prize ears of corn" decorating both "[o]utside and inside" the building, he deemed it complete after he hung "photographs" and "beautiful souvenirs of small ears of pop corn on...satin ribbon" on the walls. The

⁷⁰⁰ Curti and Birr, *Prelude to Point Four*, 25.

⁷⁰¹ CJM to RWF, February 13 and 21, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7633, 7642-7643), NESHS.

⁷⁰² CJM to RWF, January 20 and February 13 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7605-7608, 7633), NESHS.

⁷⁰³ CJM to RWF, March 14, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7654-7655), NESHS.

⁷⁰⁴ For image, see CJM to RWF, February 13, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frame 7633), NESHS.

⁷⁰⁵ CJM to RWF, February 21, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7642-7643), NESHS.

⁷⁰⁶ John Mortiveu to CJM, February 5, 1890, enclosed in CJM to RWF, February 13, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7635-7637, 7633), NESHS.

⁷⁰⁷ See CJM to RWF, May 25, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7672-7675), NESHS; Murphy, "The American Indian Corn Exhibit," 7; Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 8.

Pavilion also displayed sample ears of Nebraska corn, courtesy of Furnas. “Many of these,” Murphy wrote, “are certainly very remarkable and beautiful [sic] & are causing quite a sensation as most of the people have never before seen an ear of corn.”⁷⁰⁸

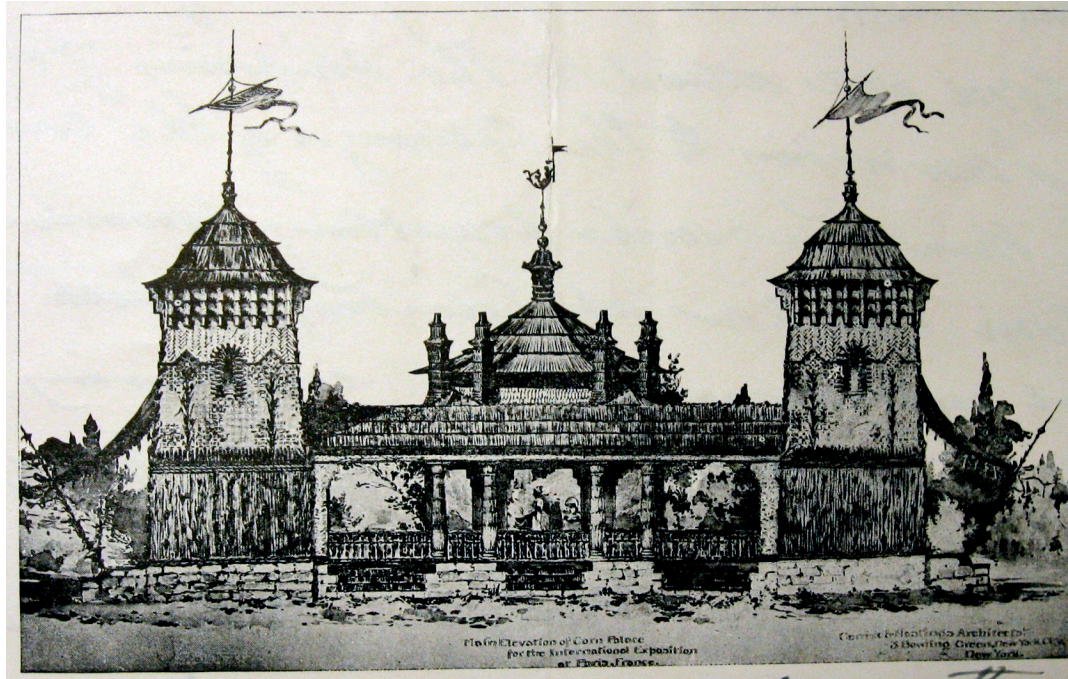


Image 4.2 / Main Elevation of Corn Palace for the International Exposition at Paris, France.

Though decorations inspired by earlier expositions and by Sioux City’s corn palaces formed key components of Murphy’s Edinburgh corn pavilion, showcasing Indian corn as human food remained his primary focus. But this was not something he could have undertaken alone. Indeed, his claim that he served samples of corn foods to “nearly three million visitors” over the course of the six month exhibition (however questionable that claim may seem) makes it clear that he relied on at least one other pair of hands, if not more, to process the “kiln-dried, home-ground” corn, tend the “American stoves” with which the “pavilion” was “fitted up,” prepare the “samples of bread, cakes, puddings, mush, fried mush, etc,” and ensure that corn dishes—which were best served hot—were fresh and at their most compelling flavor.⁷⁰⁹

⁷⁰⁸ Murphy, "The American Indian Corn Exhibit," 7. See also CJM to RWF, May 25, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7672-7675), NESHS.

⁷⁰⁹ Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 8; Murphy, *Lecture...On American Indian Corn...* 89-90. "Our Maize Missionary."

Based on his original plans for the Paris exposition, his earlier reliance upon Mrs. Scott's writings, and allusions to the otherwise uncredited efforts that his wife and daughter expended throughout his quest to generate European demand for American corn, it is likely that Murphy turned to the culinary authority of white women once more in order to produce the samples he endeavored to distribute free or "at a nominal price."⁷¹⁰ Mrs. Murphy, who remained with her husband throughout his time in Europe, may well have taken the lead in this aspect. While he did not credit her directly in this line of work, he mentioned that his pavilion's success relied on the efforts put forth by the "skillful woman in charge" of the kitchen.⁷¹¹ Given that later sources point to Mrs. Murphy's demonstrations of corn cookery in Glasgow and describe her success in producing a spectacular corn dinner in Copenhagen, it is entirely possible that she was the "skillful woman" upon whose talents and authority Murphy relied to expand American agricultural markets.⁷¹²

Murphy may also, however, have responded to popular perceptions of black women as talented creators of corn dishes by hiring an African American woman (or women) to prepare the foods he featured in his corn kitchen. Mrs. Scott's description of their "simple" methods of corn preparation, for instance, alluded to just such a reputation; she romanticized the cornbread that enslaved women had made as having been "eaten by the master, the dainty mistress, or the romping children, with a relish that lingered long in the memory."⁷¹³ And according to Harvey Wiley, Chief of the Bureau of Chemistry and the co-author, with Murphy, of an 1891 USDA report on corn, Murphy had engaged "cooks of the South skilled in the preparation of corn products" to serve European exhibition visitors "hoe and Johnnycakes... in proper form and with the highest style of Southern culinary art."⁷¹⁴ Given widespread and longstanding beliefs in black women's

⁷¹⁰ Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 8. It was under this guise that he published his Paris speech, using Scott's recipes, while in Edinburgh. Murphy, *Lecture...On American Indian Corn...*

⁷¹¹ "Our Maize Missionary."

⁷¹² For Glasgow cooking, see Hill, "Indian Corn: Its Use in Europe as a Human Food," 296. On Copenhagen banquet, see Curti and Birr, *Prelude to Point Four*, 26.

⁷¹³ Lacking full access to Scott's text (which I originally examined at the Huntington Library but was unable to photograph and only partly transcribed), I have to believe that Murphy was being accurate when he attributed those words to her. Murphy, *Lecture...On American Indian Corn...* 30.

⁷¹⁴ Harvey W. Wiley, "Corn to the Rescue," *Good Housekeeping*, December 1918, 55. Wiley's recollection was that these cooks appeared at Murphy's Paris exhibit. However, because the Paris exhibit did not

affinities for corn preparation, Wiley's recollection is equally plausible. As one Georgia slaveholder had earlier related, "if there is any one thing for which the African female intellect has natural genius, it is for cooking."⁷¹⁵ Historians of the changing place of "Aunt Jemima" in popular culture, moreover, have demonstrated that minstrel shows had established Jemima's stock character as the old plantation cook or the "Mammy" figure by the 1880s. In 1889—the same year Murphy took his pavilion idea abroad—a St. Louis businessman named Chris Rutt settled on "Aunt Jemima" as the name for a new pancake brand he wished to market. The next year, just as Murphy debuted his corn kitchen at Edinburgh, Rutt sold his company to one R.T. Davis, who, in turn, used his network of food brokers and distributors to hire Nancy Green, an actual African American woman (rather than a white man in drag, which had characterized the minstrel Jemima) to authenticate and better brand his pancake mix.⁷¹⁶ Given the extent to which popular culture was shaping the commercial endeavors of Rutt and Davis in the United States, it is not surprising that the stationary Murphy designed to promote his Edinburgh corn pavilion at this particular cultural moment—though it depicted the Paris pavilion that never was—featured what appears to a black "Mammy" or Aunt Jemima figure at the literal and figurative center of the pavilion.⁷¹⁷ **[Image 4.3]** Much as the Aunt Jemima brand was beginning to use a representation of black women to sell their product as a modern, conveniently packaged descendent of authentic plantation foods, Murphy deployed visual representations (and perhaps living embodiments) of the black female plantation cook in order to cultivate European consumers' desires for American corn.

actually go through, he may have been referring to Murphy's Edinburgh palace. He also, of course, could have been making it up. For his 1891 report printed alongside Murphy's, see Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..."

⁷¹⁵ See for instance Genovese, *Roll, Jordan, Roll: The World the Slaves Made*, 541.

⁷¹⁶ The "mammy" figure was a postbellum addition to the stock characters appearing in minstrel shows. In 1875, a black musician named Billy Kersands gave her a name, adapting the words from an old slave song to new music and introducing American audiences, black and white, to his creation: "Old Aunt Jemima." On minstrelsy and the early origins of Aunt Jemima, see Maurice M. Manring, *Slave in a Box: The Strange Career of Aunt Jemima* (Charlottesville: University of Virginia Press, 1998), 67-73; Robert Toll, *Blacking Up: The Minstrel Show in Nineteenth Century America* (New York: Oxford University Press, 1974), 259.

⁷¹⁷ For image, see CJM to RWF, February 13, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frame 7633), NESHS.

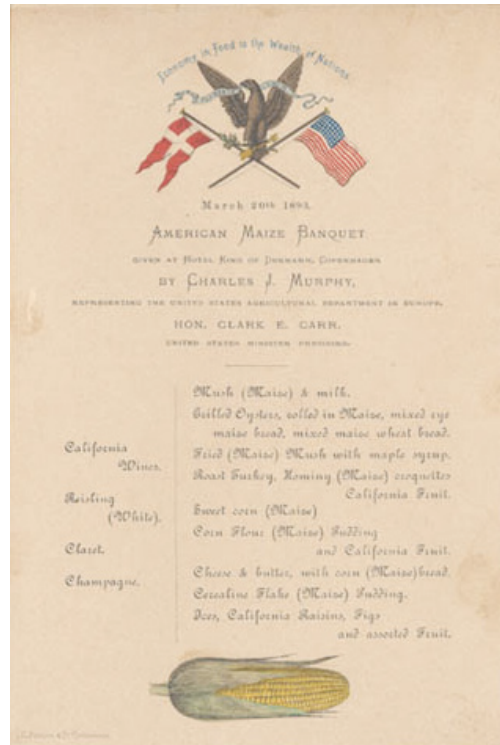


Image 4.3 / Detail, Image 4.2. **Image 4.4** / American Maize Banquet, Copenhagen, 1893.

Though the identity or identities of the woman or women who assisted him remain unclear, female culinary labor freed Murphy to “attack oatmeal in the citadel” by “distributing...cooking receipts and other necessary matter,” introducing corn to “inmates of charitable institutions,” and “interesting the people generally.”⁷¹⁸ And as a group, the corn crusaders attacked oatmeal with vigor. Murphy spoke of their hosting English, Scotch, and Indian dignitaries, as well as homesick Americans, with pride, and though he spent a great deal of time working with European governments to consider utilizing corn in the rations for their armies and poorhouses, a theme to which he would return as he moved about Europe following the Edinburgh Exposition, he was especially enthusiastic about his success in promoting corn as an affordable, wholesome food for the poor and institutionalized.⁷¹⁹ (This, however, contrasted with the directives Mrs. Scott had conveyed to class-sensitive potential American corn eaters.) To this end, he invited “all charitable institutions,” especially those assisting “the poor, deaf, dumb, lame, halt, and

⁷¹⁸ Murphy, "The American Indian Corn Exhibit."; Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 8.

⁷¹⁹ Murphy, "The American Indian Corn Exhibit," 7; Murphy, *Lecture...On American Indian Corn...* 32.

blind,” to sample “[f]ree meals” at the corn pavilion.⁷²⁰ He found many of these groups “much pleased with the food” they sampled and hoped they would incorporate corn in their institutions’ rations.⁷²¹ Students of industrial institutions were not the only tasters to enjoy the fruits of the “skillful” woman’s labors, however. “A jury of food experts,” he was pleased to report, gave the exhibit “a silver medal, the highest award a breadstuff could obtain.” Murphy interpreted that commendation as another step closer towards convincing “all Europe” to know and adopt “Indian corn as a food.”⁷²²

Throughout his time in Edinburgh, Murphy remained adamant that he could augment European demand so as to “give profitable employments to the vast acres of our fertile corn lands” and “benefit the three million [over-producing] American farmers, many of whom are now selling Indian corn at a loss.”⁷²³ The American consul in Edinburgh had nothing but praise for the Colonel’s efforts, asserting that he was “awakening the attention of the people at large to the fact that the stored-up sunlight in the autumn shocks of Kansas, Nebraska, and Missouri can be brought even cheaper than oatmeal, etc., to the very table of the workingman in Great Britain, France, Germany, Norway and Sweden.”⁷²⁴ And to the editor of the *Chicago Tribune*, Murphy reassured while abroad, the “Farmers of America” would soon enjoy the sight of “ships going from our ports freighted with the golden grain to the people of the Old World.”⁷²⁵

OFFICIAL APPOINTMENT

⁷²⁰ Murphy, "The American Indian Corn Exhibit," 7. On May 29, 1890, Murphy “published in all the Edinburgh papers” a letter advertising “Free meals in the Exhibition for the Inmates of Institutions.” It explained his purpose “of introducing Indian corn as human food into the United Kingdom, in order to benefit the three million American farmers, many of whom are now selling Indian corn at a loss, there being over-production and practically no export-demand for this excellent food.” Murphy, *Lecture...On American Indian Corn...* 33.

⁷²¹ Murphy, *Lecture...On American Indian Corn...* 33. In July, for instance, Murphy (and his kitchen staff) provided “a dinner of American corn food” to 250 students attending the “Original Industrial School in Liberton, Midlothian,” for which their Superintendent expressed gratitude. That same month, a group of students from Edinburgh’s Royal Blind Asylum and School also “greatly enjoyed” the “tea” and “Indian corn food” that Murphy provided upon their visit. Murphy, *Lecture...On American Indian Corn...* 91.

⁷²² Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 9.

⁷²³ Murphy, *Lecture...On American Indian Corn...* 32-33.

⁷²⁴ Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 8.

⁷²⁵ Murphy, "The American Indian Corn Exhibit," 7.

Despite Murphy's efforts and those of the woman or women toiling at the corn kitchen's stoves on behalf of the American farmer, the "unusually rainy summer" of 1890 translated into weak pecuniary results in Edinburgh. And although he had expected that the exhibit would be "self sustaining," low attendance had caused "a heavy loss."⁷²⁶ At the end of the year, he reflected upon his time there more gravely, calling his exhibit "a most disastrous financial failure." His guarantors lost their funds and Murphy himself lost "£350 which I could illy afford to lose after my...years of work in this corn propoganda [sic] all at my own expense."⁷²⁷

Murphy's personal losses, however, prompted his next move: a petition to convince the new Secretary of Agriculture, Jeremiah Rusk, to grant him an appointment in the Department. While he was still calculating his Edinburgh debts, Murphy asked Rusk to name him a "special agent...to look after the interest of corn in Europe." Murphy opined that "our rich country could afford to pay one man to look after a staple worth to the country nearly 700,000,000 doll[ar]s."⁷²⁸ Using an official representative to create "a large export demand for corn," Murphy insisted, would confer "immense benefits...to the farmers of our country."⁷²⁹ Moreover, he felt due some remuneration from the "time and money" he sacrificed while toiling "unaided and alone" (except, of course, for the "skillful woman" who had run his kitchens) in Paris and Edinburgh.⁷³⁰

In October of 1890, Rusk appointed Murphy as the nation's corn representative in Europe and provided him with a \$2,000 annual salary.⁷³¹ His decision at last granted official recognition to the idea that demonstration kitchens—and women's labors upon which these culinary expeditions depended—could successfully build American markets. And at a larger level, it articulated a new degree of government interest in boosting

⁷²⁶ CJM to RWF, August 29, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7685-7688), NESHS.

⁷²⁷ CJM to RWF, November 23, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7704-7711), NESHS. He said he'd been at the task of corn propaganda for four years, but I've found nothing earlier than his correspondence with the USDA in 1888 and his attempt at Paris in 1889. Later, he said that costs came to "\$1,750, paid out of my own pocket." See "Our Maize Missionary."

⁷²⁸ CJM to RWF, August 29 and 30, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7685-7693), NESHS

⁷²⁹ CJM to RWF, Sept. 13, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frame 7697), NESHS.

⁷³⁰ CJM to RWF, Sept. 13, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frame 7697), NESHS.

⁷³¹ For an explanation of his petition to Rusk, see CJM to RWF, September 13, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frame 7697), NESHS. For confirmation of his appointment, see "Our Maize Missionary," 1; John Gilmer Speed, "Our Indian Corn in Europe," *Harper's Weekly*, April 2 1892, 334; Curti and Birr, *Prelude to Point Four*, 25.

agricultural exports, especially at moments when those products exceeded domestic demand. Indeed, in 1891, Rusk argued that Murphy's endeavors in Europe mattered precisely because "the extent and availability of our resources in the production of this important cereal" and "the vast possibilities of its future development" required external markets to elevate corn's price and maintain producers' profits.⁷³²

Murphy's appointment gave him new sway in articulating departmental plans to promote corn consumption overseas and thereby stimulate domestic agricultural development. When Secretary Rusk visited the Sioux City corn palace of 1890 that fall, just before he announced Murphy's appointment, he suggested that someone ought to offer "an exposition of the...preparation of food" from corn at the Columbian Exposition alongside a reproduction of Sioux City's corn palace so as to "show foreign nations" the grain's "great value."⁷³³ Along with Murphy's appointment as a USDA "special agent," the Secretary's endorsement of the idea of promoting corn as human food in Chicago gave the Colonel the confidence to propose helping Furnas craft a Nebraska corn kitchen at the Chicago exposition.⁷³⁴ "[O]ur people," Murphy reiterated to Furnas, "know but little of the value of corn as a human food." So that "they should know" it in a more intimate way, he offered "to carry out [an exhibit at Chicago] on the same lines as the Exhibit I am giving over here [in Edinburgh] & make it self sustaining."⁷³⁵ "[W]hat a grand advertisement it would be for your state," he flattered Furnas. "This Nebraska

⁷³² Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 3-4.

⁷³³ "Rusk Visits the Palace."

⁷³⁴ Murphy had contemplated preparing corn as human food for American consumers at the Chicago Fair as early as May of 1890, barely a month into his time at the Edinburgh exposition, and had even applied for free space with which to do so. In his application to the Commissioner, he explained that he was not a regional or corporate boomer but merely a representative of "the American Farmers," for whose benefit he had been toiling in Europe and for whom he sought create larger markets. Were Chicago—which corn "built and rebuilt"—to host such a "Corn Exhibit," he wrote, the city would "impress the native" and the "foreigner with the wonderful possibilities of our National Grain" and offer great assistance to the nation's farmers. Given the timing of Murphy's letter to Furnas noted at the beginning of the chapter, it is likely that the Commissioner of the Exposition had rejected his request for free space. For Murphy's communications about Chicago and his subsequent appeal to Furnas for the Nebraska exhibit, see CJM to RWF, May 25, 1890; CJM to "the Director General," enclosed in CJM to RWF, August 30, 1890; CJM to RWF, November 23, 1890; and CJM to RWF, February 19, 1891; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7672-7675, 7689-7693, 7704-7711, 7822), NESHS.

See also Murphy, *Lecture...On American Indian Corn...* 4.

⁷³⁵ CJM to RWF, November 23, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7704-7711), NESHS.

Corn Exhibit, on same lines as proposed for Paris, would be one of the most important and useful exhibits in the entire fair.”⁷³⁶

Though how Furnas responded to Murphy’s petition for the Chicago corn kitchen is unclear, the former governor appears to have been unable to make the proposed exhibit a reality. In the meantime, Murphy and his wife spent the next three years crusading across Europe for the causes of corn and the overproducing American farmer. Crucially, the authority and assistance of her labor, though she remained unpaid and unattached to the USDA, remained central to Murphy’s appointment, which the USDA now sanctioned, directed, and remunerated.

Between December of 1890 and the summer of 1891, Charles and Mrs. Murphy operated corn exhibits in Glasgow and London, where they emphasized the grain’s utility and economy.⁷³⁷ During those months, however, Russia developed a grain famine that eventually prompted the Czar to prohibit exporting wheat and rye. Because Germany had imported large quantities of those grains from Russia, the Czar’s declaration meant that Germany was no longer able to depend on Russian granaries for the bulk of the German peoples’ caloric needs. In the fall of 1891 and in light of this potential market, Secretary Rusk sent his corn ambassador to Germany, where Murphy adjusted his methods to meet the needs both of a poorer, more conservative population whose bread-baking traditions and geographies differed profoundly from his own and worked with government officials to increase Germany’s consumption of corn as human food, particularly for its army.⁷³⁸

⁷³⁶ CJM to RWF, March 10, 1891; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7868-7871), NESHS.

⁷³⁷ For his plans for Glasgow, see CJM to RWF, January 20, February 21, and August 30, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, Frames 7605-7608, 7642-7643, 7689-7691), NESHS. For letters he sent while in Glasgow, see CJM to RWF, February 19 and March 10, 1891; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7822, 7868-7871), NESHS. For more on their Glasgow activities, see "Our Maize Missionary."; Hill, "Indian Corn: Its Use in Europe as a Human Food," 296; Murphy, Wiley, and Snow, "Report on the Use of Maize (Indian Corn) in Europe and on the Possibilities of Its Extension ..." 10; "American Corn in Europe," *The Galveston Daily News*, November 26, 1892, 6. Originally, they had planned for their son, Felix, to manage an exhibit in Frankfort while Murphy proceeded to London. Frank Mason, the Consul to Frankfort, was especially interested. See CJM to RWF, August 30, 1890; RG 001, SG 10, Box 7 (Microfilm Roll #8399, frames 7689-7693), NESHS. On their London activities, see "Our Maize Missionary."; Hill, "Indian Corn: Its Use in Europe as a Human Food," 296.

⁷³⁸ For Murphy’s endeavors in Germany, especially as they required special de-germinating technologies and relied on the introduction of a corn-rye mixture called Murphy-Bread or Murphy-brod, see Hill, "Indian Corn: Its Use in Europe as a Human Food," 295-297; Carpenter, "King Corn Vs. The Kaiser," IM6; "American Corn in Europe," 6; "Corn at Paris in 1900," *The Morning Oregonian*, October 13, 1897, 6; "Our Maize Missionary."; Speed, "Our Indian Corn in Europe," 334. See also Theodore M. Kawaller to Chicago Board of Trade, October 31, 1921; GC, 825, Grain - Corn, 1921; RG 16; NACP; "Day of King

While the extent to which Germans embraced his Murphy-brod is debatable, it is clear that Charles and Mrs. Murphy, now that he was attached to the USDA, promoted American corn in a more official capacity than before. Whereas he had encouraged representatives from social institutions and individual visitors to sample corn foods at exposition pavilions or cooking demonstrations, as a USDA representative, he worked directly with the German government. Army officials, who oversaw 500,000 men, each of whom consumed one loaf of bread per day, proved especially interested in Murphy's arguments that using corn in combination with rye for the men would save money.⁷³⁹ Interested in supplying food for German soldiers and their horses, German officials conducted experiments on corn and rye bread mixtures at "government bakeries," in garrisons, and in prisons over six months.⁷⁴⁰ Though the wait was long, the prospects of a new foreign market "for a product which engages the attention of so many American husbandmen" gratified Murphy, especially when corn was selling so cheaply in western states.⁷⁴¹ He was elated, therefore, when German officials eventually recommended the corn-rye mixture.⁷⁴²

According to Hill, Murphy's USDA confidant, the Colonel's activities in Germany generated interest in American Indian corn in other European countries, including Denmark, Sweden, and Holland.⁷⁴³ After leaving Germany, he ventured to Russia, where he and presumably his wife taught recipients of donated American corn how to properly prepare the grain.⁷⁴⁴ Shortly thereafter, the Murphy clan traveled to

Corn," 10; "What the Department of Agriculture Is Doing: Foreign Markets for Farm Products," *Ohio Farmer* 96, no. 17 (1899): 314.

⁷³⁹ "American Corn in Europe," 6.

⁷⁴⁰ Carpenter, "King Corn Vs. The Kaiser," IM6; Hill, "Indian Corn: Its Use in Europe as a Human Food," 295-297; "Our Maize Missionary."

⁷⁴¹ Speed, "Our Indian Corn in Europe," 334; Carpenter, "King Corn Vs. The Kaiser," IM6.

⁷⁴² "Corn at Paris in 1900," 6.

⁷⁴³ Hill, "Indian Corn: Its Use in Europe as a Human Food," 297.

⁷⁴⁴ The first evidence of his role in Russia appears in "Correspondence. Aid to the Starving Russians," *The Nation*, February 18 1892, 129-130. The original letter writer (anonymous) observed that the "Iowa Auxillary to the Red Cross has decided to send Russia a cargo of corn" and hoped as of early Feb. "to send a shipload of shelled corn in three weeks or less, and shall send inexpensive mills, with men to put them up." Meanwhile, the writer added, "the services of Col. Murphy, who is now introducing corn meal into Europe, have been tendered the Red Cross by Secretary Rusk, so that proper instruction in cooking is insured." Although *The Nation's* editors dismissed the idea of sending mills and millers, they observed that the Irish experience, in which "the people did not cook it sufficiently, and the natural result was dysentery," required that there be some instruction in "Cooking the corn properly." For a slightly later report, see "American Corn in Europe." Murphy's acts were recalled in subsequent years. In 1893, the press reported that "The American consul, [in Copenhagen?] Prof. Baker...said that...Colonel Murphy was the first to

Denmark, where he “found the finest field of all.”⁷⁴⁵ Once there, Clark E. Carr, whom President Harrison had appointed as “Minister Resident and Counsel General to Denmark” and subsequently promoted to “Minister Plenipotentiary and Envoy Extraordinary,” began to guide Murphy through Copenhagen society.⁷⁴⁶ The two crafted a lasting bond during the short time they were together. Before Murphy’s arrival, Carr and his family had been “obliged to send to New York” for any corn they desired to consume.⁷⁴⁷ When Murphy and his corn gospel arrived, Carr “took Murphy under his charge” and brought him to “grocery stores,” where the two men together “solicited” Danish people to try American corn products.⁷⁴⁸

Their most notable collaboration occurred at the “American Maize Banquet” that Murphy gave as an official representative of the USDA at the “Hotel King of Denmark, Copenhagen” in March of 1893, over which Carr held court.⁷⁴⁹ **[Image 4.4]** No fewer than fifty-two men from around Europe gathered to hear Murphy expound upon the virtues of America’s grain and to feast on an American repast expertly produced by Mrs. Murphy.⁷⁵⁰ Mingling in the salon before dinner, American ministers conversed with Danish bankers, grain merchants, and dignitaries. They also met with Swiss, Russian, French, and Belgian consuls and with members of the press. Murphy took full advantage of this captive audience by showcasing the varieties of food products to which corn contributed and by explaining the grain’s economy in relation to European staples like wheat and rye. When the assembled group eventually passed through to the banquet hall,

inform Americans of the distress of the poor Russians, and his energy in soliciting subscriptions largely contributed to bring about the general offerings of maize and other grains from America.” See “Indian Corn. Efforts Will Be Made to Feed Europe with It,” *The Daily Picayune*, May 5, 1893, 10. A later article reiterated this idea, but suggested that Murphy sent someone in his stead. “During the Russian famine two years ago several shiploads of American corn were sent to the region bordering on the Black sea, and Colonel Murphy, by direction of the department, sent an agent there to aid in the distribution of the corn and to teach the natives how to prepare it for food. The work was successful...and a demand for its importation has sprung up in that portion of Europe.” Apperson, ““Corn Bread” Murphy,” 7.

⁷⁴⁵ “Our Maize Missionary.”

⁷⁴⁶ For biographical background, see George A. Lawrence, “Clark E. Carr, Late Honorary President of the Illinois State Historical Society. A Tribute,” in *Transactions of the Illinois State Historical Society for the Year 1919* (Springfield: Illinois State Historical Library 1919), 87; Carr, *My Day and Generation*, 425-427.

⁷⁴⁷ “Mr. Hiawatha Murphy,” 10.

⁷⁴⁸ Illinois Farmers' Institute, *Annual Report of the Illinois Farmers' Institute with Reports of County Farmers' Institutes for the Year 1899* (Springfield: Phillips Bros., 1899), 210. Mr. Snow was the speaker. See also Carr, *My Day and Generation*, 246-427.

⁷⁴⁹ American Maize Banquet, Copenhagen, 1893. Ephemera: Handy Menus, Janice Bluestein Longone Culinary Archive, CLEM.

⁷⁵⁰ Curti and Birr, *Prelude to Point Four*, 26.

which had been decorated in Danish and American flags, they confronted an American corn smorgasbord. One account described the feast as replete with “mush and milk, grilled oysters rolled in maize, fried hominy and maple syrup roast turkey with maize croquettes, sweet corn (maize), maize pudding with California fruits, hot corn, maize bread, cerealine pudding, mixed maize-wheat bread, maize-rye bread, ices, California raisins, American fruits, California wines of different kinds, as well as champagne.” Luckily for Murphy and Carr, “Every one was delighted with the maize, and all agreed that such a food could be successfully introduced.”⁷⁵¹

Later in the evening, Murphy’s son—who would take over the reigns of his father’s work and collaborate with Carr later that decade—spoke before the assembled group, both in French and in German, to relate the history of maize, stories of its introduction in Europe, and its value to Americans. The event was pronounced “a great success” and reports circulating thereafter declared that the banquet had done much to showcase the value of maize as food throughout Denmark.⁷⁵² For her part, Murphy’s daughter, Minnie, later reported having seen “maize pudding” as a featured dessert listed on a “bill of fare at one of the regular table d’ hote dinners.”⁷⁵³

SARAH TYSON RORER AND THE ILLINOIS WOMEN’S EXPOSITION BOARD’S CORN KITCHEN

During Murphy’s absence and of their own accord, but quite plausibly because of the press surrounding his work overseas, the Illinois Women’s Exposition Board for the 1893 World’s Fair had taken it upon themselves to illuminate corn’s “nutritive value and palatable preparation,” which they believed were “little understood at home or abroad.”⁷⁵⁴ Under the leadership of Mrs. Richard J. Oglesby, wife of the former Illinois governor and the chairwoman of the Board’s “committee on domestic science,” the Board established a corn kitchen to “illustrat[e] the availableness of corn—one of the staple products of the State—as a food.”⁷⁵⁵

⁷⁵¹ "Indian Corn. Efforts Will Be Made to Feed Europe with It," 10.

⁷⁵² Ibid.

⁷⁵³ "Corn to Go Abroad," 5.

⁷⁵⁴ *The Illinois Building and Exhibits Therein at the World's Columbian Exposition*, (Chicago: John Morris Company, 1893), 152.

⁷⁵⁵ "Woman's New Field," *The Daily InterOcean*, November 12, 1893, 28. See also Moses P. Handy, ed., *The Official Directory of the Columbian Exposition* (Chicago: W.B. Conkey Company, 1893), 82. While we can only speculate on how or why Mrs. Oglesby settled on a corn-themed kitchen to represent her state,

At the kitchen's helm would stand none other than Mrs. Sarah Tyson Rorer, the figurehead of the Philadelphia Cooking School and a well-known lecturer, author, and spokeswoman. Thanks, in part to Murphy's own efforts in publicizing details of the Russian famine and in "soliciting subscriptions" in the United States for Russian relief, Rorer had traveled to Europe during the summer of 1892, where she appears to have taught famine victims confronted with donated American corn how to prepare the grain for "domestic use" and thereby "gained an international reputation."⁷⁵⁶ Though details of her travels remain murky, the Illinois Women's Board appointed her to continue similar lessons in corn cookery at the Exposition, intending that the model corn kitchen would operate in the Illinois state building.⁷⁵⁷ Due to issues of space, however, the kitchen became a centerpiece of the Women's Building instead.⁷⁵⁸ Even so, the *Daily InterOcean* speculated that this turn of events was most fortunate, as "there were as many visitors in the former as in the latter, but not as many who would be interested in and would profit by hints on the uses of corn in cooking."⁷⁵⁹ **[Image 4.5]**

it is tempting to consider that the Murphy family's lobbying efforts and her husband's social and political connections may have convinced her of the merits of demonstrating corn as human food. Some of the language Rorer is cited as using during the event evokes Murphy's, perhaps having been absorbed in discussions with Mrs. Oglesby. See "The Food Development of Corn," *New York Times*, July 16, 1893, 11. We know that Gov. Richard J. Oglesby was interested in corn, for a year after the exposition, he offered an eloquent "Tribute to Corn" in Chicago at the Harvest Home Festival meeting of the Fellowship Club. See "Down on the Farm," *Chicago Daily Tribune*, October 19, 1894, 1. For a privately circulated reprint of his speech, see Richard J. Oglesby, *The Indian Corn* (Chicago: R.R. Donnelley & Sons Co., 1912). Though I have not been able to access it, references point to another source: "Indian Corn Kitchen," *Household News*, October 1893, 121-2.

⁷⁵⁶ "Indian Corn. Efforts Will Be Made to Feed Europe with It," 10; "The Illinois Corn Kitchen," *Chicago*, November 4, 1893, 12; "Woman's New Field," 28. While in Europe for three months in the summer 1892, one historian asserts, "she visited cooking schools, including London's famed Kensington School. She also visited markets and restaurants and observed cooking methods in England, Belgium, France, and Germany. She returned full of praise for Paris markets and French cuisine, but she found German cooking abysmal." The biography does not mention a trip to Russia though, or any European famine. Emma Seifrit Weigley, *Sarah Tyson Rorer, the Nation's Instructress in Dietetics and Cookery* (Philadelphia: The American Philosophical Society, 1977), 92. For more on donations of American corn, however, especially regarding the efforts that Iowa women made in soliciting donations and in teaching Europeans how to use American grains, and for Clara Barton's role in coordinating the donations, see B.F. Tillinghast, "The Women's Gift to Russia," *Harper's Weekly*, April 23 1892. Wherever she traveled, Rorer returned from Europe by early November, in time to give cooking lessons in a "model kitchen" at the meeting of the Retail Grocers' Association in Philadelphia. See "The Food Exposition," *The North American*, November 8 1892, 4.

⁷⁵⁷ Given that the fair began in May, this might have occurred before mid-April. See "Exposition Echoes," *The Atchison Daily Globe*, April 15, 1893, 1. Oglesby correspondence records might contain additional information regarding the selection of Mrs. Rorer. For the Illinois women's management, see "Illinois at the Fair," *The Daily Inter Ocean*, May 19, 1893, 12.

⁷⁵⁸ *The Illinois Building and Exhibits Therein...* 152.

⁷⁵⁹ "The Illinois Corn Kitchen," 12.



Image 4.5 / Sarah Tyson Rorer, 1893. **Image 4.6** / The Corn Kitchen in the Women's Building, 1893.

Rorer's corn kitchen opened on May 10, 1893. Located on the second floor of the Women's Building diagonally across from the President's Room, the kitchen contained a modern range and refrigerator, two cabinets, and a "gas stove with waterback dresser." Tiled on the floor and the wall and set on a raised platform, her space also featured "an improved kitchen table" and a three-foot wide illustration of corn varieties.⁷⁶⁰ Though the space would be used to instruct roughly 100 girls in cookery and housekeeping and as a meeting place for the Exposition's lady managers, its primary identity was that of "corn kitchen."⁷⁶¹ **[Image 4.6]**

For two hours every morning throughout the fair's six-month duration, every day except Sunday, Rorer instructed fairgoers on "the proper cooking of maize or Indian corn, one of the staple products of Illinois," never overlooking an opportunity to remind visitors that the kitchen's purpose was "[t]o use up the surplus corn of the United States."⁷⁶² Throughout her time in Chicago, regional and national press outlets drummed

⁷⁶⁰ For descriptions and an image of the space, see "Teach Them How to Cook. Illinois Women Open a Room at the Fair in a Practical Manner," *Daily Inter Ocean*, May 11, 1893, 7; H.H. Bancroft, *The Book of the Fair*, Cygne Noir ed. (Chicago: The Bancroft Company, 1893), 264-265, 269; Weigley, *Sarah Tyson Rorer, the Nation's Instructress in Dietetics and Cookery*, 94. Weigley cites the *Philadelphia Inquirer*, May 7, 1893. For an ad from the company claiming to be the maker of the gas stove Rorer used at the fair, see George M. Clark & Company, "Jewel Gas Stoves Are Best," *Household News* 2, no. 11 (1894): 790.

⁷⁶¹ "Woman's New Field," 28; *The Illinois Building and Exhibits Therein...* 152; "One Day at the Exposition," *The Daily Inter Ocean*, July 16, 1893, 7.

⁷⁶² On timing, see "Teach Them How to Cook," 7. On Sunday, see "The Food Development of Corn," 11. For a summary, see Weigley, *Sarah Tyson Rorer, the Nation's Instructress in Dietetics and Cookery*, 91-

up support for her endeavors. The *Daily InterOcean*, for example, suggested that “the seed sown by the Illinois corn kitchen...will eventually be revolutionary in its enlargement of the domestic uses of this great prairie staple.” The Chicago-based paper also added that it would not be “improbable that the Illinois woman’s board should eventually prove to have added millions of dollars to the value of each corn crop of this state alone.”⁷⁶³ *The Woman’s Journal*, meanwhile, framed the corn kitchen as a display of not just state but national interest: Rorer’s kitchen existed “because corn is our great staple national production,” it explained, adding that the kitchen would stimulate “foreign” interest “in learning how we use this great product.”⁷⁶⁴

In demonstrating corn for domestic and foreign audiences, Rorer communicated with visitors both in intimate exchanges and large gatherings. Although some speculated that teaching “entirely the preparation of corn products” would be “a disappointment” to “ladies” and that a corn-themed kitchen would be something for them to “sneer” at, Rorer’s demonstrations commanded large audiences over the course of the fair.⁷⁶⁵ In July, her work piqued the interest of the *New York Times*, which judged that it was “attracting the attention which it deserves.”⁷⁶⁶ By October, the *Scientific American* remarked, “Her lectures are so popular that the guards often have to break the crowds that gather around the doors after every seat has been taken.”⁷⁶⁷

The corn kitchen’s popularity derived from its mixture of practicality, economy, novelty, and of course, the racial and gender capital contributing to Rorer’s own culinary authority. Visitors were drawn to her demonstrations of the art of flipping flapjacks, her explanations of the mysteries of greasing waffle irons, and her urgings for attendees to sample her finished foods.⁷⁶⁸ More importantly, her lectures convinced many visitors,

97. For quotation, see *The Illinois Building and Exhibits Therein...* 152. On surplus, see Teresa Dean, “In Mrs. Rorer’s Kitchen,” *The Daily Inter Ocean*, July 4, 1893, 7.

⁷⁶³ “The Illinois Corn Kitchen,” 12.

⁷⁶⁴ F.M.A., “World’s Fair Notes,” *The Woman’s Journal*, July 22 1893.

⁷⁶⁵ “Teach Them How to Cook,” 7; “Illinois at the Fair,” 12; “Excellent Corn Cakes. Mrs. Rorer Shows the Women How to Cook Successfully,” *The Daily Inter Ocean*, May 13, 1893, 7; “How Mrs. Rorer Greases Cake Pans and Waffle Irons,” *Chicago Daily Tribune*, May 19, 1893, 2.

⁷⁶⁶ “The Food Development of Corn,” 11.

⁷⁶⁷ H.C. Hovey, “The Science of Nutrition as Exemplified at the World’s Columbian Exposition,” *Scientific American* LXIX, no. 15 (1893): 230.

⁷⁶⁸ “Mrs. Rorer Instructs in the Art of Making Flapjacks,” *Chicago Daily Tribune*, May 19, 1893, 5; “How Mrs. Rorer Greases Cake Pans and Waffle Irons,” 2; “In the Model Kitchen. Words of Wisdom Mixed with More Common Ingredients,” *The Daily Inter Ocean*, May 19, 1893, 7.

especially “every-day housekeepers,” of the fact “that she is practical and that she prepares nothing which she cannot teach others to do.”⁷⁶⁹ She was especially keen on preaching the value of a new product called corn flour, explaining that it was “unquestionably a valuable addition to” the pantry, along with potatoes and wheat.⁷⁷⁰ The *Daily InterOcean* concurred, observing that her “delicious cakes...for lightness and delicacy could not be told from sponge-cakes of wheat flour.”⁷⁷¹

Above all, the sheer range of her corn creations marveled those who visited. “There was no form in which corn could be utilized as food that was not shown,” the *Daily InterOcean* gaped. Over the course of the fair, Rorer “served up...all imaginable forms of bread, soup, sauces, and as a vegetable in a great number of palatable dishes.”⁷⁷² For her first free demonstration, she showcased “a delicious cream of cornstarch pudding.”⁷⁷³ Later lessons included “corn muffins, Victoria corn bread, and pudding with cornstarch and water to be served with fruit;” “corn mush muffins and Adirondack cornbread;” “Strawberry Shortcake” and “yeast bread;” “corn-bread with yeast, cream chocolate pudding with Vanilla sauce, and apple pudding;” “bouillon, with grits, cakes, clear soup coloring, plunkets and steamed Indian pudding;” another “Indian pudding, some corn dodgers, and some muffins...Molds of white and yellow mush and corn starch pudding filled with delicious strawberries;” “waffles, plunkets and pudding... corn-bread, with yeast...chocolate cream pudding, with sauce, and apple pudding;” and cornmeal cakes.⁷⁷⁴ Rorer even experimented with corn as “haute cuisine,” transforming “hominy grits” into “a custard and frozen with the addition of whipped cream and a comport of fruit.”⁷⁷⁵ According to the *New York Times*, her repertoire was “a revelation.”⁷⁷⁶

⁷⁶⁹ “Excellent Corn Cakes,” 7.

⁷⁷⁰ “The Food Development of Corn,” 11. For more on corn flour, see “How Mrs. Rorer Greases Cake Pans and Waffle Irons,” 2; “Lecture on Strawberry Shortcake,” *Chicago Daily Tribune*, May 28, 1893, 3; “The Food Development of Corn,” 11.

⁷⁷¹ “Excellent Corn Cakes,” 7.

⁷⁷² “Woman’s New Field,” 28.

⁷⁷³ “Teach Them How to Cook,” 7.

⁷⁷⁴ “Mrs. Rorer’s Cooking Talk,” *Chicago Daily Tribune*, May 21, 1893, 2.

“World’s Fair Notes,” *Chicago Daily Tribune*, May 24, 1893, 3; “Lecture on Strawberry Shortcake,” 3; “How Mrs. Rorer Greases Cake Pans and Waffle Irons,” 2; “Mrs. Rorer’s Stove Explodes. An Accident in the Woman’s Building That Does but Little Damage,” *Daily Inter Ocean*, May 16, 1893, 7; “Mrs. Rorer Makes More Puddings,” *Chicago Daily Tribune*, May 15, 1893, 1; “In the Model Kitchen,” 7; “Excellent Corn Cakes,” 7.

⁷⁷⁵ Weigley, *Sarah Tyson Rorer, the Nation’s Instructress in Dietetics and Cookery*, 95.

Though she came to the fair wielding a great deal of culinary authority, courtesy of her race, gender, cooking school leadership, and her recent stint in Europe, Rorer turned to non-white women in search of an additional degree of culinary authenticity when it came to promoting corn to her (white) audiences as a human food. Unlike Mary Scott and Charles Murphy, however, who had pointed to black female corn cooks, Rorer looked to Indian women for inspiration. While Rorer was in Chicago, for example, “a squaw”—perhaps a Native woman connected to Buffalo Bill’s Wild West show, which performed near the Exposition during the summer of 1893—had baked some sort of bread “for her.” In all likelihood, it was probably a kind of cornbread.⁷⁷⁷ While the manner in which such an interaction would have arisen is unclear, Rorer herself might have initiated the exchange while seeking new modes of corn cookery. After all, she had been a dietary reformer for well over a decade and eagerly embraced garlic when Italian cooking school students in Philadelphia introduced the ingredient to her.⁷⁷⁸ Given the extent to which Native preparations of corn appeared to lie outside the realm of the dyspepsia-inducing modern American table, alternative methods for preparing meals carried special interest for her.

She pursued Native corn wisdom in other ways, as well. For the main, she turned to the work of Talcott Williams and Frank Hamilton Cushing, both of whom served as cultural mediators between white and Native Americans. Both Williams, a Philadelphia reporter, and Cushing, the Smithsonian ethnologist known for having lived among and written about the Zuñi in New Mexico, had been Rorer’s dietary patients since the mid-1880s.⁷⁷⁹ While the former shared research on corn’s origins with her for the souvenir cookbook she distributed at her corn kitchen, Cushing forwarded at least three Zuñi corn recipes to Rorer’s attention for inclusion in the same booklet.⁷⁸⁰ She then combined their

⁷⁷⁶ "The Food Development of Corn," 11. For Rorer’s corn demonstrations and evidence of eager crowd responses, see Weigley, *Sarah Tyson Rorer, the Nation’s Instructress in Dietetics and Cookery*, 94. Hovey, "The Science of Nutrition as Exemplified at the World’s Columbian Exposition," 230.

⁷⁷⁷ "Mrs. Rorer Speaks About Bread," *The North American*, November 9 1893, 5.

⁷⁷⁸ For Rorer’s earliest experiences with a cooking school, between 1879 and 1880, see Weigley, *Sarah Tyson Rorer, the Nation’s Instructress in Dietetics and Cookery*, 15-17. On her enthusiasm for garlic, see Weigley, *Sarah Tyson Rorer, the Nation’s Instructress in Dietetics and Cookery*, 31.

⁷⁷⁹ For Cushing’s stomach maladies and Rorer’s interest in them, see Weigley, *Sarah Tyson Rorer, the Nation’s Instructress in Dietetics and Cookery*, 34.

⁷⁸⁰ *Ibid.*, 93.

contributions with her own recipes and distributed the compiled souvenir cookbooks to nearly a quarter million corn kitchen visitors.⁷⁸¹ [Image 4.7]



Image 4.7 / Cover, *Recipes used in Illinois Corn Exhibit Model Kitchen*, 1893.

Laden with narratives about racial progress even as they nodded to corn's Native origins, these souvenir booklets were complicated cultural productions, not unlike Sioux City's corn palaces or the corn kitchens themselves. Rorer began her recipe booklet by incorporating three of Cushing's translations of Zuñi recipes: *Zuni mú-we* (Hot Cakes), *Mu-K'ia-li-we* (Water Balls), and *K'ia-mu-ia-li-we* (Stewed Dumplings), which she, in turn, translated into the modern measurements defining the approach of scientific cookery. All three recipes, however, had a longer history, having appeared in print between 1884 and 1885 when Cushing published what would become his famous *Zuñi*

⁷⁸¹ "Mrs. Rorer Makes More Puddings," 1; Sarah T. Rorer, *Recipes Used in Illinois Corn Exhibit Model Kitchen Woman's Building Columbian Exposition* (Chicago: Illinois Women's Exposition Board, 1893); Kate Field, "Women and the Fair," *Chicago Daily Tribune*, November 12, 1893, 39; "Mrs. Rorer's Stove Explodes," 7; Weigley, *Sarah Tyson Rorer, the Nation's Instructress in Dietetics and Cookery*, 91-97.

Breadstuff in an Indianapolis milling magazine.⁷⁸² At that time, the ethnographer had used his translations of Zuñi cookery methods to illuminate the direction that his larger research would take. In his words, he aspired to “grind” Zuñi methods for making corn cakes baked with suet and red pepper (and ostensibly, more of their lifeways) “into English.” In so doing, he shaped himself as an all-knowing translator of material that would otherwise remain indecipherable. Indeed, the source for those cakes, and one imagines, many of his other meals, was “a white-headed Zuñi grandmother who was stirring vigorously some yellow batter with a bundle of splints.”⁷⁸³ Because she did not address him in English, his readers required his translations in order to access her methods. Thus by including Cushing’s translations of the Zuñi grandmother’s recipes in her booklet, Rorer, in turn, acted as the Zuñi grandmother’s second interpreter; her relation of those recipes thus carried a great degree of authenticity. But whereas Cushing supposed that a reader might make or understand *Zuni mu-we* by following directions to mix “Meal, soft corn flour, and good water, equally...then stirring red pepper, salt, and suet,” rolling the mixture into “a husk,” and thence placing the cakes into “an oven” and letting “time pass[]” before taking them out and making “ready” “for eating,” Rorer was under no such delusions. Hers was an era on the cusp of scientific cookery, where precision in the kitchen formed the basis of health and, in turn, required cups, teaspoons, tablespoons, knowledge of a “moderate oven,” and novelties like “greased paper.”⁷⁸⁴

However eagerly she promoted her version of Cushing’s translations of the Zuñi grandmother’s methods for cooking corn, and, even after the Fair, continued to speak “of the corn bread made by the Indians for generations, and the good health enjoyed by those people,” there were limits to her reliance on Native corn preparations.⁷⁸⁵ After including those first three Zuñi recipes in the souvenir cookbook, she turned away from Indian influences and introduced corn concoctions that, both in name and in ordering, resonated with the civilizing narratives then coursing through popular culture, much like those embodied in Frederick Jackson Turner’s Frontier Thesis and Buffalo Bill’s productions.

⁷⁸² See Frank Hamilton Cushing, *Zuni Breadstuff* (New York: Museum of the American Indian, Heye Foundation, 1920), 7, 17-18, 298-300; Jesse Green, "Introduction," in *Zuni: Selected Writings of Frank Hamilton Cushing*, ed. Jesse Green (Lincoln: University of Nebraska Press, 1978), 13.

⁷⁸³ Cushing, *Zuni Breadstuff*, 17-18.

⁷⁸⁴ Rorer, *Recipes Used in Illinois Corn Exhibit Model Kitchen Woman's Building Columbian Exposition*, 3.

⁷⁸⁵ "Mrs. Rorer Speaks About Bread," 5.

Following the Zuñi recipes, for instance, Rorer's souvenir cookbook introduced "The F.F.V.'s Corn bread." Because this nodded, in name, to the First Families of Virginia, we might speculate that Rorer and her contemporaries imagined it as superior to that which Indian families enjoyed before John Smith arrived to what became Virginia. Next, not unlike James Fennimore Cooper's erstwhile frontiersman, "Natty Bumppo," came instructions for making "Adirondack Corn Bread." Shortly thereafter, Rorer included a selection of recipes for hominies, mushes, and scrapple. These dishes could have come straight out of western or southern kitchens at mid-century. Finally, the recipes toward the end of the booklet epitomized American industrial progress. They offered directions for using branded goods like Kingsford's Cornstarch and Fairbank's Cottolene when making dishes like "Blanc Mange," "Cream of Corn-Starch Pudding," and "Vanilla Soufflees."⁷⁸⁶ Collectively, Rorer's souvenir corn recipes, which began by acknowledging Native women's corn creations but, thanks to the civilizing and scientific culinary authority that her expertise carried, blazed across geographic and temporal "frontiers." In so many ways, her corn recipes were perfectly suited to the "White City's" celebration of American progress.

After the Exposition closed in November, Rorer and the Board expressed pleasure at what they had done to augment public interest in corn as human food. Over 225,000 people had observed Rorer prepare hundreds of corn dishes by the fair's closure, none of which was, reportedly, repeated more than once or twice.⁷⁸⁷ And while Rorer would speak about being "lonely...without my corn flour around me" after the fair, she was aware that her corn demonstrations had resonated with many fairgoers.⁷⁸⁸ Over 60,000 American and international visitors to her kitchen registered to have her *Household News* sent to them, and she interpreted their interest in her publication as broad approval for what she, "the only paid and recognized authority on the subject," had accomplished along the lines of corn cookery.⁷⁸⁹ Many of the publication's readers, moreover, wrote to her after the exposition to explicitly comment on how much they had enjoyed her lessons

⁷⁸⁶ ———, *Recipes Used in Illinois Corn Exhibit Model Kitchen Woman's Building Columbian Exposition*.

⁷⁸⁷ Field, "Women and the Fair," 39; Weigley, *Sarah Tyson Rorer, the Nation's Instructress in Dietetics and Cookery*, 91-97; Rorer, *Recipes Used in Illinois Corn Exhibit Model Kitchen Woman's Building Columbian Exposition*; "Teach Them How to Cook."

⁷⁸⁸ "Where Corn Beats Wheat," *The Galveston Daily News*, December 8, 1893, 2.

⁷⁸⁹ Sarah Tyson Rorer, "Household News," *Household News* 2, no. 4 (1894): 380.

in corn cookery and—perhaps having lost the souvenir booklets she and Cushing had created—to request copies of the corn recipes she prepared.⁷⁹⁰ Heeding her public's ongoing interest in corn, Rorer reiterated the healthfulness and cheapness of cornbread when mixed with wheat when she lectured at the Women's Congress of Household Science shortly thereafter.⁷⁹¹ She also continued to “deplore[]the fact that” most Americans shunned “corn flour,” and, hoping to further whet American appetites for the grain, pointed out “its use in the most civilized quarters of Europe as evidencing good taste and judgment.”⁷⁹² The final report produced by Mrs. Oglesby and her peers expressed similar degrees of satisfaction. Commissioners from Sweden and Japan, they detailed, had sent corn samples to their home countries, while a Japanese newspaper “reported at length” on the corn kitchen and millers were reporting an “unexampled demand for corn.”⁷⁹³ The city of Copenhagen may have even become home to a cooking school modeled after Rorer's kitchen.⁷⁹⁴

ENVIRONMENTAL, ECONOMIC, AND POLICY SHIFTS, 1893-1897

Back across the Atlantic, Murphy had continued to exhibit corn in Copenhagen through early May of 1893, extolling the remarkable possibilities of Scandinavia as a relatively untapped market for American farmers.⁷⁹⁵ But that month, Secretary Julius Morton, the new head of the USDA, called Murphy back to the United States so that Morton might understand what Murphy had accomplished.⁷⁹⁶ When Murphy returned to Europe from his sojourn in the U.S. at the end of the summer, he carried a new set of instructions. Instead of promoting human consumption of corn as a grain, as he had been

⁷⁹⁰ ———, “Answers to Inquiries,” *Household News* 2, no. 2 (1894): 310. Sarah Tyson Rorer, “Corn Flour,” *Household News* 2, no. 5 (1894): 431-432. Rorer, “Answers to Inquiries,” 640. Rorer, “Answers to Inquiries,” 551, 546; Rorer, “Answers to Inquiries,” 636. For later reprints of her corn kitchen recipes, see “A Plea for Domestic Work,” *The Milwaukee Journal*, February 22, 1895, 21; “The Corn of 1895,” *The Daily Inter Ocean*, July 21, 1895, 28.

⁷⁹¹ “Mrs. Rorer Speaks About Bread,” 5.

⁷⁹² “Where Corn Beats Wheat,” 2. Mrs. Rorer made final remarks about the corn kitchen in the November issue of “Household News,” her magazine. In that issue, she offered “A farewell word about the Corn Kitchen at the World's Fair.” See “Magazine Notices,” *The Milwaukee Journal*, November 21, 1893, 8.

⁷⁹³ Weigley, *Sarah Tyson Rorer, the Nation's Instructress in Dietetics and Cookery*, 95. Here Weigley cites the *Report of the Illinois Woman's Exposition from 1891 to 1894*, (Springfield: 1895) 28-30. I have not examined this, however.

⁷⁹⁴ *Ibid.* If so, that would have probably been Murphy's doing.

⁷⁹⁵ “Our Maize Missionary.” See also “Corn to Go Abroad,” 5.

⁷⁹⁶ “Corn to Go Abroad,” 5; “Advertise Other Foods. More Work Proposed for “Cornmeal Murphy,” ” *Bismark Daily Tribune*, April 7, 1893.

doing, he would help the USDA promote products manufactured from corn, especially glucose. “Most of the beer in the United States,” Morton explained that summer, “is made largely of corn.” Given this model, Morton deduced that German brewers might emulate the practices of Milwaukee brewers. To facilitate this potential market for American corn, the Secretary appointed a “bright, well-educated” Milwaukee brewer named John Mattes, who had also been a Nebraska senator, to assist Murphy in his new task. Congress granted the two a \$10,000 appropriation to pursue this line of development and to boost pork consumption. The larger idea, one paper explained, was to promote “free trade between all the world” and to foster American expansion into “the marts of commerce.” With these lofty goals set out, therefore, Murphy sailed for Europe on August 9, 1893, planning to promote corn in beer production in “Denmark, Norway and Sweden, Holland and Belgium.”⁷⁹⁷ Over the next year, the USDA reallocated its Congressional budgetary allocation to support the corn-centered beer-making mission wholeheartedly. Whereas the Department had produced 10,000 pamphlets on the “Use of Indian Corn in Europe” for German, French, Spanish, and Scandinavian audiences in 1892, by 1894, its corn publications focused only on the use of “Indian Corn in the Manufacture of Beer.”⁷⁹⁸

Unfortunately for Murphy’s new mission, drought across key corn-growing regions prompted a precipitous drop in corn production during 1894, which in turn stimulated a temporary spike in corn prices and decreased demand from foreign countries for American Indian corn, for glucose or other purposes. These factors prompted Morton to end the Colonel’s appointment as special agent for corn, effective January 1, 1895.⁷⁹⁹

⁷⁹⁷ See Frank G. Carpenter, “Farmer Statesman,” *Morning Oregonian*, July 9, 1893, 14; C.H. Merrillat, “Agricultural Evangelists,” *The Atchison Daily Globe*, July 21, 1893; “To Advocate Corn in Beer Making,” *The Milwaukee Sentinel*, August 8, 1893, 3.

⁷⁹⁸ In the Fiscal Year (FY) ending June 30 1891, the Congressional Printing Office printed 10,000 copies of *Report on the Use of Maize (Indian Corn)*. In FY ending June 30, 1892, it printed 2,500 copies each of the German, French, Spanish and Scandinavian language versions of *Report on the Use of Indian Corn in Europe*. In FY ending June 30, 1893, the CPO printed 2,000 copies of *Indian Corn in the Manufacture of Beer* in English and 3,000 in German, and another 2,500 of the Scandinavian edition of *Report on the Use of Indian Corn in Europe*. But in FY ending June 30, 1894, after Morton issued his directives to Murphy, the CPO only printed 3,500 copies of *Indian Corn in the Manufacture of Beer*. See “Publications of the U.S. Department of Agriculture: Office of the Secretary,” in *Report of Congressional Printing Investigation Commission* (Washington: Government Printing Office, 1906), 307-308.

⁷⁹⁹ Editor Herbert Myrick’s explanation for the context in which Murphy’s work was terminated was that “When prices are unusually high in seasons following a domestic crop shortage, . . . exports are materially reduced.” See Herbert Myrick, *The Book of Corn: A Complete Treatise Upon the Culture, Marketing and*

In hindsight, however, it seems that Secretary Morton reacted too quickly to short-term economic fluctuations, for corn production skyrocketed during the second half of the decade and caused prices to drop anew.⁸⁰⁰ As one Mr. Snow explained at a meeting of the Illinois Farmers' Institute in early 1899, corn prices averaged forty-two cents per bushel between 1890 and 1894. But between 1895 and 1898, repeated cycles of overproduction forced that price down to twenty-five cents per bushel. "Now so long as that continues," he cautioned, "you must naturally expect a low price, because the surplus will bear down."⁸⁰¹ At the end of the nineteenth century, therefore, the nation's corn producers and the industries which depended on moving and processing the grain found themselves at the same crossroads confronting their predecessors at the end of the 1870s and 1880s: that is, they desired to raise corn prices, either by decreasing production or finding ways to increase consumption. Again, they chose the latter. And again, they turned to women as a means to promote that consumption. But while white women like Mrs. Scott, Mrs. Murphy, and Mrs. Rorer would continue to serve as figures of culinary authority, and while women of color, on whom Mrs. Scott, Charles Murphy, and Mrs. Rorer's imaginations had fixated, would serve as figures of culinary authenticity, women themselves gradually became more ceremonial figures. During this iteration of corn consumption propaganda, white men affiliated with government, university, and corporate interests—along with male, French-trained chefs—would work together in unprecedented ways to push corn consumption forward in their quests to cultivate consumer demands and to raise prices.

MAKING MARKETS VIA THE AMERICAN MAIZE PROPAGANDA

Uses of Maize in America and Elsewhere, for Farmers, Dealers, Manufacturers and Others: A Comprehensive Manual Upon the Production, Sale, Use and Commerce of the World's Greatest Crop (New York: Orange Judd Company, 1903), 239-240. Another explanation for the termination of Murphy's appointment, however, points to a controversy. During the early 1890s, Murphy began to communicate with someone supposing to be one Charles Frank Dewey with the *New York Tribune*. According to two historians, he was a "scoundrel." After Dewey gained letters of introduction from Murphy, he took them to Secretary Rusk, who in turn appointed him as Murphy's assistant. Dewey then went to Europe and supposedly used the German press to attack Murphy, in which he "ridiculed the sacred cause of corn." This appears to have been towards the end of 1893. See Curti and Birr, *Prelude to Point Four*, 27.

⁸⁰⁰ Corn prices per bushel were higher between 1890-1894 than they were in the late 1880s or the years between 1895 and 1900. See Agriculture, "Quickstats."

⁸⁰¹ Institute, *Report of the Board of Directors*, 209.

Although the fall of 1897 brought the third super-abundant harvest to the Corn Belt in a row, and with it, low prices for corn, it also brought new prospects. Three months earlier, Congress quit dithering and belatedly accepted France's invitation to participate in the Paris Exposition of 1900.⁸⁰² Moreover, the nation was starting to enjoy greater corn exports.⁸⁰³ Eager for the economic revitalization that even healthier grain exports might mean for the nation's farmers, Herbert Myrick, the influential editor behind the widely-read *Orange Judd Farmer* and the *American Agriculturalist*, proposed utilizing the forthcoming exposition to generate European demand for corn as human food once again. Other newspapers parroted his suggestions and argued that efforts by Hewitt and Murphy yet provided models for "popularizing American corn in Europe."⁸⁰⁴

Heeding Myrick's call, governors, boards of agriculture, state experiment stations, and universities appointed some 200 delegates to gather for a "corn convention" in Chicago in February of 1898. The gathering, they hoped, would generate novel ideas for increasing domestic and international familiarity with corn both as a food and as a manufactured product.⁸⁰⁵ After Myrick himself opened the conference, attendees elected Clark E. Carr, who had been the minister to Denmark when Charles and Mrs. Murphy prepared the 1893 American corn banquet in Copenhagen, as president of the organization they quickly named the "American Maize Propaganda" (AMP).⁸⁰⁶ They also elected B.W. Snow, who was affiliated with the *Orange Judd* farm publication empire and was or would shortly become a Chicago alderman, as the AMP's Secretary.⁸⁰⁷

As President of the new AMP, Carr set forth a number of goals. First, he hoped to divert Congressional appropriations for the work of distributing corn seeds to farmers

⁸⁰² On the United States' late acceptance of France's invitation in July 1897, see Ferdinand W. Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 1," (Government Printing Office, 1901), 12-14.

⁸⁰³ "Corn at the Paris Exposition," *The Milwaukee Sentinel*, January 15, 1899, 4.

⁸⁰⁴ The earliest such call I have encountered is "Corn at Paris in 1900," 6. For Myrick's likely role in instigating this effort, as editor of *Orange Judd Farmer* and the *American Agriculturalist*, see "The Chicago Corn Congress," *Public Opinion, a comprehensive summary of the press throughout the world on all important current topics* 24, no. 9 (1898): 283; Charles V. Mapes, *Printer's Ink* 39, no. 7 (1902): 49.

⁸⁰⁵ "Day of King Corn," 10.

⁸⁰⁶ "The Chicago Corn Congress," 283; "A Johnnycake Campaign," *The Atchison Daily Globe*, March 11, 1898; Lawrence, "Clark E. Carr, Late Honorary President of the Illinois State Historical Society. A Tribute," 88. See also Carr, *My Day and Generation*.

⁸⁰⁷ "For a Corn Exhibit," *The Butte Weekly Miner*, January 19, 1899, 12; Carr, *My Day and Generation*, 427.

around the nation, a holdover from activities that the Patent Office had encouraged during the 1850s, and expend the money in exhibiting and advertising corn as a food. Specifically, Carr wanted to reallocate those funds in support of the “corn cooking schools and corn food expositions” which he hoped the AMP might hold at the forthcoming Omaha and Buffalo expositions and “in all the principal cities.” Through these venues, the AMP would “bring the virtues of this crop directly to the knowledge of the masses who most need it,” and by way of Omaha and Buffalo, build interest in promoting corn as a food to Europeans at Paris in 1900.⁸⁰⁸

Second, Carr and other AMP leaders were cognizant of the fact that the nation’s rapidly increasing wheat crop was enabling Americans to purchase flour at more affordable prices than ever before. They hoped, therefore, to use corn flour as a salvo for corn growers, who were, ostensibly, suffering because of the popular rejection of corn bread in favor of wheat.⁸⁰⁹ At their convention, therefore, and as an example of the work they hoped to accomplish in Paris, the AMP began their project of “educat[ing] Americans up to a higher appreciation of corn flour.”⁸¹⁰ To show the product’s potential, they piggybacked on the work Sarah Tyson Rorer had undertaken with corn flour in Chicago in 1893 and opened a corn kitchen at their organizing convention, where they hired one Mrs. Auman, a “champion biscuit maker,” to “show[] what can be done with the fruit of the cob.”⁸¹¹ Serving “every kind” of corn product “in tempting style,” and for free, Auman worked with other “chefs” to demonstrate corn “as an article of food.”⁸¹²

Third, Carr hoped to engage various stakeholders in the projects of redirecting Congressional appropriations so as to promote corn as food. His intention in leading the AMP forward, one paper summarized, was to “boom corn as it never was boomed before.”⁸¹³ Raising the price of corn by one cent per bushel, he argued, would generate \$20,000,000 for American farmers, a tenth of which would go to Illinois alone.⁸¹⁴ To

⁸⁰⁸ "To Extend the Dominions of King Corn," *The Morning Oregonian*, February 17, 1898, 4. See also "The Greater Use of Indian Corn," *The North American*, March 2 1898, 3; "To Increase Use of Corn," *The Indiana State Journal*, March 9, 1898, 2.

⁸⁰⁹ "To Extend the Dominions of King Corn," 4.

⁸¹⁰ "A Johnnycake Campaign," 2.

⁸¹¹ *Ibid.*

⁸¹² "Day of King Corn," 10.

⁸¹³ "To Extend the Dominions of King Corn," 4.

⁸¹⁴ "Farmers Should Plant Sugar Beets in Place of Corn," *The Beet Sugar Gazette* 1, no. 4 (1899): 1.

make such booming a reality, Carr proposed building bridges between and among farmers, industrialists, and the government. Collaboration of this kind, he believed, was the best means to educate “the masses” and shape legislation.⁸¹⁵ The AMP, a Milwaukee paper described, sought “to secure the cooperation of every farmer in the country, especially in the great corn belt, who produces corn, and of the manufactures who...prepare corn and cornstalks for consumption and commercial uses.”⁸¹⁶

While the idea of a corn kitchen as a means for stimulating consumption was no longer novel, his idea for partnership diverged from the activities his corn-boosting predecessors had undertaken. In 1877, Abram Hewitt’s Congressional peers rejected his proposal for funding a corn kitchen at the 1878 Paris Exposition out of skepticism for government support of manufacturers’ interests. Twelve years later when Mary Scott boosted corn in Iowa, she did so as a private woman, holding only an informal relationship to the state. Like her, Charles Murphy initially worked as a kind of corn maverick, unlinked to industry (and in fact rejected for funding by boards of trade) before he was able to convince the USDA to support his efforts. Nor did others in the early 1890s advocate explicit links between farmers, industry, and the state. USDA Secretary Jeremiah Rusk, for all his support of Murphy’s activities, had “wished to emphasize the necessity...for vigorously following up the efforts of this Department by the individual or combined efforts of parties interested in the trade in this product.”⁸¹⁷ Likewise, in spite of his support for the corn boosting that Charles and Mrs. Murphy had undertaken overseas, George William Hill, Murphy’s friend in the USDA, had cautioned that “American dealers in corn and its products,” not the government, must work on behalf of their own “future and permanent benefit.”⁸¹⁸ The Illinois Women’s Board had operated their corn kitchen on similar principals.

Carr, however, crafted the AMP as a great unifier from the start. Private industry, he insisted, could work *with* the government on behalf of their shared interests in

⁸¹⁵ "To Extend the Dominions of King Corn," 4; "The Greater Use of Indian Corn," 3; "To Increase Use of Corn," 2.

⁸¹⁶ "Larger Use of Corn," *The Milwaukee Sentinel*, March 2, 1898, 5.

⁸¹⁷ Report on the Use of Maize, 1891, p 3

⁸¹⁸ Hill, "Indian Corn: Its Use in Europe as a Human Food," 297-298.

increasing foreign demands for American corn.⁸¹⁹ Shortly after its creation, the AMP formed national, state, and district levels of organization and outlined its plans to work alongside “Allied industries, [such] as boards of trade, commercial bodies, manufacturers of corn implements, corn foods and other products, corn, dairy and poultry associations, and live stock societies.”⁸²⁰ Charles Murphy’s son soon joined Carr’s efforts to use collaborative approaches to promote corn to Europeans. Neither one individual nor a “private firm,” he asserted, could adequately undertake such a project. Instead, the younger Murphy insisted, the government ought to directly assist its “seven million corn growers” by working with the AMP to increase foreign demands for corn, which would in turn increase prices and the value of farmers’ lands.⁸²¹

Carr and Snow left the AMP’s organizing convention with high hopes that Congress would support their plans for the Paris exhibition by funding their lofty visions.⁸²² By January of 1899, Ferdinand Peck, the U.S. Commissioner for the Paris Exposition, had thrown his support behind the AMP’s proposal for an Indian corn kitchen and restaurant in Paris and offered to cooperate on the project.⁸²³ To their dismay, however, the AMP learned that the entire Congressional appropriation for the U.S. agriculture display at Paris would encompass no more than \$75,000, an amount that would not come near to enabling the showing of corn as human food that they desired.⁸²⁴ While they had started to approach Farmers’ Institutes (state funded agricultural knowledge-disseminating entities that arose between the 1870s and 1880s and which chapter six discusses in greater depth) and major Boards of Trade to press State Legislatures to fund their work towards the end of 1898, their fundraising became more

⁸¹⁹ There was some doubt about this, however. At least one paper wrote that “it is urged...that the work of advertising...is the province of individuals, not of the government. The Chicago corn conference may, and probably will, fail to secure a transfer of the free-seed fund to the corn-advertising fund, but it will nevertheless be of great practical advantage...” “To Extend the Dominions of King Corn,” 4.

⁸²⁰ “A Johnnycake Campaign.”

⁸²¹ “Day of King Corn,” 10.

⁸²² “News of the Week,” *The Indiana State Journal*, March 9, 1898, 2; “A Johnnycake Campaign.”

⁸²³ “Exploiting Corn Food,” *Morning Oregonian*, December 5, 1898, 4; “Corn across the Sea: Plan to Feature It at the Paris Exposition.,” *The Washington Post*, January 8, 1899, 23. Peck sought to increase the \$650,000 Congress allotted in total for the Exposition to \$1,000,000. See Ferdinand W. Peck, “The United States at the Paris Exposition in 1900,” *The North American Review* 168, no. 506 (1899): 32.

⁸²⁴ “Exploiting Corn Food,” 4; “Corn across the Sea: Plan to Feature It at the Paris Exposition.,” 23. Peck sought to increase the \$650,000 Congress allotted in total for the Exposition to \$1,000,000. See Peck, “The United States at the Paris Exposition in 1900,” 32.

intense in early 1899.⁸²⁵ To bridge the gap between his dreams and financial reality, Carr proposed that leading corn states appropriate .0025 of their corn crop's value in support of the AMP's work. That would generate some \$100,000 from Illinois alone, the *Milwaukee Journal* calculated, and would draw in more than half a million dollars for the propaganda work all told. Such an amount would be "a splendid fund," it enthused, and if carefully spent, would help bring corn to Europeans' attention "in such a manner that they cannot help remembering it as one of the principal objects of interest." The AMP's exhibit, the *Journal* admonished, "must be one of the sights and to do this, the cost of the exhibit must necessarily be very large."⁸²⁶

By the spring of 1899, word about the AMP's efforts and their proposals for Paris were spinning farther and farther afield. Both the *Atchison Daily Globe* and the *Butte Weekly Miner* published rather fanciful images of a giant ear of corn, not unlike the Sioux City corn palaces a decade earlier, as housing "the corn palace" which would "introduce corn to Europeans in a manner which they will not easily forget." **[Image 4.8]** This tower, the *Globe* assured, along with the display of corn products it would showcase, the "Indian corn kitchen and restaurant" it would contain, and the souvenir samples of corn flour it would offer, would be a "climax" to the work that "cornmeal missionaries" had conducted in former years; in all number of spectacular ways, the paper promised, the space would share "all the innumerable dishes that Americans relish" with "the people coming from all lands."⁸²⁷

⁸²⁵ J.E. Downing, "Corn," in *Forty Fifth Annual Report of the Board of Directors of the Iowa State Agricultural Society, for the Year 1898, to the Governor of the State of Iowa*, Ed. By P.L. Fowler, Secretary (Des Moines: F.R. Conaway, 1899), 362-365; Institute, *Report of the Board of Directors*, 208-209; George F. Stone, "Report of the Board of Directors," in *The Forty-First Annual Report of the Trade and Commerce of Chicago for the Year Ending December 31, 1898, Compiled by the Board of Trade by George F. Stone, Secretary* (Chicago: J.M.W. Jones Stationery and Printing Co., 1899), lix-lxvii; "For a Corn Exhibit," 12; "Corn Exhibit at Paris. Indiana and Other States Will Be Asked to Make Appropriations," *The Indiana State Journal*, January 25, 1899, 3; "The American Maize Propaganda..." *Arkansas Democrat*, March 5, 1899, 2. For more on farmers' institutes, and their general establishment by 1887, see Jeffrey W. Moss and Cynthia B. Lass, "A History of Farmers Institutes," *Agricultural History* 62, no. 2 (1988).

⁸²⁶ "Corn at the Paris Exposition," 4.

⁸²⁷ "Palace of Corn," *The Atchison Daily Globe*, January 23, 1899; "The Great Paris Exposition of 1900," *The Butte Weekly Miner*, May 11, 1899.

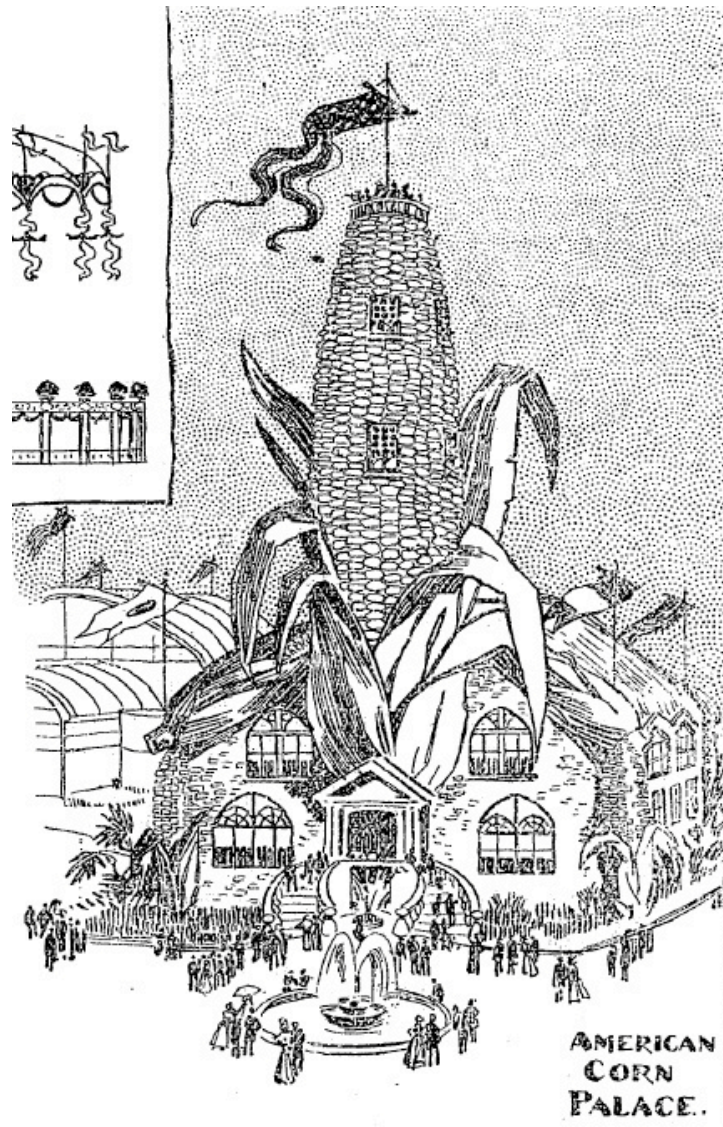


Image 4.8 / Proposed American Corn Palace, Paris, 1900.

Not everyone was on board with the AMP's agenda, however. One delegate to the Illinois Farmers' Institute countered Snow's request for funding by asserting that it would be better to convert corn to meat for sale than to promote products made from the grain as a food. Cornmeal spoiled on the journey across the ocean, he pointed. It would be more lucrative and would utilize more of the crop, he added, "if we would feed it up" in the U.S. before sending it to foreign nations.⁸²⁸ C. Wood Davis, writing from Peotone, Kansas in the spring of 1899, argued that the AMP's recent suggestion that Germany's 364% increase in the consumption of U.S. corn between the 1880s and 1896 was due to

⁸²⁸ Institute, *Report of the Board of Directors*, 210.

human demand (and by extension, to Charles Murphy's influence as an agent of the USDA) was "more than questionable." Instead, he argued that Europeans' growing demands for hog meat, when combined with their own limited pasturage for producing the food those animals required, had actually driven the recent growth in U.S. corn exports. Because of the difficulties he foresaw in materially changing a "national dietary," he predicted that the AMP's efforts would be futile.⁸²⁹ And though sugar beet producers had their own reasons for diminishing the AMP's goals—namely, new developments in corn refining technology were permitting sugars derived from corn, as chapter six explains, to compete with the sugars from their beets—they interjected that corn cultivation "impoverishes the land" because it was frequently "carried to excess," and implied that such promotional work would be ecologically unwise.⁸³⁰

"AUNT JEMIMA" IN THE KITCHEN AT PARIS

In spite of such doubts, the idea of a Paris corn kitchen as a means to boost U.S. corn exports took clearer shape during the fall of 1899. That September, the Secretary of the U.S. Commission to the Paris Exposition reiterated that the proposed "corn kitchen" would lie at the heart of the U.S. grain exhibit.⁸³¹ If the grain exhibit to which he referred was that which the USDA's Division of Cereal Crops was then assembling, then the Commission's Secretary was imagining the corn kitchen as a supplement to the "scientific and commercial" samples of corn and the models of corn elevators, railroads, and corn cribs which the USDA was seeking to "help Europeans to get some idea of the scale on which we do business over here."⁸³² Indeed, while direct USDA support for the corn kitchen is unclear, the department was keen on making their grain exhibit attractive. Because grains in containers "alone would make a rather dry show," confessed B.T.

⁸²⁹ C. Wood Davis, "Bread, Meat, and Population," *Self Culture* 9, no. 2 (1899): 184-185.

⁸³⁰ "Farmers Should Plant Sugar Beets in Place of Corn," 1.

⁸³¹ "Corn Flapjacks in Paris," *Weekly Register-Call*, September 8, 1899. "At the Paris Exposition," *Bangor Daily Whig & Courier*, September 12, 1899.

⁸³² M.A. Carleton, Assistant in charge of Cereal Work, to Prof. W.M. Hays, Agricultural Experiment Station, St. Anthony Park, Minn., May 25, 1899, p. 1; M.A. Carleton to G.A. Smith, Yankton Co., South Dakota, June 23, 1899, p. 52; B.T. Galloway, Chief of Division, to Prof. Eugene Davenport, Agricultural Experiment Station, Urbana, Ill, October 6, 1899, p. 55g; Albert Woods to J.H. Record, Manager Barnett & Record Co., 604 Corn Exchange, Minneapolis, Minn., Oct 19, 1899, p. 217; Albert Woods to Globe Elevator Co, Duluth Minn., Oct. 7, 1899, p. 450f; Albert F. Woods to Harvey E. Heath, of the Nebraska Farming Company, Omaha., Oct. 21, 1899, p. 288-289; vol. I; Letters Sent Relating to the Paris Exposition of 1900 (1899-1900) (LSPE); Division of Cereal Crops; Record Group 54 (RG 54); NACP.

Galloway, Chief of the USDA's Division of Cereal Crops, he was "desirous of obtaining something to liven it up."⁸³³ To none other than B.W. Snow, the secretary of the AMP, Galloway explained, "As you know, half of an exhibition is the decorative part, and anything that you can obtain in the way of sheaves of wheat, bundles of cornstalks, or other material will be very acceptable."⁸³⁴ The organizers of the USDA's grain exhibit even approached the publishers of *Leslie's Weekly* in hopes of using the magazine's recent images of "Kansas children in corn clothing" to enhance the educational exhibit.⁸³⁵ It is entirely plausible, therefore, that the Commission and the USDA reached a consensus by late fall that a corn kitchen would be precisely the thing to "liven...up" the nation's demonstration of its agricultural prowess. However they formalized their support for a corn kitchen at Paris, leaders agreed, by December, that the federal government would supply \$10,000 to turn the AMP's proposal into reality.⁸³⁶ Moreover, Peck formally commissioned Carr and Snow during the first months of 1900 to organize a corn kitchen and eventually turn it over to the Commission's agricultural representative for management.⁸³⁷

⁸³³ B.T. Galloway, Chief of Division, to Messrs. Peter Henderson & Co., NYC., October 12, 1899; Vol. I, p. 123-124; LSPE; RG 54; NACP.

⁸³⁴ B.T. Galloway to B.W. Snow, Orange Judd Co., Chicago., Oct. 12, 1899; Vol. I, p. 153-154; LSPE; RG 54; NACP.

⁸³⁵ Albert Woods to Publishers of *Leslies Weekly*, New York, November 1, 1899, p. 429; Albert Woods to John A. Sleichter, *Leslie's Illustrated*, Nov. 4, 1899, p. 483; Vol. I; LSPE; RG 54; NACP. The images the USDA requested were from *Leslie's Weekly*, October 28, 1899, 335, 346-7, 350.

⁸³⁶ "An American Corn Kitchen," *The Atchison Daily Globe*, December 12, 1899, 2. For discussion of the kitchen not being settled until fall 1899, see also Ferdinand W. Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," (Government Printing Office, 1901), 395.

⁸³⁷ According to Carr, Commissioner Peck asked the AMP president to organize a corn kitchen for the Paris Exposition, to which Carr consented, on the grounds that Snow act as his assistant. Carr 427. However, according to Snow, his own commission "to arrange for the maintenance of the corn kitchen," began on January 1, 1900, and thus predated that of Carr's by one month. Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 397. Peck himself dated authorization for Carr and Snow "to perfect the scheme in detail" to the fall of 1899, and suggested that they acted under his instructions. Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 395. His record of hires, however, clarifies this yet further: Snow had been hired as a cereal expert for the expo in June, 1899. He was rehired as a Corn Kitchen Expert in January, 1900. His appointment there, for which he received \$1,800, lasted until August 31, 1900. Carr's appointment lasted between February 1 to May 31, 1900, though he received the more ample sum of \$2,400 for his efforts. On hires, see Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 325-326. A journalist later suggested that the two men from the AMP worked "under the direction of Mr. [Charles R.] Dodge," of the Department of Agriculture. J.S. Crawford, "The Lesson of the Maize Kitchen at Paris," *Forum*, October 1900, 160. On the corn kitchen being "established and operated by the American Maize Propaganda," see

Plans for the corn kitchen developed rapidly, thanks to consensus among the AMP, the heads of the Commission to the Paris Exposition, and the USDA. As the AMP's publicity blitz had foreshadowed and as Carr recalled in his memoir, their "object" remained "to make a market for...corn."⁸³⁸ At the corn kitchen, to no surprise, Snow and Carr "decided to serve corn foods as perfectly prepared as possible, entirely free of charge, to every one who came."⁸³⁹ The space that it would occupy—the end of the third floor of the U.S. Agricultural Annex, a building situated next to the larger Agricultural Palace—lay along the Exposition's Champ de Mars.⁸⁴⁰ Though their location served them well enough, the one long hall to which they were assigned was not conducive to shaping a visual spectacle; unlike Sioux City's corn palaces or Murphy's corn pavilions, it was neither visible from any sort of distance nor did it contain room to incorporate towering works of agricultural artistry. In this sense, it was more akin to Rorer's Illinois corn kitchen, though it made do with an even smaller footprint than her lecture platform. Space constraints were so tight that Snow found it difficult to "provide the necessary culinary conveniences and at the same time leave sufficient room for the general public."⁸⁴¹ After researching "many restaurants and lunch rooms" for solutions to their dilemma, Carr and Snow drafted and built a forty foot long counter, which they fitted with stools on one side and two gas ranges and cooking implements on the other.⁸⁴²

[Image 4.9]

When they first began to craft the exhibit, Carr anticipated displaying "only the cheapest of corn foods and announc[ing] the cost to show how cheap it was."⁸⁴³ In their minds, promoting the grain as an affordable human food ought to be the cornerstone in their mission of assisting American farmers. Greater demand for the grain *because* it was tasty and cheap, they believed, would increase the average price per bushel of corn.

Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 1," 56.

⁸³⁸ Carr, *My Day and Generation*, 433.

⁸³⁹ *Ibid.*, 427-428.

⁸⁴⁰ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 1," 55-56; Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 465.

⁸⁴¹ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 397.

⁸⁴² Carr, *My Day and Generation*, 429; Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 397.

⁸⁴³ Carr, *My Day and Generation*, 428.

Indeed, months before, Snow had given Illinois farmers something of an ultimatum: “either you must grow less corn—fit the production for the demands—or you will have to increase the consumption.” Because “to shorten production is an impossible thing,” he argued, there must be “a larger consumption of corn.”⁸⁴⁴

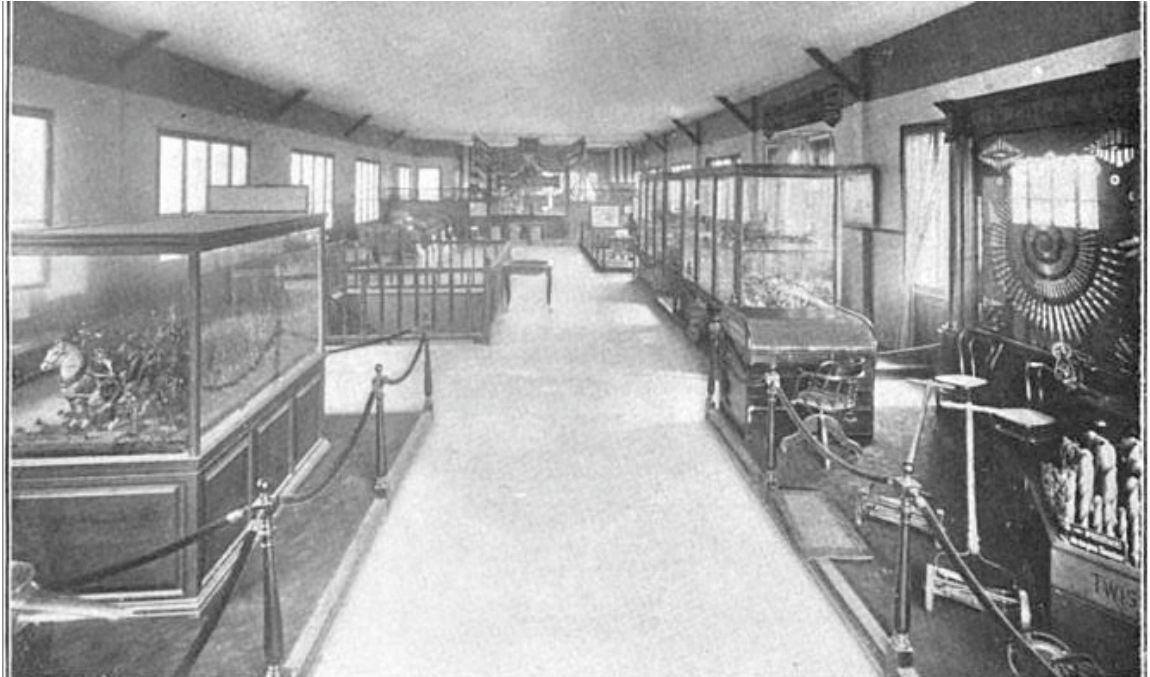


Image 4.9 / Third Floor, Agricultural Annex, with Corn Kitchen at Extreme End, Paris, 1900.

Although the secretary for the U.S. Commission for the Paris Exhibition of 1900 had previously asserted that “American girls” (who, presumably, would have been white and native-born) would make “a variety of corn foods” at the Exposition and in so doing, augment foreign demand, this was not to be the case.⁸⁴⁵ Indeed, given their spatial constraints, Carr and Snow needed to attract the visitors who would taste their cheap foods in ways that would not rely on large features. After some thought, they surmised

⁸⁴⁴ Institute, *Report of the Board of Directors*, 209.

⁸⁴⁵ See “Corn Flapjacks in Paris.”; “At the Paris Exposition.” For a time, one “Miss Emma Sickles,” a Chicago resident who had taught at Pine Ridge and protested the depiction of Indians at the 1893 Chicago Exposition is said to have contemplated organizing the proposed Paris corn kitchen. She was not, however, selected to do so. On Sickles’ roles at Pine Ridge, at the Exposition, and her political views, generally, see L.G. Moses, *The Indian Man: A Biography of James Mooney* (Lincoln: Bison Books, 2002), 79-80; Lee D. Baker, *From Savage to Negro: Anthropology and the Construction of Race, 1896-1954* (Berkeley: University of California Press, 1998), 59-61; Rydell, *All the World’s a Fair: Visions of Empire at American International Expositions, 1876-1916*, 63. On Sickles’ work with the Sioux in Chicago’s Folklore Society and her involvement alongside none other than Chicago lard manufacturer N.K. Fairbank, see also “Local Meetings and Other Notices,” *The Journal of American Folk-Lore* V, no. XVI (1892): 82. On Sickles’ interest in the corn kitchen, see “End of the Century Women,” *The North American*, October 16 1899, 9.

that showcasing *authentic* corn cookery, which they defined as “what is colloquially known as plantation cooking,” would provide the novelty that would, in turn, generate potential corn consumers.⁸⁴⁶ Instead of “American girls,” Carr and Snow “employed a colored woman known as Aunt Jemima, who,” they recalled, “was quite well known through having cooked corn foods at many fairs and corn exhibits.”⁸⁴⁷

Why the switch? What would “Aunt Jemima” bring to the proverbial table that (presumably white) “American girls” could not? Sarah Rorer, after all, had successfully entertained more than two hundred thousand visitors to the Illinois corn kitchen earlier that decade. Like her, Mrs. Murphy had ably demonstrated corn’s merits across Europe. The decision by Carr and Snow to turn to “Aunt Jemima,” or more accurately, to reincarnate the idea of “Aunt Jemima” in Paris, hinged on a long history, especially in the United States, whereby entrepreneurs displayed non-white people as “exotic” or premodern, and thereby “authentic,” in pursuit of paying audiences. Indeed, the onset of the market revolution in the United States had created no end of possibilities for entrepreneurs to display bodies, clothing, and associated signs of cultural differences for profit throughout the nineteenth century. Displays of Chinese people in New York during the 1830s and 1840s, for example, flourished because they served both as “edifying curiosities” for white American audiences—that is, a means through which viewers discovered their place in the world—and also as “successful money-making scheme[s]” for those putting on the display.⁸⁴⁸ The liminality of P.T. Barnum’s mid-century “living curiosities,” meanwhile, encouraged members of the nascent middle class to untangle their “attitudes toward race, class, gender, nationality, sexuality, and

⁸⁴⁶ Carr, *My Day and Generation*, 428.

⁸⁴⁷ Ibid. Though the two men divided many of the tasks associated with making the corn kitchen functional, Carr and Snow selected their hires together. Snow tended to the “mechanical details” and “supplies” required to make the kitchen function and collected maize “products and byproducts” from American companies for display, while Carr focused on advertising and managing the kitchen. Charles Murphy’s former collaborator also set himself to the tasks associated with importing “corn-food products” from the U.S. Snow adds that companies sent items he requested at cost or reduced prices (ie ranges from George M. Clark & Co. and utensils by Bramhall du Parquet Company, both of Chicago), and that he corresponded with “all the leading manufacturers of corn foods” in the US, most of whom donated liberally. See Peck, “Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3,” 397-398.

⁸⁴⁸ Tchen, *New York before Chinatown: Orientalism and the Shaping of American Culture, 1776-1882*, 97-99.

disability.”⁸⁴⁹ Many of the people of color who performed as Others for the profits of those who hired them (and for personal wages) served as curious and edifying to white viewers because their carefully constructed signs of otherness helped those doing the looking craft meaningful relationships with the ideas of American national progress, Euro-American racial superiority, or both. Barnum, for example, marketed Joice Heth as George Washington’s 161-year old nurse and authenticated her age and status as the Washington’s former slave through a framed bill of sale.⁸⁵⁰ By paying for the privilege of pondering and determining her wizened black authenticity, visitors imagined themselves as more deeply connected to the father of their country. Heth was hardly the only such “curiosity” whose performance permitted viewers to twine themselves to narratives of national progress. In 1860, following fast on the heels of the Supreme Court’s Dred Scott decision and the publication of Darwin’s *Origin of Species*, and at the apogee of sectional tensions, Barnum marketed a black man, in costume, as the missing link in human evolution. In so doing, he invited audiences to determine the purported man-monkey’s authenticity—and by extension, their ideas about racial and national progress—for themselves.⁸⁵¹ After the Civil War, musical acts like the Georgia Minstrels, which featured former slaves as “real” plantation “darkies,” made forays into the minstrel world previously dominated by white men who performed in blackface. By purporting to depict plantation life as only former slaves could, black minstrels sold their performances as more authentic than those that their white delineators might offer. During years when many white northerners began viewing African American migration as a cause of urban strife, black minstrels’ “authentic” performances of the sunny South became attractive to northern consumers precisely because they fed viewers’ appetites for a romanticized plantation past and in so doing alleviated some of the pains attached to (im)migration and the nation’s uncertain future.⁸⁵² And although Buffalo Bill Cody’s

⁸⁴⁹ James W. Cook, *The Arts of Deception: Playing with Fraud in the Age of Barnum* (Cambridge: Harvard University Press, 2001), 121.

⁸⁵⁰ *Ibid.*, 5-6.

⁸⁵¹ *Ibid.*, 122-126.

⁸⁵² On the Georgia Minstrels, see Eileen Southern, "The Georgia Minstrels: The Early Years," in *Inside the Minstrel Mask: Readings in Nineteenth-Century Blackface Minstrelsy* ed. Annemarie Bean, James V. Hatch, and Brooks McNamara (Hanover, NH: Wesleyan University Press, 1996), 163-176; Nina Silber, *The Romance of Reunion: Northerners and the South, 1865-1900* (Chapel Hill: University of North Carolina Press, 1993), 131-134. On black minstrels in Europe, see Derek B. Scott, *Sounds of the*

Wild West by no means ended practices of displaying nonwhite “authentic” Others for profit and for viewers’ edification, Cody’s creations were especially potent. During the 1880s and 1890s, decades rife with fears about immigration, suffrage, and the supposedly flagging progress of the neurasthenic white race, the showman’s juxtapositions of white, manly displays of vanquished Indian and Mexican performers, on one hand, and dignified renditions of white settlers’ Virginia reel on horseback, on the other, reassured paying middle class audiences that “the story of the West was...one of...(white) Domesticity as the culmination of American history.”⁸⁵³

It was in this milieu, therefore, and with such antecedents that Carr, Snow, and Peck agreed to feature and hire a black woman in their corn kitchen and label her as “Aunt Jemima” so as to promote American-grown corn to Europeans as a good, cheap food. To them, this made a great deal of sense. As we have seen, the idea of Jemima was born of a minstrel context and, in 1889, had been appropriated by an aspiring pancake company.⁸⁵⁴ In 1893, moreover, Nancy Green had performed as Jemima at the Columbian Exposition. From a booth shaped like a flour barrel, she served over 1,000,000 pancakes. Her performances there prompted organizers to award her a medal.⁸⁵⁵ Two years later, the brand’s promoters had inundated the public with Jemima’s supposed biography, a story spun around the character’s affinity for making pancakes while a slave on one Colonel Higbee’s Louisiana plantation.⁸⁵⁶ By the late 1890s, the idea of Jemima was everywhere. In September of 1899, for example, an Atchison, Kansas businessman hired a “colored aunty” to bake corn cakes in front of his storefront for visitors attending the city’s Corn Carnival. Likewise, the woman who eventually

Metropolis: The Nineteenth-Century Popular Music Revolution in London, New York, Paris, and Vienna (New York: Oxford University Press, 2008), 163-167.

⁸⁵³ Warren, *Buffalo Bill's America*, 211-255, esp. 253.

⁸⁵⁴ On minstrelsy and the early origins of Aunt Jemima, see Manning, *Slave in a Box: The Strange Career of Aunt Jemima*, 67-73; Toll, *Blacking Up*, 259.

⁸⁵⁵ Manning, *Slave in a Box: The Strange Career of Aunt Jemima*, 75; Michele Norris, *The Grace of Silence: A Memoir* (New York: Pantheon, 2010), 27.

⁸⁵⁶ Alice A. Deck, ““Now Then, Who Said Biscuits?” the Black Woman Cook as Fetish in American Advertising, 1905-1953,” in *Kitchen Culture in America: Popular Representations of Food, Gender, and Race*, ed. Sherrie Inness (Philadelphia: University of Pennsylvania Press, 2001), 75.

portrayed “Aunt Jemima” at Paris also made griddlecakes “at both the Omaha and Nashville Expositions.”⁸⁵⁷

The legacies that had prompted Mary Scott to wax poetic about the virtues of enslaved women’s corn cookery and Charles Murphy to advertise his Paris and Edinburgh corn pavilions with the image of a black woman at its center had expanded and intensified by the turn of the century. In 1900, Carr and Snow recognized the idea of “Jemima” as an ideal marketing vehicle for their project of showcasing corn’s cheapness to poor European consumers and thereby ameliorating the current and future likelihood of U.S. corn surpluses. Not only might European visitors see a “real” black American woman preparing corn as a food, Carr and Snow seem to have thought, but by biting into a corn cake prepared by an authentic black American woman, visitors would *know*, for themselves, whether American corn was any good. Indeed, “prejudice,” Peck noted, “is largely at the bottom of the nonuse of many of our [corn] products.”⁸⁵⁸ He hoped that Europeans’ acts of physical consumption, enabled as they would be by the corn kitchen’s organizers’ reliance on their assumptions of consumers’ racial stereotypes, would enable Victorian audiences to overcome their culinary prejudices and expand their knowledge of corn’s value as a food.⁸⁵⁹

But shortly after hiring the woman they repeatedly referred to as “Jemima,” Carr, Snow, and Peck underwent a change of heart. Though Carr had expected that demonstrating corn’s possibilities by romanticizing plantation cookery would interest “masses of poor people” who would then “adopt corn as their food,” he soon reconsidered.⁸⁶⁰ Because “the poor” might “have nothing to do” with “cheap” food when marketed as such, Carr decided to promote American corn to a more elite group and in precisely the opposite manner, as “the very best food procurable.” Not only did he hope to induce “the prominent and wealthy and noble...to adopt it,” but he anticipated that by making it so desirable, “the poor will tumble over each other to get it” and “never give it

⁸⁵⁷ On Atchison festival, see “The Corn Carnival Feature of the Santa Fe...” *Atchison Daily Globe*, September 19, 1899. On “Jemima” at Omaha and Nashville, see Crawford, “The Lesson of the Maize Kitchen at Paris,” 160.

⁸⁵⁸ Peck, “Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3,” 396.

⁸⁵⁹ On the significance of visual discernment in Victorian culture, see Tchen, *New York before Chinatown: Orientalism and the Shaping of American Culture, 1776-1882*, 98-99.

⁸⁶⁰ On Carr’s hopes, see Carr, *My Day and Generation*, 428.

up.”⁸⁶¹ Selling American Indian corn as *haute cuisine* in France, therefore, would require a figure with a different kind of image than that attached to a black woman hired to promote corn as a plantation food. Because the woman they planned to celebrate as “Aunt Jemima” could not, they believed, represent modern corn products in the way they now aspired, Snow and Carr selected an Americanized French chef named Henry Weis[s], who then headed the kitchen at Chicago’s Auditorium Hotel, to run their corn kitchen.

Weis[s]’s employment, which would net him \$1,200, began March 1, 1900.⁸⁶² But between the chef’s mid-January selection and his departure for France that spring, Snow “lunched frequently” at the Auditorium to taste the corn dishes with which he encouraged the Frenchman to experiment.⁸⁶³ And what dishes they were. “His corn soup was delicious,” Carr raved, “and so was everything he made. His greatest triumph was in corn patties. He himself made the shells, mostly of corn, which he filled with great white delicate kernels of hulled corn, flavored with a delicious sauce. They would melt in one’s mouth”⁸⁶⁴ Neither Weis[s]’ employment by the AMP organizers nor Carr’s effusive praise for the chef’s corn patties are surprising. French food had grown in popularity during the first half of the nineteenth century, and during these decades, French culinary methods transformed American restaurant menus and cookbooks. After the middle of the century, upper class American families began to hire French chefs, and by the 1890s, chefs in the most renowned American restaurants, like Delmonico’s and the Waldorf, were either French or had been trained in French methods.⁸⁶⁵ By the time of the Paris Exposition, while black women had come to embody the culinary authenticity of “plantation cooking” and while white women like Sarah Tyson Rorer were enjoying considerable cultural authority as scientific cooks, male French chefs had come to occupy an even more esteemed culinary and cultural status. To convince “the prominent...and noble” to adopt corn as food in Europe, the AMP believed that their kitchen required a

⁸⁶¹ Ibid. 428

⁸⁶² Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 327.

⁸⁶³ Ibid., 397.

⁸⁶⁴ Carr, *My Day and Generation*, 429-430.

⁸⁶⁵ Andrew F. Smith, "French Influences on American Food," in *The Oxford Companion to American Food and Drink*, ed. Andrew F. Smith (New York: Oxford University Press, 2007).

head chef—French, no less—whose gender, race, and training would spur both wealthy demand and popular emulation over the Atlantic.

At first glance, it is surprising that even with Weis[s] and another of the “best chefs obtainable in the United States” on board, Carr and Snow refused to “give up good, genial, picturesque Aunt Jemima, with her plantation cooking” and that they hired another “colored cook[.]” to assist her.⁸⁶⁶ But on closer examination, it becomes clear that the corn kitchen organizers were creating a diorama of American corn cookery, past and present, and were using the juxtaposition of “Jemima” and Weis[s] to showcase corn’s unique capacity to serve the needs of Europe’s poor and the desires of its rich populations, alike. Thus on one hand, they hoped to benefit from the culinary authenticity embodied in the woman they referred to as “Aunt Jemima,” who, with her assistant, would make and serve corn griddle cakes, “which of course were small,” off “a thin flat polished steel griddle two and a half feet square, under which burned two dozen gas jets.”⁸⁶⁷ On the other, the AMP prepared to market the virtues of American Indian corn to Europeans in 1900 by way of French-American chefs who prepared “different corn soups; yellow and white corn meal mush; hominy grits; hominy in cream; hominy *au gratin*; all kinds of corn fritters, from yellow, white, and sweet corn; the different griddle cakes with maple syrup; frumentum pudding; maizena blanc mange; corn muffins; yellow and white corn bread; Boston brown bread; [and] popcorn.”⁸⁶⁸

The two groups of cooks worked side-by-side once the exhibit opened on May 17,th the date that Carr and Snow turned it over to Charles Richards Dodge, the Director of Agriculture for the U.S. Commission to Paris, and continued to do so through the end of October.⁸⁶⁹ “While Mr. Weis and his assistants were preparing these fine foods,” Carr recalled, “Aunt Jemima was making griddle cakes.”⁸⁷⁰ Indeed, during the kitchen’s tenure, “Aunt Jemima” is said to have started her days by preparing “a great quantity of

⁸⁶⁶ Crawford, “The Lesson of the Maize Kitchen at Paris,” 160; Carr, *My Day and Generation*, 429.

⁸⁶⁷ Carr, *My Day and Generation*, 431.

⁸⁶⁸ Crawford, “The Lesson of the Maize Kitchen at Paris,” 160-161.

⁸⁶⁹ Peck, “Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3,” 396-398; Carr, *My Day and Generation*, 433-434. On Dodge, see Crawford, “The Lesson of the Maize Kitchen at Paris,” 159-160. On the free cost, see Carr, *My Day and Generation*, 429.

⁸⁷⁰ Carr, *My Day and Generation*, 429-430.

batter” in anticipation of the visitors who would soon press into the small space.⁸⁷¹ Weis[s], meanwhile, regularly spent mornings before the exhibit opened teaching small audiences of French chefs and vegetarian clubs about the niceties of corn foods.⁸⁷² A photograph in Carr’s autobiography depicts as much, showing the corn kitchen’s human symbol of cheap plantation cookery dressed in a shawl at one end of the counter, standing between a black assistant or waiter on one side and what appears to be Weis[s] and his assistants on the other. Three white male dignitaries—quite possibly Carr, Snow, and Dodge—rest on chairs in front of their assembled staff.⁸⁷³ **[Image 4.10]**

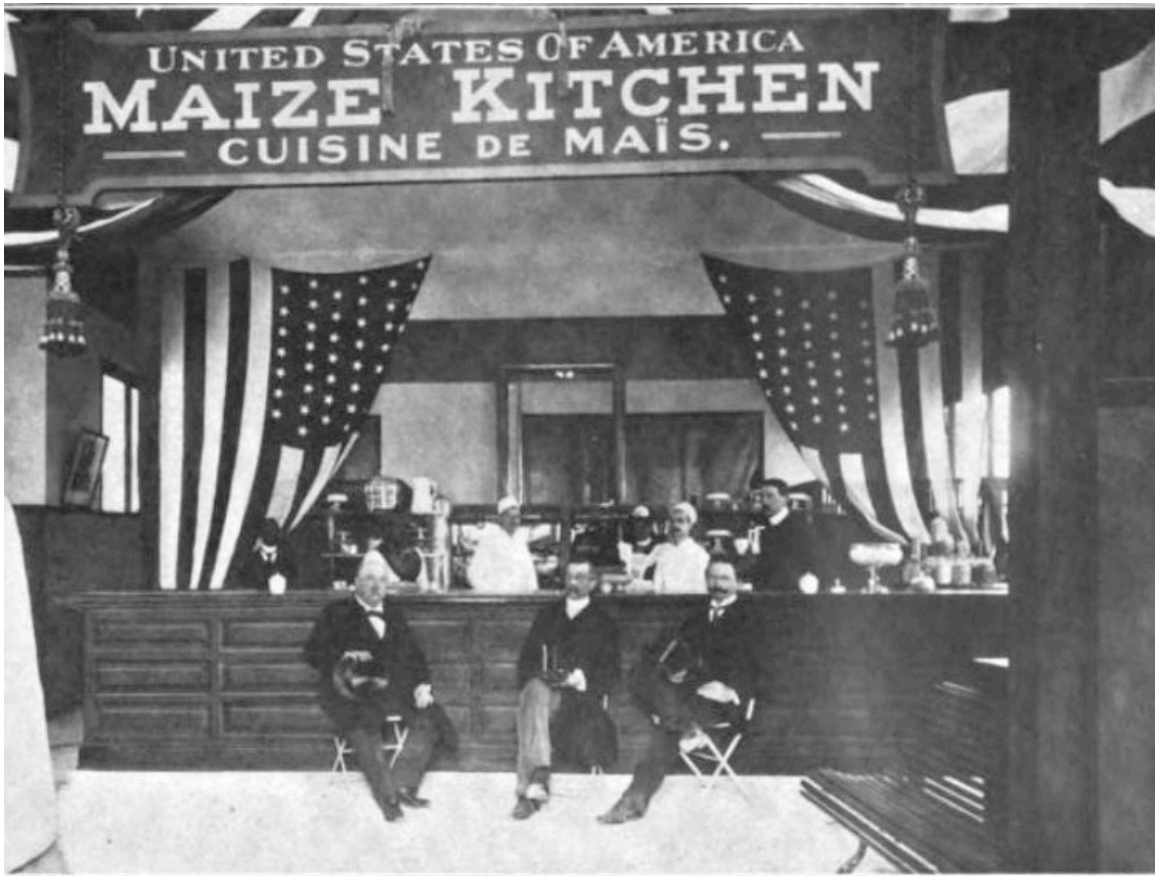


Image 4.10 / American Corn Kitchen at Paris Exposition, 1900.

Once the kitchen opened at eleven each morning, the kitchen’s black cooks, its French-American chefs, and its hired waiters worked simultaneously to feed the masses

⁸⁷¹ Ibid., 431.

⁸⁷² Ibid; Crawford, "The Lesson of the Maize Kitchen at Paris," 160.

⁸⁷³ For image of Aunt Jemima alongside others, see Carr, *My Day and Generation*, 424-425.

of people who came to sample American corn.⁸⁷⁴ While the exhibit attracted a fair share of Americans, especially those who had been abroad for some time, the corn kitchen drew “officials” and “notables” from France and other European countries as well as visitors from Turkey, Egypt, Japan, China, Russia, and Romania.⁸⁷⁵ In serving these eager crowds, “Jemima” is said to have been a paradigm of efficiency, both in serving and tallying the kitchen’s visitors.⁸⁷⁶ According to Carr, “she could have made these delicious cakes for a regiment.”⁸⁷⁷ If visitor tallies were at all accurate she appears to have needed the skills to produce corn cakes at regimental capacity. By one account, the corn kitchen served between one and five hundred people a day.⁸⁷⁸ Peck’s report to the U.S. Senate, however, asserted that the exhibit had served “114,000 guests” throughout its run, including 2,356 on its busiest day. It was so popular, in fact, that “Two guards were required to regulate the entrance and exit of visitors during the latter months, and...on many days people were turned away who could not be served.”⁸⁷⁹ Much of what made the kitchen as notable as it was lay in the simultaneous performances by “Jemima” and Weis[s]. It was their self-presentation as food preparers—albeit with contrasting genders and phenotypes—that compensated for counter’s otherwise drab space. To her employers and probably many visitors, “Jemima’s” gender, her blackness, the shawl she wore about her shoulders, and the minstrel moniker she inherited collectively signified her ability to reproduce authentic plantation cooking. Weis[s]’s lighter skin, his gender, and the chef’s whites he donned, by contrast, showed him as capable of instructing the leading chefs of his country of birth and tickling the palates of his refined countrymen.

But despite slaves’ and freedmens’ rich legacies of culinary mixing, borrowing, and creative substitution, the corn kitchen promoters had essentialized the genre of

⁸⁷⁴ Ibid., 431. On hired waiters, see Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 325-327.

⁸⁷⁵ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 396; Carr, *My Day and Generation*, 429-432; Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 1," 56; Crawford, "The Lesson of the Maize Kitchen at Paris," 160.

⁸⁷⁶ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 396.

⁸⁷⁷ Carr, *My Day and Generation*, 431.

⁸⁷⁸ Crawford, "The Lesson of the Maize Kitchen at Paris," 159.

⁸⁷⁹ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 396.

“plantation cooking” as consisting of griddle cakes and griddle cakes alone. The woman portraying “Jemima,” however, and for that matter, the black and mixed-race women who undertook to cook for their families during and after slavery had inherited a far larger culinary repertoire. In 1819, for example, Benjamin Henry Latrobe described one Louisiana marketplace, to which people of all hues contributed, as overflowing with “innumerable wild ducks, oysters, poultry of all kinds, fish, bananas, piles of oranges, sugar cane, sweet and Irish potatoes, corn in the Ear and husked, apples, carrots and all other sorts of roots, [and] eggs.”⁸⁸⁰ Likewise, Sam Hilliard and Eugene Genovese have shown that slaves ate far more than corn and salt pork; they cultivated greens and herbs in garden plots, fished, raised chickens and hogs, and snared possum, squirrels and raccoons in order to supplement their diets. And as they did so, they concocted dishes as varied as coosh-coosh, squirrel pie, pot-likker, Hoppin John, poke-salad, and persimmon bread.⁸⁸¹

It would seem, therefore, that “Aunt Jemima’s” performance in the corn kitchen, however many accolades her griddle cakes received, however delicious they may have been, was not unlike the minstrel show genre from which her namesake came. Described by her employers as “picturesque,” she metaphorically and literally functioned as a backdrop to the French-American chefs and to the narrative of progress that the U.S. exhibit hoped to show the world. Ample evidence of the nation’s industrialization, after all, filled the two floors of agricultural implements lying below the corn kitchen.⁸⁸² Such signs of national progress also appeared in the display case that Dodge himself had constructed and filled with nearly four-dozen “samples of the more important products and by-products of Indian corn.”⁸⁸³ Next to “Jemima,” meanwhile, Weis and his assistants used donated brand-name corn products like Frumentum and Maizena to prepare the modern foods they served to visitors at the corn kitchen’s counter.

The real life of the woman at the center of their narrative, however, suggests a more complicated story than a woman who simply accepted an assigned role to flip corn

⁸⁸⁰ Daniel H. Usner, *Indians, Settlers & Slaves in a Frontier Exchange Economy: The Lower Mississippi Valley before 1783* (Chapel Hill: The University of North Carolina Press, 1992), 217.

⁸⁸¹ Hilliard, *Hog Meat and Hoecake*; Genovese, *Roll, Jordan, Roll: The World the Slaves Made*, 540-550.

⁸⁸² See for instance Commissioner Peck’s description of the McCormick Harvesting Machine Company’s “retrospective exhibit of harvesting machinery” in the agricultural annex, in Peck, “Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3,” 483-485.

⁸⁸³ Crawford, “The Lesson of the Maize Kitchen at Paris,” 162.

cakes for Parisian crowds. Her name, as Commissioner Peck's salary records reveal, was not "Aunt Jemima" at all but Mrs. Agnes Moody.⁸⁸⁴ Born a slave in Hagerstown, Maryland in 1840 or 1842, Moody fled to Canada as a ten year old, where she learned to read and write. While there, she married Benjamin Moody, took his surname, and around 1865, they had a son whom they named James. After the Civil War, she returned to the United States and took up residence in Chicago, where she joined the long-active African American church, Quinn Chapel. She maintained membership there for at least three and a half decades, and during this time, became active in "almost all the organizations of colored women in the country." According to the *Chicago Daily Tribune*, she was also "one of the best read women of her race in the country."⁸⁸⁵ In 1893, by then in her fifth decade, she spoke at an event honoring Frederick Douglass, and during the next few years, she welcomed dignitaries and served as a civic and church leader.⁸⁸⁶ **[Image 4.11]**

During her years in Chicago, moreover, she cultivated a formidable reputation for her cookery. The *New York Times* suggested that she had "cooked corn cakes in the corn exhibits at expositions in America and Europe" since 1875, and whether or not that was true, the *Tribune* called her "an artist" along "that line of endeavor."⁸⁸⁷ In any event, the Census for 1900 lists her occupation as "cook."⁸⁸⁸ Though such a record seems incongruous with the kind of uplift she worked toward within Chicago's African-

⁸⁸⁴ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 327.

⁸⁸⁵ The best (albeit short) biography on her appears in "Who's Who and What's What," *Chicago Daily Tribune*, April 23, 1900, 6. The Federal Censuses (for Cook County, Illinois) for 1870, 1880, and 1900 are also instructive. Note that while she appears as "Agness" Moody, wife of "Benj[amin]" in the 1880 census, she is "Agnes" Moody in the 1870 and 1900 censuses. That of 1890 has largely been lost. For her census records, see the Cook County (3-wd), Illinois Census of 1870: Series M593, Roll 199, Page 339; Cook County (1 & 2 & 3 & 4-wd), Illinois Census of 1880: Series T9, Roll 185, Page 310; and Cook County (4-wd), Illinois Census of 1900: Series T623, Roll 247, Page 281, accessed via HeritageQuestOnline, September 28, 2010.

⁸⁸⁶ James D. Corrothers, *In Spite of the Handicap, an Autobiography* (New York: George H. Doran Company, 1916), 130. Her contributions included leading a "citizens' committee" to welcome Charles Winter Wood (*Chicago Daily Tribune*, June 25, 1895, 10); being elected Prelate of the Grand Household of Ruth of the women's branch of the Grand United Order of Oddfellows in America (*Chicago Daily Tribune*, August 30, 1898, 8); being installed as Royal Grand Matron in the Order of the Eastern Star, (*Chicago Daily Tribune*, August 13, 1899, 14); becoming a member of the woman's auxiliary of a new Institutional Church (*Chicago Daily Tribune*, July 9, 1900, 10; given this date, however, she may have done so in absentia); and becoming a leader in West Chicago's kindergarten movement (*Kindergarten Review*, Vol. 12, Jan 1902, 308).

⁸⁸⁷ "Agnes Moody Back from Paris," *New York Times*, November 19, 1900, 2; "Who's Who and What's What," 6.

⁸⁸⁸ See Federal Census for 1900, for Cook County, Illinois: Series T623, Roll 247, Page 281, accessed via HeritageQuestOnline, September 28, 2010.

American community, the experiences she may have had—and taken pride in—while preparing food for large groups of people may well have led to the moment where she was “discovered” and hired to be a centerpiece of the American Corn Kitchen.⁸⁸⁹



Mrs. Agnes Moody.

Image 4.11 / Mrs. Agnes Moody, 1900.

Though the venue in which Peck, Snow, or Carr first encountered Mrs. Moody is unclear, she departed for Paris in early March, around the same time as chef Weis[s].⁸⁹⁰ The U.S. Commission to the Paris Exposition initially paid her \$480 for six months of work, far less than Weiss’ salary. Even so, this came to the not inconsequential amount of \$80 per month.⁸⁹¹ Throughout her time overseas, the *Tribune* had nothing but praise for her efforts at “tickling the dainty palates of exposition visitors with hot corn bread, fried mush, corn pudding, and other delicacies,” educating “cookers” around the world, and thereby “giving American corn a great boom in Europe.”⁸⁹² While the *Tribune*’s wordy garlands suggested that her repertoire was larger than that which any of the organizers later recorded, the *Tribune*’s praise was in synch with her employers’

⁸⁸⁹ "Daily Life at the Exposition," *Chicago Daily Tribune*, June 17, 1900, 9.

⁸⁹⁰ "Who's Who and What's What," 6.

⁸⁹¹ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 327.

⁸⁹² "Who's Who and What's What," 6. "Daily Life at the Exposition," 9.

appreciation for her abilities. At the beginning of October, having completed her initial six-month contract, she signed on to work for six more weeks for no less than an additional \$720 in wages. When her earnings are totaled, therefore, we see that she earned as much as chef Weis[s] while the two were abroad.⁸⁹³ At the end of the month, moreover, the corn kitchen organizers gave her “a reception” in honor of the “corn griddle cakes” that “had made her famous” in Paris.⁸⁹⁴ Mrs. Moody returned to Chicago in the middle of November, 1900 and lectured about her experiences abroad to members of Chicago’s African American community at Quinn Chapel the following month.⁸⁹⁵ When she passed away in 1903, the *Los Angeles Times* and the *New York Times* ran obituaries in her honor.

How, then, are we to reconcile Mrs. Moody’s own rationale for sailing across the Atlantic and performing as the nation’s Aunt Jemima with the U.S. Commission’s decisions to place Moody at the symbolic center of their exhibit, to limit her to a producer of corn cakes, to juxtapose her supposed antimodernism with Weis[s]’s use of modern brand name products even while rendering her pay equivalent to that of the French chef, and to fete her at the end of the Exposition? It may very well be the case that Moody’s griddle-cake productions for the benefit of the American Maize Propaganda, the U.S. Commission to the Paris Exposition, and American farmers involved the same ritual of putting on “the mask” that other scholars have attributed to black American performers. As W.T. Lhamon has pointed, “blackface performance,” “slippery” as it was both “in its uses and effects,” could “work also and simultaneously against racial stereotyping.”⁸⁹⁶ Indeed, he nods to the African American poet Paul Laurence Dunbar, who, four years before Mrs. Moody traveled to Paris, had insisted that the face African Americans showed in public was not the sum total of who they were: “We wear the mask that grins and lies,” he insisted. “Why should the world be over-wise, / In counting all our tears and sighs? / Let them only see us, while / We wear the mask.”⁸⁹⁷

⁸⁹³ Weiss earned \$1,200, as well, but for a slightly shorter stint. See Peck, “Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3,” 325-327.

⁸⁹⁴ *Ibid.*, 396.

⁸⁹⁵ “Agnes Moody Back from Paris,” 2. “Announcements,” *Chicago Daily Tribune*, December 9, 1900, 7.

⁸⁹⁶ Lhamon, *Raising Cain: Blackface Performance from Jim Crow to Hip Hop*, 6.

⁸⁹⁷ Paul Laurence Dunbar, *Lyrics of Lowly Life* (New York: Dodd, Mead, and Co., 1898), 167.

How might Mrs. Moody have worn a mask in Paris, and why? Though she had married her husband during the 1860s and at least through 1880 kept house for their family as he worked as a day laborer and a porter, both Benjamin and their son James had passed away by 1900. A widow by the time she was hired to portray “Jemima” in Paris, she seems to have made ends meet by living as a “sister-in-law” to and with George and Sarah Reid, along with another sister-in-law named Nancy Smith. Given George’s status as head of the household, it seems possible that Sarah and Nancy, who also came to Chicago by way of Maryland, were Agnes Moody’s blood relations; they could even have been her sisters. Perhaps to help the Reids, who were both fifty years old, with the rent they paid for the home they shared with her on what appears to be Chicago’s Dearborn Street, Agnes Moody, who was then either fifty-eight or sixty, worked as a cook. Through that occupation—a position probably compelled by the death of the husband whose own labor had previously permitted her to remain at home—she would have been able to support herself and, one imagines, contribute to the larger group’s well-being.⁸⁹⁸ Thus while the organizers of the Paris corn kitchen relied on “Jemima’s” visage and labor to transform their space into a human (and consumable) spectacle—triangulating popular associations about gender, race and nationality for the benefit of American farmers—Mrs. Moody used her position behind the griddle at the Paris corn kitchen’s counter as an enormous financial boon.

But she wore the mask for more than remuneration: she utilized her time abroad as an opportunity to edify Chicago’s African American community. The lecture she gave at Quinn Chapel upon her return suggests that she performed as an expert corn cake maker to continue her work with race and gender uplift. Moreover, if we borrow from the recently uncovered history of one Ione Brown, born Ione Hopson—an African American woman who was hired to portray “Aunt Jemima” around the upper Midwest during the middle of the twentieth century—we might infer that Moody enjoyed the opportunity to act as a kind of “ambassador” for black women, to show Europeans and

⁸⁹⁸ In much the same way, both the forty-eight year old Nancy and her twenty-two year old daughter Marian worked as laundresses, though they appear to have struggled for regular work more than Mrs. Moody. Data gleaned from the Cook County (3-wd), Illinois Census of 1870: Series M593, Roll 199, Page 339; Cook County (1 & 2 & 3 & 4-wd), Illinois Census of 1880: Series T9, Roll 185, Page 310; and Cook County (4-wd), Illinois Census of 1900: Series T623, Roll 247, Page 281, accessed via HeritageQuestOnline, September 28, 2010.

Americans alike what black women did or did not actually do. Perhaps, like Ione Hopson/Brown, Moody also relished the opportunity to share her Christian faith.⁸⁹⁹ Indeed, if we follow Lhamon's reasoning, we might surmise that, like the "broad interracial refusal of middle-class channeling that working men and women of all hues mounted using the corrupt tools bequeathed them by the marketplaces and other locations where they could make spectacles of themselves," Agnes Moody also "took the racism" that prompted Carr, Snow, and Peck to juxtapose her corn cakes with chef Weis[s]'s modern corn cuisine—her shawl with his chef whites—"and raised it against" them.⁹⁰⁰

TO "SHOW THE WORLD THIS WEALTH OF PRODUCTION"

But if the Paris corn kitchen enabled one woman to use a griddle and shawl to uplift Chicago's black community at the turn of the century, what of its significance for the overproducing American farmers for whom it had been imagined? According to *Harper's Weekly*, the corn kitchen at the Paris Exposition successfully followed the work that Charles Murphy had undertaken a decade earlier. "[I]t is not impossible," the magazine argued, "that thousands of new corn-eating recruits were made by this exhibition." Continuing to promote the grain's virtues, it added, ought to stimulate demand among poor Europeans.⁹⁰¹ From another journalist's perspective, however, "a large amount of inquiry" among visitors did not a successful exhibition make; lack of access to cheap American corn remained a key obstacle to actually boosting American corn exports.⁹⁰² When Commissioner Peck released his final report on the Exposition of 1900 to the U.S. Senate, he prefaced his assessment of the corn kitchen's efficacy with his recognition that the nation had not yet reached its limits of corn production. Turning to USDA statistics to underscore the importance of the exhibits over which he had presided, Peck observed that even with more than 83 million acres of corn under cultivation, irrigating and fertilizing existing corn lands, using those acres with greater intensity, and cultivating currently "unoccupied areas" would easily double the nation's corn yield. Future "possibilities" for extending corn production, he added, "are simply

⁸⁹⁹ For NPR host Michele Norris's recent discovery of her grandmother's positive recollections of her experiences as "Aunt Jemima," see Norris, *The Grace of Silence: A Memoir*.

⁹⁰⁰ Lhamon, *Raising Cain: Blackface Performance from Jim Crow to Hip Hop*, 6.

⁹⁰¹ George E. Walsh, "American Corn," *Harper's Weekly*, January 12 1901, 43.

⁹⁰² Crawford, "The Lesson of the Maize Kitchen at Paris," 160.

enormous.”⁹⁰³ If the nation’s possibilities for corn production were anywhere as terrific as he and the USDA believed that they might be, he implied, the situation was dire: the U.S. still needed to find new outlets to consume what might become extraordinary excesses of corn. It was in this vein, therefore, that he ultimately defended the corn kitchen over which the AMP, the U.S. Commission, and Mrs. Moody and Mr. Weiss had presided. While Peck could not report, with real precision, what influence the corn kitchen held “as a trade maker for maize products in Europe,” he argued that it enjoyed “a grand success” in “draw[ing] the crowds” and acting “as a simple advertisement of the fact that American corn products are palatable, wholesome, and cheap.”⁹⁰⁴ It fit, therefore, into the main goal of the nation’s agricultural exhibit: to “show the world this wealth of production.”⁹⁰⁵

As levels of corn production grew and occasionally ebbed during the years that followed, memories of the nation’s corn kitchens and agricultural leaders’ beliefs in the utility of women to market the crop as human food lasted for some time. Three years out, Herbert Myrick, the editor who, in 1898, had pressed for the Paris corn kitchen of 1900, surmised that the nation’s “foreign trade in corn...is in a most healthy condition” and credited recent growth in that area to the AMP and its display at the Paris exposition.⁹⁰⁶ In 1907, a corn kitchen “signalizing the utility of the grain” (and, among other features, a twelve by twenty-five foot painting of “Minnehaha in the cornfield...framed artistically in corn”) accompanied the first ever National Corn Show, a two week pageant that Snow, Carr, Peck, and agricultural leaders from around the nation convened in Chicago for the purposes of scientifically increasing the country’s corn production, for bridging the perceived differences between country and city folk, and for expanding the nation’s corn trade.⁹⁰⁷ **[Images 4.12-4.13]**

⁹⁰³ Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 3," 334-335.

⁹⁰⁴ Ibid., 395.

⁹⁰⁵ Ibid., 334.

⁹⁰⁶ Myrick, *The Book of Corn*, 239-240.

⁹⁰⁷ On the 1907 corn kitchen at the Chicago convention, see "Corn to Be King and Whole Show," *Chicago Daily Tribune*, February 21, 1907; "Whiffs of Farm for the Homesick," *Chicago Daily Tribune*, August 18, 1907, 8. On the Minnehaha painting (and oddly enough, the fact that “the charming daughter of one of the officers of the Association of Commerce” posed for the infamous image) as well as mention of participation by Snow and Carr, see "Corn Is Crowned King of 14 States," *Chicago Daily Tribune*, October 6, 1907, 1. On Peck’s contribution, see "Corn Show Plans for Chicago Day," *Chicago Daily Tribune*,



Image 4.12 / Cover, *National Corn Exposition*, Chicago, October 5 to 19, 1907.



Image 4.13 / The corn kitchen, 1907.

To lead that corn kitchen's demonstrations of the plant's virtues, convention organizers turned to Elizabeth O. Hiller, the principal of the Chicago Domestic Science Training School, the author of a new cookbook entitled *The Corn Cook Book*, and the recent creator of a "most attractively told" USDA publication entitled "Farmers' Bulletin No. 298," which related "[t]he story of the origin of corn, its cultivation, milling commercial and food value."⁹⁰⁸ Eager to showcase corn to middle class housewives and to individuals within the laboring classes alike, Hiller gave demonstrations three times a day with her "staff of assistant cooks and a negro page" on "every conceivable method of cooking and serving corn" as well as meat from corn-fed animals. She began, unsurprisingly, as Rorer had done: with "the simplest dishes—the sort that the Indians

October 9, 1907, 6. Space constraints prohibit a further discussion of this first National Corn Exposition, but the program (depicted in Image 4.12) exists in Martin Mosher's papers in Iowa State's Special Collections and contains a wealth of information.

⁹⁰⁸ For her comments on the USDA's bulletin and her cook book, see Elizabeth O. Hiller, *The Corn Cook Book* (Chicago: The Rogerson Press, 1907), 6.

made when the first colonists settled on these shores...simply a little cornmeal mixed with salt,” and worked her way up to more advanced recipes.⁹⁰⁹

The corn kitchen craze that Hiller inherited—as well as the genre’s proverbial reliance on white women as culinary authorities and on women of color as authentic corn informants—lasted in popular memory at least through World War I. In 1917, private citizens, USDA representatives, and leaders of the newly created U.S. Food Administration invoked Charles Murphy’s crusades and the AMP’s Paris exhibit to promote wartime campaigns which encouraged U.S. citizens to “Eat more corn” and save wheat, meat and sugar for American troops and allies. That year, for instance, Jeannette Young Norton revised Murphy’s 1889 address to French millers and published his appropriation of Mary Scott’s older text as *American Indian Corn (Maize) Cheap, Wholesome, and Nutritious Food 150 Ways to Prepare and Cook It*.⁹¹⁰ Meanwhile, Carl Vrooman, the Secretary of the USDA, praised a series of articles by Mrs. Anna B. Scott, a “Cooking Expert and Food Economist” with Philadelphia’s *The North American*. Her clippings, entitled “Corn as a Weapon to Win the War,” he remarked, “really play a very important part in our war policy.”⁹¹¹ But even as such white women were able to assume the mantles of cultural authority when it came to disseminating information about the virtues of corn cookery, authenticity remained elusive. Vrooman’s private secretary, who was seeking to showcase corn as “palatable and wholesome” for USDA “newspaper articles and later a bulletin” and wanted to write “not in the bonedry bulletin style, but with the sort of appeal that will make the people of the country hungry for corn bread,” actively sought the culinary knowledge and authenticity of “colored cooks” from states

⁹⁰⁹ For description of Hiller’s plans to begin with simple Indian foods, see “Whiffs of Farm for the Homesick,” 8; “Corn Is Real Staff of Life,” *Chicago Daily Tribune*, October 2, 1907, 12. For all known evidence of Hiller’s activities at the 1907 National Corn Show, see “Corn Is Real Staff of Life.”; “Corn Is Crowned King of 14 States.”; “Extols Hoecake at Big Corn Fair,” *Chicago Daily Tribune*, October 8, 1907; “Many Taste Corn-Fed Bird,” *Chicago Daily Tribune*, October 12, 1907; “Quit Pit for Corn Show,” *Chicago Daily Tribune*, October 15, 1907, 8. For her comments on the USDA’s bulletin, see Hiller, *The Corn Cook Book*, 6. See also organizers’ description of her “Model Corn Kitchen” in the Program for the National Corn Exposition, in *National Corn Exposition, Chicago, October 5 to 19, 1907*, 63; Martin L. Mosher Papers RS 16/03/55 (MLMP); Box 7, Folder 17: Corn Shows, 1903, 1907-8, 1910, 1913, 1915-16, 1922-23, 1955; Iowa State Special Collections (IAST), Ames, IA.

⁹¹⁰ Charles J. Murphy and Jeannette Young Norton, *American Indian Corn (Maize) Cheap, Wholesome, and Nutritious Food 150 Ways to Prepare and Cook It* (New York: G.P. Putnam’s Sons, 1917).

⁹¹¹ Carl Vrooman, Secretary, to E.A. Van Valkenb[er]g, June 9, 1917; GC, Grain – Corn, 1917, box 396; RG 16, NACP.

like Tennessee and Kentucky.⁹¹² In the pages of *Good Housekeeping*, moreover, the U.S. Food Administration recalled the service of “cooks of the South” who, thanks to Murphy’s prescience, had taught Europeans to consume corn at “the Paris exposition.”⁹¹³

Political pressures and financial incentives to expand corn production during the War brought disastrous environmental and economic consequences to Corn Belt farmers thereafter. Though prices for corn and hogs had surged, farmers took on far too much debt and cultivated land that should not have been ploughed. Although alluding to the environmental devastation caused by the nation’s precipitous expansion of corn (and wheat) production during World War I or to farmers’ economic struggles thereafter might stretch this chapter’s focus on four decades of corn kitchens (and their organizers’ reliance on authoritative white women and authentic women of color) beyond a reasonable scope, corn-as-human-food promotions during 1917 and 1918 showcase the pervasiveness of elites’ beliefs—dating back at least to 1877—that promoting grain exports instead of quelling production or instituting other reforms remained the best means for ameliorating farmers’ woes. Moreover, such twentieth century promotions of corn as human food—arising as they did when university-trained agriculturalists convened with progressive farmers and boards of trade, and within the wartime records of the USDA and the U.S. Food Administration—also remind us that the cooperation between public and private corn interests which the AMP had proposed towards the end of the nineteenth century evolved in profound ways during the first decades of the twentieth.

⁹¹² Dixon Merritt, Assistant to the Secretary, to Mrs. Joel B. Fort, Richard Yancey, J. M. Pendleton, Lew Jones, Dr. Bruce R. Payne, & Miss Mabel Ward, September 11, 1917; GC, box 370, Breads, Biscuits, Cake, 1917; RG 16; NACP.

⁹¹³ Wiley, “Corn to the Rescue,” 55.

CHAPTER FIVE

King Corn's Products And the Creation of Industrial Foodways

*“Go to it, gentlemen of the corn belt, farmers, bankers, politicians,
and every one else interested, and broaden the use of corn.
You need not fear that you will ever be able to exhaust its uses.
Providence never meant this grain just to fatten hogs.”⁹¹⁴
-The Wall Street Journal, January 7, 1926*

In August of 1930, honey producer Ernest R. Root, President of the A.I. Root Company, sent a pair of impassioned letters to President Hoover and to Senator Simeon D. Fess, the Chairman of the Republican National Committee. Root's concerns revolved around a proposal that, if accepted by the Secretary of Agriculture, would redefine the USDA's standards for "sugar." In essence, the altered designation would permit food manufacturers to sweeten and thicken new kinds of products with sugar derived from corn without noting such use on their labels. Referencing a series of turn-of-the-century debates around the glucose that manufacturers had derived from cornstarch, Root complained to President Hoover that "this old arch enemy of pure food" was again trying to "masquerade under the good name cane or beet sugar."⁹¹⁵ Allowing manufacturers to use unlabeled corn sugar in their products, he believed, "would...make it possible for wholesale food adulteration and bring back the disgraceful conditions that existed prior to 1906," the year that Congress passed the Pure Food and Drugs Act. Not only might the expanded use of corn sugar damage the honey industry, he cautioned, but "the housewife...would be defrauded and the stomachs of 125,000,000 people be cheated." Therefore, he asked Hoover "[i]n the name of 800,000 beekeepers, in the name of all the pure food divisions of all the states, [and] in the name of the housewife" to withhold

⁹¹⁴ "Gold in Corn," *Wall Street Journal*, January 7, 1926, 1.

⁹¹⁵ Ernest R. Root to President Hoover, August 1930; GC; 1555, Misc re corn sugar (Mr. Meador's files); RG 16; NACP.

support for an act that “previous secretaries of agriculture have denied and Congress has repeatedly refused to pass.”⁹¹⁶

That same summer, Mabel C. Satterthwaite wrote to Albert M. Hyde, President Hoover’s Secretary of Agriculture, from her family’s farm in Salem, Ohio. In many ways, she could have been one of the millions of housewives for whom Root believed he spoke. “As the mother of a growing family,” she wrote, “I am as desirous as anyone that the foods on the market should be pure and wholesome.” However, she clarified, she was not simply a consumer, because her family was intimately connected to the production of food. “As the wife of a corn belt farmer,” she explained, “I am interested in an increased demand for corn. If corn sugar were allowed its rightful place as a competitor of cane and beet sugar, millions of bushels of corn would be used annually in its manufacture.”⁹¹⁷ La Vere Hughs Moats, another Corn Belt resident, was more direct with Secretary Hyde. Addressing him from her home in Maquon, Illinois, she explained, “In every way in which I have had occasion to use [corn sugar], or have used products made from its use, I have found it very good and my family have uttered no complaints!” Having asserted her expertise, Hughs Moats pressed for answers: “Why this restriction on its free use in food manufacture?? Do you not think it a very unjust discrimination? We, here in the corn belt,” she concluded, “have been ‘raising more corn to feed more hogs’ for a long time, and we are getting pretty hungry doing it.”⁹¹⁸

What do these protests tell us about transformations to the nation’s foodways between the last decades of the nineteenth century and the first decades of the twentieth, or the new ways in which the federal government was shaping market development? And what do they tell us about the political and economic circumstances that would position corn as the nation’s Kingliest crop during the twentieth century? This chapter uses a series of access points leading up to the corn sugar question of 1930 to explore how and why, during crucial years of industrialization, farmers, manufacturers, consumers, and regulatory branches of government grappled with the entry of refined

⁹¹⁶ Ernest R. Root to President Hoover, August 1930; GC, 1555, Sugar, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP.

⁹¹⁷ Mabel C. Satterthwaite to Arthur M. Hyde, May 31, 1930; GC, 1557, Sugar (for corn sugar) Jan-May 1930; RG 16; NACP.

⁹¹⁸ La Vere Hughs Moats to Arthur M. Hyde, July 12, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16; NACP.

corn products into the nation's foodways.⁹¹⁹ Each of these groups engaged with this question because nothing less was at stake than the twentieth century's relationships among food producers' rights to unfettered markets, consumers' rights to pure food, and farmers' beliefs that they deserved fair prices for their products.

As previous chapters have shown, conditions during and following the Civil War prompted Corn Belt farmers to put more acres to the plow. In so doing, they produced greater quantities of crops, like corn, that they could feed on their farms or sell for cash or credit. Food manufacturers capitalized on the increasing tonnage of corn that farmers brought to market by developing technologies that could transform the crop into an expanding array of foodstuffs and consumer products. Thus although the origins of the corn refining industry lay in the 1840s, when Thomas Kingsford discovered how to extract starch from corn cheaply and effectively, postwar advances in converting that starch to sugary substances and in extracting other resources from the grain substantially increased the grain's utility.

The postwar growth in manufactured foods, however, of which corn refining was only a part, raised concerns among many American consumers. As debates about a Congressional proposal to tax corn-derived glucose in 1882 and the implications of the 1906 Pure Food and Drugs Act reveal, consumers were becoming increasingly suspicious of the ingredients in canned and processed foods. Organized clubwomen, in particular, worked very hard to lobby congressmen and educate the public in hopes of establishing Federal standards for food regulation.⁹²⁰ The Act's implementation in January of 1907 forced manufacturers to label foods in ways that the Federal government, reformers, and some food producers hoped would clarify products' contents to consumers. For corn

⁹¹⁹ This chapter uses foodways to refer to sets of practices spanning the production and consumption of food that have been shaped at a national level through various stakeholders' struggles over government policies and in particular socioeconomic contexts. The term is equally useful, however, in thinking through similar practices occupying other kinds of spaces, like those marked by regional, ethnic, or class differences. Vicki Ruiz observes that such foodways "signify sites of contestation and comfort" and can either "bring people together across cultures" or "serve as signifiers of otherness." Vicki Ruiz, "Citizen Restaurant: American Imaginaries, American Communities," *American Quarterly* 60, no. 1 (2008): 5-6. For other approaches to foodways, see Charles Camp, "Foodways in Everyday Life," *American Quarterly* 34, no. 3 ((1982): 279; Southern Foodways Alliance, "Sfa History," <http://www.southernfoodways.com/about/history.html>; Hasia Diner, *Hungering for America: Italian, Irish, and Jewish Foodways in the Age of Migration* (Cambridge: Harvard University Press, 2001); "Journal of Food and Foodways: Aims and Scope," <http://www.tandf.co.uk/journals/titles/07409710.asp>

⁹²⁰ Lorine Swainston Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914* (Jefferson, North Carolina: McFarland & Company, Inc., 1999), 110, 134, 147.

refiners, this meant that as they separated corn into separate physical and chemical components and introduced the novel products generated from those substances to other businesses and to consumers, they also introduced the new creations to government regulation. And because many of the new commodities were designed to replace existing products or ingredients at lower prices, the transparency required by the Pure Food and Drugs Act prompted manufacturers to seek more encompassing definitions for the classes of foods they wished to sell.⁹²¹ Their efforts at influencing Federal regulations became all the more pressing for Corn Belt farmers in the wake of transformations in farm productivity and growing economic instability. Following World War I, especially, Corn Belt families like Hughs Moats' faced glutted markets, environmental damage from over-extended acreage, and farm foreclosures. Thus certain stakeholders' desires to ensure that the nation's foods were safe to consume intersected with others' quests to find new outlets for overproduced, undervalued farm products. In this way, refined corn products like glucose and dextrose thus became some of the most hotly contested foodstuffs during the first decades of the twentieth century.

Beginning with cornstarch and early questions about glucose taxation, this chapter highlights the interplay among discourses about the nature and labeling of new refined corn products, specific legislative interventions, and material changes in the foods consumers ate. And as it moves to refiners' attempts to expand Americans' consumption of corn syrup in the wake of the Pure Food and Drugs Act of 1906 and the influence of post-war surpluses, economic depression, and Prohibition-era politics on manufacturer-farmer coalitions' attempts to (re)define corn sugar as sugar between 1923 and 1930, it extends previous chapters' explorations of the mutually constitutive interplay among discourse, market making, and environmental change. The creation and legal inclusion of refined corn products in manufactured foods, it insists—the basis on which corn's Kingliness rests today—was hardly an inevitable outcome.

⁹²¹ For scholarship on the passage of the Act, see Harvey W. Wiley, *The History of a Crime against the Food Law: The Amazing Story of the National Food and Drugs Law Intended to Protect the Health of the People Perverted to Protect Adulteration of Foods and Drugs* (Washington, D.C.: Harvey W. Wiley, 1929); Jr. Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food* (Chicago: University of Chicago Press, 1958); Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914*. For a recent overview of food adulteration in general, a study that also encompasses the passage of the 1906 Act, see Bee Wilson, *Swindled: The Dark History of Food Fraud, from Poisoned Candy to Counterfeit Coffee* (Princeton: Princeton University Press, 2008).



Image 5.1 / “Oswego Corn Starch for the Table Oswego Silver Gloss for the Laundry,” 1876.

As chapter one explains, starch was the first industrial product to be extracted from corn. The most important producer, “T. Kingsford & Son,” established its first factory during the 1840s. In 1848, the company moved to Oswego, New York, and by 1865, their heavily advertised cornstarch for laundry and kitchen use was commanding premium prices and inspiring many imitators.⁹²² **[Image 5.1]** As a cheap but high-quality replacement for other commonly used starches, including wheat and arrowroot, cornstarch contained myriad possibilities for dressing citizens and for putting affordable luxuries on the table in an increasingly image-oriented capitalist economy. Unlike other “manufactured mysteries” like lard, however, users adopted this new, refined corn product without spurring regulatory controversy or skepticism from domestic advisors.⁹²³

⁹²² Peckham, “Economics and Invention: A Technological History of the Corn Refining Industry of the United States,” 153-163.

⁹²³ Though this is beyond the immediate scope of the project, millers were charged with adulterating wheat flour with cornstarch during the late nineteenth century. Public objections to the mixture, sold as “fluorine,” prompted the federal government to tax mixed flours in the late 1890s. This was revisited in

For our purposes, it matters inasmuch as the starch that Kingsford pioneered became a linchpin in the process that eventually produced corn sugar.

Americans' taste for sweetness expanded during the same decades encompassing the nation's dramatic growth in cornstarch production and consumption. Between the 1820s and the 1920s, per capita sugar consumption grew from ten to 100 pounds.⁹²⁴ And as consumer demands grew, new needs prompted government agencies, agriculturalists, and industrialists to expand their searches for sugar sources.⁹²⁵ In the United States, the first experiments on the conversion of potato starch to syrup took place in 1831 by Samuel Guthrie, a New York physician.⁹²⁶ While this netted him glucose syrup, Guthrie's experiments did not create a product that crystallized when dried. With apparent failure on the potato starch-sugar front, agriculturalists and the government turned, for a short time during the early 1840s, to the corn plant as a potential sugar supply. But unlike the starch Kingsford and others were learning to unlock from corn kernels, initial research on the production of corn sweeteners sought to treat the plant's stalks in much the same manner as sugar cane: that is, by expelling and refining the juices

1916. For discussions of fluorine and mixed flour, see United States Congress, "To Repeal the Mixed-Flour Law, Hearing before the Committee on Ways and Means," (Government Printing Office, 1916).

⁹²⁴ Arthur Evans, "Sweeten up U.S. With Corn Sugar Is Farmer' Plea," *Chicago Daily Tribune*, January 2, 1926. Jay Chapin of the ACPM offered a more nuanced statement in 1930. He traced the growth of sugar consumption as nine pounds per capita in 1822, eighteen in 1845, sixty one in 1899, eighty in 1916, and 104 in 1929. See Chapin, "Present and Future Status of Corn Sugar in Food Products, Talk Given by Jay Chapin, Sect. Of Associated Corn Products Manufacturers, at the Convention of the Association of Dairy, Food & Drug Officials of the United States, New Orleans, November 13, 1930," enclosed in Jay Chapin to Mr. Meador, December 2, 1930; GC, 1557, Sugar (For Corn Sugar) (Mr. Meador's files); RG 16; NACP.

⁹²⁵ For a remarkable study on how sugar became endowed with gendered cultural meanings in the nineteenth century United States, see Wendy A. Woloson, *Refined Tastes: Sugar, Confectionery, and Consumers in Nineteenth-Century America* (Baltimore: The Johns Hopkins University Press, 2002). For a comparative assessment of the creation of British demands for sweetness, see Mintz, *Sweetness and Power: The Place of Sugar in Modern History*.

⁹²⁶ Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 176. This process is known as hydrolysis. To form polysaccharides such as starch, glucose monomers are enzymatically joined through condensation reactions resulting in the loss of water and the formation of a covalent glycosidic bond. Cooking the starches in an acid (hydrolysis) reverses this process, such that water breaking apart the glycosidic bonds produces syrupy glucose. Guthrie was not the first to discover this, however. In 1811, at the height of supply shortages in continental Europe, G. S. Constantine Kirchoff, a German chemist working in St. Petersburg in search of a substitute for gum arabic, discovered that cooking wheat or potato starch in a solution of sulphuric acid, filtering the resulting syrup through charcoal, and neutralizing it with chalk produced a solution, which, after drying, yielded sweet crystals. Curiously, the chemist's methods do not appear to have crossed the Atlantic for another two decades. For more on the Napoleonic war's influence in the creation of syrup from starch and a discussion of hydrolysis, see Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 129-144. Special thanks to Dan Wahl for clarifying my understanding of the process.

to extract a syrup and thence a sugar.⁹²⁷ However, as with potato starch-sugar research, the practical and economic difficulties of producing corn stalk syrup and sugar on a large scale forced agriculturalists and industrialists to turn their attention elsewhere.

Meanwhile, northerners' increasing discomfort with their dependence on southern states' cane sugar drove new searches for sweeteners at mid-century. Starting in the 1850s, the Federal government introduced imported Asian sorghum seeds to western American agriculturalists in hopes that the sorghum canes might supply sugar and syrup in sufficient quantities to match what southern states had theretofore provided. Sometime after 1855 in Jefferson County, Indiana, Harvey Wiley's father received samples of sorghum seeds from his congressman. Young Wiley, who would later become the USDA's Chief Chemist, write about corn's virtues alongside Charles Murphy, and be known as the father of the 1906 Pure Food and Drugs Act, personally took charge of cultivating the novel plant at the edge of his family's garden. **[Image 5.2]** The Wiley clan came to rely upon their sorghum molasses to supplement their supplies of sugar and maple syrup, especially after the Civil War cut off the sugar and molasses they had formerly purchased from New Orleans.⁹²⁸ Their story was no anomaly. The success of government sorghum dissemination during these years, Wiley later reflected, "rendered further investigations in the manufacture of corn sugar and corn syrup unnecessary."⁹²⁹

In light of disrupted sugar supplies during the Civil War and Reconstruction, the U.S. government—along with industrialists, scientists, and agriculturalists—turned to additional plants and to new geographic regions in hopes of satiating the nation's sweet

⁹²⁷ In 1907, F.L. Dunlap, who joined Wiley at the USDA that year on the Board of Food and Drug Inspection, reported that "the earliest Government report" regarding "the manufacture of sugar (sucrose) and of a syrup from the stalks of corn" appeared in 1841. A series of reports by the Commissioner of Patents between 1842 and 1844 followed thereafter, each hopefully alluding to the possibilities of producing "corn stalk sugar" and "corn sugar." See F.L. Dunlap, "Brief on the Labeling of Corn Products" from the Board of Food & Drug Inspection to the Secretary of Agriculture, December, 1907; GC, 7, Corn Products, 1907-1908; RG 16; NACP. For additional citations, see Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 564.

⁹²⁸ Harvey W. Wiley, *Harvey W. Wiley: An Autobiography* (Indianapolis: The Bobbs-Merrill Company 1930), 18, 53-54.

⁹²⁹ Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 71; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP. Gail Hollander observes that Federal promotion of sorghum production "disgruntled" southern planters. Gail M. Hollander, *Raising Cane in the 'Glades: The Global Sugar Trade and the Transformation of Florida* (Chicago: University of Chicago Press, 2008), 35.

tooth. USDA experiments with sugar beets began as early as 1863.⁹³⁰ Growing consumer demand, meanwhile, prompted the government to open its doors to Hawaiian sugar in 1875.⁹³¹ And although the USDA sought to revitalize Louisiana cane production in 1877, by late 1878, its leaders decided that national sugar self-sufficiency required even broader geographic and plant research. But while sugar beets were a viable option, their cultivation required heavy manual labor. Many midwestern farmers, therefore, adopted it only with reluctance. Given these constraints, the agency turned again to the sorghum plant during the 1880s. But although sorghum functioned well enough in producing syrup or molasses, residual contaminants still made crystallizing the liquid into something resembling cane sugar impossible.⁹³²

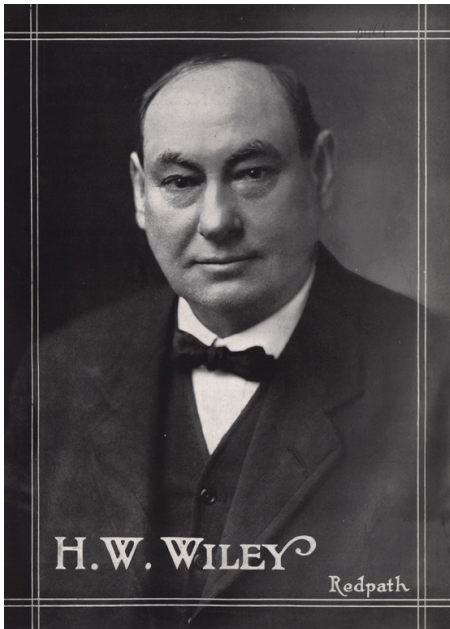


Image 5.2 / Harvey W. Wiley



Image 5.3 / The National Starch Manufacturing Company.

After the war, high prices for cane sugar and low prices for bushels of corn renewed industrial interest in converting the cornstarch to glucose syrup and to “grape sugar,” the name given to the sweet, somewhat crystallized product created from

⁹³⁰ Ibid., 36.

⁹³¹ F.B. McStocker, *Hawaiian Tariff and Digest of Laws Relating to the Administration of Customs* (Honolulu: Hawaiian Gazette Company, 1897), 28-34.

⁹³² The USDA never, however, pursued one plant to the exclusion of others, and the USDA entertained research in sorghum, sugar beet, and cane throughout the 1880s. For discussions of sweetener research, see John Alfred Heitmann, *The Modernization of the Louisiana Sugar Industry, 1830-1910* (Baton Rouge: Louisiana State University Press, 1987), 117-120; Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 32-66.

dehydrated syrup.⁹³³ Given that Germany continued to produce and export glucose derived from potato starch for much of the nineteenth century, it is not surprising that it was a German chemist in the U.S. who first divined a method for producing glucose from cornstarch at the end of the Civil War.⁹³⁴ Imitators followed and the production of glucose as a cheap sugar substitute grew rapidly between the late 1860s and the middle of the 1870s.⁹³⁵ **[Image 5.3]**

During these years, the promise of profits stimulated intense industrial efforts at transforming corn-derived glucose into a crystalline sweetener. In 1879, the Chicago-based Matthiessen & Wiechers Sugar Refining Company invited a German chemist named Arno Behr to move to the United States to extend his research on a crystallized form of starch sugar to the large scale wet-milling of American corn.⁹³⁶ In 1880, Behr—then working for the Matthiessen brothers’ Chicago Sugar Refining Company (CSRC)—discovered how to produce “a crystalline starch sugar, readily granulated and powdered, of very high purity and low dextrin content,” from glucose syrup by means of a centrifuge. This created a different product than the grape sugar that the glucose industry had theretofore produced by drying in “shallow, open pans.”⁹³⁷

Although Behr’s innovation enabled sugar manufacturers to envision selling expensive cane sugar mixed with cheap “anhydrous crystalline dextrose” to members of

⁹³³ Corn prices declined from 1871-1881 and from 1883-1889. Meanwhile, prices for cane sugar, which tripled during the Civil War, were still 50 percent more expensive in 1870 than in 1860. Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 224, 228. For a chart detailing the growth in patents issued in the Starch and Glucose industries, especially from 1880-1882, see Peckham, 186.

⁹³⁴ Ibid., 230. At the end of the Civil War, Frederick Goessling, a partner in a Buffalo sugar company, designed and registered six patents relative to the production of glucose and grape sugar. In 1865, the Union Sugar Company purchased his patents in hopes of commercially producing starch sugar from corn. Goessling, however, was the only person who understood its manufacture, and after his sudden death, the company halted production. See Peckham, 229, 273.

⁹³⁵ Ibid., 229-230. See also Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 146; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP. In Britain, Charles Dickens observed that this method was inefficient and expensive. Of the product, he wrote, "the chemist... cannot make much of it, and what he makes costs him a good deal more than its weight in gold; still he can really make sugar... at the cost of something like a hundred-pound note for the spoonful." Charles Dickens, "Sugar and Milk," *All the Year Round. A Weekly Journal*, August 2 1862, 497.

⁹³⁶ While in Europe, Behr had experimented with a process invented by an Italian chemist living in Austria-Hungary which involved steeping corn in acid and then agitating the kernels with a set of "revolving metal brushes" to separate corn germs from hulls and glutens. The Matthiessen brothers wanted Behr to adapt the Italian's methods to the larger scale American mills they ran, particularly for a large-capacity corn grinding plant they wished to open in Chicago. See Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 194-195, 204-205.

⁹³⁷ Ibid., 206-207.

the food trade, industrial users quickly discovered that the Behr product absorbed so much moisture that the entire mixture regularly formed “a solid crystalline mass that was useless for most purposes.”⁹³⁸ Failures to produce a satisfactory crystalline substitute for cane sugar from corn plants prompted aspiring corn refining corporations to focus on producing glucose syrups for the food trade.⁹³⁹ Thus while glucose syrup was a two million dollar industry in 1880, four years later, it produced an annual product worth nearly \$10,000,000 and consumed 40,000 bushels of corn per day in twenty-nine factories. And although nearly two and a half dozen factories were consolidated into twelve by 1890, the industry was consuming an additional 10,000 bushels per day and producing another \$500,000 in annual value.⁹⁴⁰

What, then, did all of this research and development mean for the nation’s corn producers, its consumers, and its nascent crop of regulators? In an 1881 article for *Popular Science Monthly*, Harvey Wiley (who was then continuing his youthful forays as a sorghum specialist at Purdue, and would, in 1883, join the USDA as chief chemist) celebrated the fact that “Corn, the new American king, now supplies us with bread, meat and sugar, which we need.”⁹⁴¹ Scientists’ successes in unlocking corn’s malleable properties, he intimated, were creating new opportunities for the nation’s farmers and industrialists, alike. He recognized, however, that new industrial opportunities for producing foodstuffs from corn were creating potential threats. After an 1878 trip to Berlin, he became particularly keen on studying the new kinds of sugars and syrups he had observed for sale in Indiana, and in light of growing industrial consumption of glucose syrup, especially in candy and beer-making, he started to conduct and publish research on glucose.⁹⁴² Though he never found the product, when properly made,

⁹³⁸ *Ibid.*, 207.

⁹³⁹ *Ibid.*, 186, 207-208.

⁹⁴⁰ Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 21-22; J. H. Kidder, "Some Food Substitutes and Their Adulterants," *Science* XV, no. 366 (1890).

⁹⁴¹ Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 22; Harvey W. Wiley, "Glucose and Grape-Sugar," *The Popular Science Monthly* XIX, no. 10 (1881); Wiley, *Harvey W. Wiley: An Autobiography*, 150.

⁹⁴² On Indiana, see Wiley, *Harvey W. Wiley: An Autobiography*, 137-139, 150-151; Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 21-22. His interests in glucose were such that in 1881, Wiley spent two or three weeks at a Peoria glucose factory, studying the methods of its production and trying to understand its uses in the nation’s rapidly industrializing food supply. See Wiley, *Harvey W. Wiley: An Autobiography*, 151-152. In fact, he twice tried to organize glucose factories, once in late 1881 or early 1882 while attempting to buy a Boston beet-sugar factory and convert it to glucose

unwholesome from a chemical point of view, Wiley's research stimulated his growing conviction that legislation was needed to protect farmers from having to sell their products in competition with adulterated goods.⁹⁴³ This was because regulations on the use of glucose were nonexistent. Somewhat later, he extended those convictions to encompass protecting the consumer from fraud.⁹⁴⁴ As early as Purdue's 1881-1882 academic year, he proposed that the labels of syrups mixed with glucose ought to note their contents, and in 1882, he sought to have the state of Indiana legislate against such adulteration.⁹⁴⁵ As Wiley later explained, "I was not opposed to glucose, but...was a firm believer in its value when legitimately used. What I was opposed to was its extensive use as an adulterant."⁹⁴⁶

GLUCOSE TAXATION, 1882

Wiley was far from alone in pondering the growing prevalence of glucose in the nation's foodways. During the last quarter of the nineteenth century, representatives from the government, corporations, chemists, and consumers crafted lively discourses about the ubiquity of glucose and the problems and benefits presented by its use. In 1882, Congress entertained a bill as to whether glucose should be taxed.⁹⁴⁷ This proposition arose out of public exchanges in which glucose had become something of a whipping boy. Despite the fact that American brewers and confectioners eagerly adopted glucose syrup as a useful ingredient, the late 1870s and early 1880s were marked with growing consumer skepticism at the mysterious substances appearing in prepared foods. This was especially true among women in charge of household food consumption. From Michigan to New York, members of the Women's Christian Temperance Union and various women's clubs had sought to enlarge public awareness of the problem of

production, and later seeking to organize a glucose company in Lafayette. Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 26-27.

⁹⁴³ Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 89.

⁹⁴⁴ In 1899 and early 1900, Wiley testified about injuries done by glucose to the pocketbook. *Ibid.*, 129-130.

⁹⁴⁵ Wiley, *Harvey W. Wiley: An Autobiography*, 152; Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 22.

⁹⁴⁶ Wiley, *Harvey W. Wiley: An Autobiography*, 137-139, 150-151.

⁹⁴⁷ This was H.R. 3179. Frederick W. True, *A History of the First Half-Century of the National Academy of Sciences, 1863-1913* (Washington: The Lord Baltimore Press, 1913), 293-294.

unwholesome and adulterated foods since at least 1879.⁹⁴⁸ Because glucose relied upon acid for its production, because it sounded like it might be a product from a glue factory, and because it was increasingly incorporated into food products without consumer knowledge, the product (much like refined lard and oleomargarine) became a central target for those concerned with food reform. Newspapers fanned the flames of housewives' concerns. In January of 1881, for instance, *The Washington Post* reported, "Sugars are...largely adulterated...by glucose, which is manufactured from starch, by boiling with sulfuric acid."⁹⁴⁹ They were far from the only paper to express such sentiments that month. Rural and agricultural papers voiced special concern about the syrup, its place on tables, and what it meant for other agricultural industries. Upon the construction of a local glucose factory, the Lansing-based *Michigan Farmer* advised that readers could "get their adulteration right at home, instead of sending to Buffalo for it."⁹⁵⁰ When *Colman's Rural World* learned that the city of Des Moines was considering a glucose works, it advised abandoning the project on account of "the fraud" of adding glucose to cane and "sorgo syrup" and the danger of damaging "the internal organs of the consumer."⁹⁵¹ Likewise, the *Ohio Farmer* cautioned that even though the lime added to the sulfuric acid used to break apart the starch meant that the latter ingredient was generally neutralized in glucose production, this was not always the case, and thus undesirable chemical leftovers were not infrequently found in glucose-laden foods sold to the consumer. "Nice stuff to set on our family table!" the author remarked. If glucose had to be sold on the market, s/he informed the paper's readers, "Let glucose be properly made and put upon the market under its own name."⁹⁵²

Companies selling competing products like cane sugar sought to capitalize upon consumer reticence. In 1881, for example, New York's Havemyers & Elder, Decastro & Donner Refining Company—aware of problems that consumers were finding with adulterated cane sugar—reminded readers nationwide that "Neither Glucose...nor any

⁹⁴⁸ Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914*.

⁹⁴⁹ "Food Adulteration," *The Washington Post*, January 9, 1881, 3.

⁹⁵⁰ "City Items," *Michigan Farmer*, January 11, 1881, 2.

⁹⁵¹ "Adulterating with Glucose," *Colman's Rural World*, January 20, 1881, 1.

⁹⁵² Fanny Field, "The Food We Eat," *Ohio Farmer*, May 14 1881, 326.

other foreign substance whatever is, or ever has been, mixed with” their refined sugars.⁹⁵³ Even companies promoting patent medicines, items of trade that would become equally suspect in a matter of years, jumped on the anti-glucose bandwagon. The manufacturer of “Warner’s Safe Kidney and Liver Cure” explained that adulterated sugar, of which glucose was the major culprit, created a “relation” of “open hostility” with the kidneys, and that such sugar “acts like a violent poison” on “delicate” organs.⁹⁵⁴

Given these calls for action, it is not surprising that when Congress entertained the option of taxing glucose in 1882, more than 700 individuals, by one account, wrote to their representatives to complain that the supposedly dangerous product was linked to “violent cold perspirations, severe persistent headaches, and other disagreeable symptoms, arsenic poisoning, dyspepsia and flatulency, and even acidic corrosion of iron bolts.”⁹⁵⁵ During Congressional hearings that spring, the cane sugar industry sought to build on consumers’ fears of widespread adulteration in order to protect itself against the glucose industry’s potential competition. One New York cane sugar importer—suggesting that glucose had not yet been shown to *not* have “an injurious effect upon the membrane of the stomach,” nor had it been proven that it “was not unwholesome”—asserted that it fell upon the government to protect “the honest consumer” by bringing the price of glucose up to that of cane sugar.⁹⁵⁶ Still, the glucose industry held their ground as to the harmlessness of their product and—crucially—emphasized the socio-economic benefits it bestowed upon the nation. Shortly after the bill came before Congress, they had organized as “The National Glucose and Grape Sugar Association.”⁹⁵⁷ That March, representatives from the newly united Association testified that the sugar industry was behind the proposal to tax glucose. Moreover, they added, theirs was a harmless product of the West and an employer of “fifty thousand” men, both in its manufacture and in the

⁹⁵³ Their ad stated that they had posted an affidavit to this end on November 18, 1878. See Decastro & Donner Refining Co. Havemeyers & Elder, “Pure Sugar,” *Harper’s Weekly*, September 3 1881.

⁹⁵⁴ “Adulterated Dangers. Glucose.,” *Chicago Daily Tribune*, January 13, 1881, 3.

⁹⁵⁵ Representative Young of Ohio proposed to “tax and regulate the sale of glucose” in January of 1882. See “A Shower of Bills in the House,” *The Washington Post*, January 17, 1882, 1; Peckham, “Economics and Invention: A Technological History of the Corn Refining Industry of the United States,” 234.

⁹⁵⁶ “Memorial of the Glucose & Sugar Man’f’rs of the United States against the Ratification of the Proposed Treaty with Spain. Addressed to the Senate of the United States,” January 5, 1885. Rare Book Room, Library of Congress, Washington, D.C.

⁹⁵⁷ “Glucose Manufacturers,” *Chicago Daily Tribune*, February 16, 1882, 8.

extraction of other natural resources, like coal, used to fire its plants. Their industry, they contended, needed development, not prohibitory taxation.⁹⁵⁸

In 1884, the National Academy of Sciences released a report that the Commissioner of Internal Revenue had requested in 1882 as to “the composition, nature, and properties of the article commonly known as ‘glucose’ or ‘grape-sugar.’” The Academy concluded that the processes of making glucose and grape sugar were “unobjectionable in their character” and that starch-sugar comprising glucose syrup and the dried “grape sugar,” though not as sweet as cane, formed products “of exceptional purity and uniformity of composition.”⁹⁵⁹ Glucose manufacturers, therefore, held this apparent trump card aloft when the Senate considered a proposed treaty of reciprocity with Spain (which still held sugar-producing Cuba and “Porto Rico” as colonies). They contended that glucose produced from cornstarch “contains no injurious substances” and reiterated the key argument they had introduced in 1882: unlike imported sugarcane, glucose produced from American-grown corn could keep American farmers busy, workers employed, and manufacturers profitable. Domestic glucose production, they explained, utilized “19,032,000 bushels of corn annually” grown on “634,400 acres of land” and occupied “19,032 farmers” with the task of “plow[ing], plant[ing], cultivat[ing], husk[ing], and carry[ing] to the market the corn...consumed by the glucose works.” This, of course, contrasted with imported sugar’s incapacity to employ Americans. At a moment when “universal business depression” was “prevailing,” the glucose industry cannily argued that unlike sugar, glucose “employs [the nation’s] labor, pays its wages, uses its corn, and supplies its consumers.”⁹⁶⁰

What the 1880s debates about glucose taxation in relation to sugar tariffs reveal, therefore, is that consumers, manufacturers, the newspapers that agricultural populations read, and regulatory arms of government were actively envisioning and contesting the inclusion of refined corn products in the nation’s foodways from some of the earliest moments in the refining industry’s history. Much as the invention of cornstarch enabled

⁹⁵⁸ "Committee Work," *Chicago Daily Tribune*, March 8, 1882, 2; "Glucose before Congress," *Massachusetts Ploughman and New England Journal of Agriculture*, April 1, 1882, 2.

⁹⁵⁹ Kidder, "Some Food Substitutes and Their Adulterants," 88-89; True, *A History of the First Half-Century of the National Academy of Sciences, 1863-1913*, 293-294.

⁹⁶⁰ "Memorial of the Glucose & Sugar Man’f’rs of the United States against the Ratification of the Proposed Treaty with Spain. Addressed to the Senate of the United States," January 5, 1885. Rare Book Room, Library of Congress, Washington, D.C.

the product to supplant the use of wheat starch in home laundering and that of arrowroot starch on dining room tables earlier that century, refiners' discoveries of the corn kernel's remarkable plasticity after the Civil War gave rise to new modes of inter-industry competition in the latter decades of the nineteenth century. As chemists created new processes to take advantage of malleable corn components by separating the three main components of a kernel of corn—the oily and protein-rich germ, the main starchy body, and the protective outer hull—and manipulating them into a range of secondary products, glucose manufacturers foresaw that their products could hold political and economic weight with the government. Speaking on behalf of the farmers and laborers, whose pocketbooks the glucose manufacturers purported to enrich, corn refiners explained that domestically grown and processed commodities could become important substitutes for imported goods. The government's further encouragement of the industry, they promised, would patriotically transform the versatile corn plant into new products for domestic consumption while keeping farmers occupied and urban workers employed. The glucose manufacturers' reasoning held a great deal of resonance for a government increasingly aware of radicalizing populations of agrarian populists and unsatisfied urban wage workers.⁹⁶¹ At the same time, however, chemists' adeptness with manipulating the nature of the plant precipitated consumers' uncertainties about the product's prevalence in the nation's foodways.

The discursive patterns established before, during, and in the wake of the 1882 Congressional hearings recurred in ensuing years and with growing levels of intensity. For despite the fact that the glucose industry may have been good news for manufacturers, factory employees, and farmers, the debates among government, consumer, and industry stakeholders did not settle the place of glucose in the nation's foodways. Over the next few decades, Wiley became increasingly interested in consumer protection. In 1892, he published "Sugar, Molasses and Sirup, Confections, Honey and Beeswax" as part of his Bureau of Chemistry publication on the state of food adulteration. Collaborating with state chemists, he sought to synthesize, in one historian's phrase, "the extent of the evil" of the adulteration of syrups, confectionery, and honey with glucose. Though he did not paint the product as a health problem per se,

⁹⁶¹ Goodwyn, *The Populist Moment: A Short History of the Agrarian Revolt in America*.

he argued that its use had become a clear question of consumer fraud.⁹⁶² And in 1899 and early 1900, Wiley testified about injuries done by glucose to the pocketbook.⁹⁶³ He was not alone in his sentiments, for in April of 1898, Chicago's Glucose Sugar Refining Company felt impelled to publish "many thousands of copies" of a pamphlet about their industry in an attempt to demonstrate to the public that their product was wholesome and pure.⁹⁶⁴ But their promotions may have been to little avail. In 1899, the editor of *Club Woman* cited the substitution of "glu[ucose] molasses for that of the sugar cane" as among the many examples of the "avenues of trade" poisoned by manufacturers.⁹⁶⁵ A year later, *Science* magazine reiterated that glucose was not only used in but also a "Chief Adulterant" of syrups, beer, confectionery, canning, jelly, cooking, and the production of artificial honey and vinegar.⁹⁶⁶ And if we are to believe the 1902 testimony of a spokesman for the wholesale grocers in Chicago, widespread skepticism about the nature of glucose meant that consumers would not buy apple jelly if it were labeled as glucose mixed with apple juice extracted from skins and cores.⁹⁶⁷

While glucose was not the only foodstuff to be scrutinized in the name of consumers' quests for pure food (between 1879 and 1906, some 190 measures regarding pure foods came before Congress), the growing number of bushels of corn consumed by the corn refining industry during the latter part of the nineteenth century and the product's increasingly central place in Pure Food campaigns are signposts of a wholesale transformation—albeit hotly contested—occurring in the variety and nature of foods being made available for consumer purchase.⁹⁶⁸ As chapter three's discussion of the transition from home-rendered to industrially-manufactured lard illuminates, urban citizens were increasingly purchasing rather than producing their foods, and

⁹⁶² Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 71-74.

⁹⁶³ *Ibid.*, 129-130.

⁹⁶⁴ The GSRC published this information in a booklet entitled "Statistics of the Glucose Industry." See Harvey W. Wiley, "Brief of H. W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 12-13; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

⁹⁶⁵ She referred to "gluten molasses," which I believe was an erroneous reference to glucose. "In the Interest of Righteousness," *Club Woman*, October, 1899, 23. Quoted in Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914*, 137.

⁹⁶⁶ Kidder, "Some Food Substitutes and Their Adulterants."

⁹⁶⁷ Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 138.

⁹⁶⁸ Of the measures presented, 141 died after being introduced and only eight became laws. The others were abandoned at different stages. Thomas A. Bailey, "Congressional Opposition to Pure Food Legislation, 1879-1906," *The American Journal of Sociology* 36, no. 1 (1930): 52.

manufacturers were quite happy to provide them with canned, boxed, bottled, or otherwise preserved goods. Though clubwomen acted as strong advocates for the purity of these products, many Americans yet believed that they did not need government oversight to determine what they ingested and that they could determine any humbug in the food for themselves. “The average American,” *Science* wrote, “repudiates the idea of a paternal government supervision over his affairs...[and supposes] that...no cheat or swindler can ever get the better of him.”⁹⁶⁹ Even so, to this nod to P.T. Barnum’s legacy, Harvey Wiley could only chastise the American consumer: “To be cheated, fooled, bamboozled, cajoled, deceived, pettifogged, hypnotized, manicured, and chiropodized,” he observed in an 1892 speech, “are privileges dear to us all. Woe be to that paternalism in government which shall attempt to deprive us of these inalienable rights.”⁹⁷⁰ Whereas Barnum’s earlier commercial genius lay in his discovery that questions of authenticity were saleable and that the humbug of print culture could be translated to attendance figures at his museum, Wiley recognized that there was no pleasure to be gained from improperly identifying foods poisoned foods as healthful. The passage of the Pure Food and Drugs Act of 1906, therefore, sought to stymie the interstate circulation of all possible food humbuggery.⁹⁷¹ And as the discussion of corn syrup below demonstrates, the passage of the 1906 legislation was yet an early moment in the shaping of industrial food systems.

SWEETENING AMERICA ON “KARO” BEFORE & AFTER THE PURE FOOD & DRUGS ACT CORPORATE GENEALOGIES, FROM GLUCOSE TO KARO

⁹⁶⁹ Here the magazine alluded to state laws, but observed that these were “merely dead letters,” because they did not target the interstate commerce of the goods. “[U]ntil we have a general law on the subject, drawn up with clear definitions of adulteration and adequate means for the enforcement, by the co-operation of State and National authorities,... the food sophisticator will pursue... undisturbed.” Kidder, “Some Food Substitutes and Their Adulterants,” 89-90.

⁹⁷⁰ This comment appears to have been given in a speech delivered to Philadelphia’s Franklin Institute in December 1892, and published in the institute’s journal in April, 1894. See Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 80, 291.

⁹⁷¹ On humbugs in print culture, see Andie Tucher, *Froth and Scum: Truth, Beauty, Goodness, and the Ax Murder in America's First Mass Medium* (Chapel Hill: University of North Carolina Press, 1994), 55-59. On P.T. Barnum’s use of the humbug, see Cook, *The Arts of Deception: Playing with Fraud in the Age of Barnum*. On the place of women crusading for the Pure Food Act, see Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914*.

While industrial consumption of glucose for the production of manufactured foods remained a major business concern and an object of contention for *fin de siècle* food reformers, the home syrup industry was neither fully tapped nor widely regulated. During the 1890s, corporate competitions for consumers' syrup loyalties were just thickening. But by 1912, Perry Holden—an apostle of scientific agriculture of whom we will learn more in chapter six—was able to assert that among the many products then made by the Corn Products Refining Company (a Standard Oil offshoot and the largest of the nation's corn refining concerns, hereafter noted as the CPRC), among the most notable was “Karo Syrup...which most of us have used.”⁹⁷² [Image 5.4] How, in such a short time, could Holden have become certain that Karo—a name brand for a sweetened version of the utilitarian but controversial “glucose”—had been tried or was being used by “most” everyone he could imagine? How were tenuous relationships among the would-be regulators, producers, and consumers disputed and settled in ways conducive to the product's massive popularity? And what were the links between Karo's ubiquity and the threats that corn sugar ostensibly posed to consumers' stomachs in 1930?

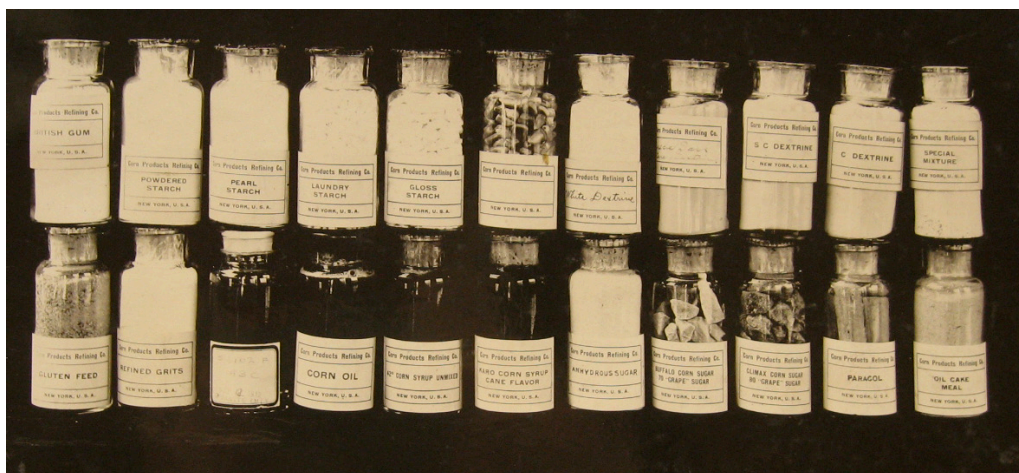


Image 5.4 / “All these are manufactured by the Corn Products Refining Company.”

Some explanations for Karo's rise to rapid widespread consumer adoption lie in a series of aggressive horizontal combinations, the CPRC's implementation of vertical

⁹⁷² Around 1912, the CPRC sent Holden, who was then working for the International Harvester Company, a set of photographs showcasing the variety of products that their scientists had managed to extract from kernels of corn. Holden pasted these in scrapbooks. Of the array, Karo and Argo were the only CPRC products he described as ubiquitous. See International Harvester Company, *Agricultural Extension Department Photograph Albums, 1902-1935*; McCormick collection series 13Z, Box 1, Vol. 2, Corn #1, 30, 32, Wisconsin Historical Society, Madison, Wisconsin.

business practices, and a reliance on price wars. By the end of the 1890s, combinations across cornstarch, sugar, and glucose corporations had left the Chicago-based Glucose Sugar Refining Company (GSRC) as the nation's dominant producer of glucose derived from corn. These consolidations and takeovers were rooted in the general depressions marking the 1890s, as business volatility prompted the nation's leading glucose corporations to combine so that they could better control prices. The GSRC, of which the CSRC (for whom the sugar-creating scientist Behr had worked in 1880) became a part, was the product of these measures.⁹⁷³

When the GSRC entered the marketplace in 1897, it controlled 85% of the nation's glucose production, most of which was still destined for the brewing and confectionery industries.⁹⁷⁴ In September of 1900, the GSRC received a trademark for "Kairomel" Brand Corn Syrup. As they advertised the product, one of their first ventures into the table syrup market, they may well have sought to call both the sweet properties of caramel and a well-known variety of Louisiana sugar cane to consumers' minds. According to one description, their brand's trademark featured "a picture of a corn stalk showing the tassel and the ears of corn" alongside "a bunch of corn stalks tied... with a white ribbon," an allusion to the White Ribbon sugarcane that had been the subject of much USDA research.⁹⁷⁵ Like other glucose products then marketed for table use, Kairomel was actually a blend of corn and cane syrups, because unmixed glucose was so much less sweet than cane products.⁹⁷⁶ This concoction sold between 1901 and 1903, with grocers advertising Kairomel as "delicious on cakes" and "pure and wholesome."⁹⁷⁷

⁹⁷³ Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 250, 256-257.

⁹⁷⁴ Ibid., 257-259. In January of 1898, the Chicago Daily Tribune reported that while "confectioner's and brewer's glucose" were the major products of "the glucose manufacturing process," the glucose industry was producing "thirty-two different products." See "Modern Uses for King Corn," *Chicago Daily Tribune*, January 5, 1898, 10. Later that year, the GSRC reported that their industry produced "seven or eight different grades of glucose" alone, "each grade especially suited to the requirements of the syrup mixer, the jelly manufacturer, the confectioner, the brewer." See Glucose Sugar Refining Company, "Statistics of the Glucose Industry," April, 1898, 5, cited in F.L. Dunlap, "Brief on the Labeling of Corn Products" from the Board of Food & Drug Inspection to the Secretary of Agriculture, December, 1907; GC, 7, Corn Products, 1907-1908; RG 16; NACP. See also Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 8; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

⁹⁷⁵ Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 90; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

⁹⁷⁶ The GSRC may have marketed a "bee hive" brand of table syrup produced from corn, cane stalks, and sugar beets as early as May, 1894. In 1901, they received trademark number 35398 for their syrup, which featured an image of a bee hive. See Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn

After the GSRC defaulted on a fuel bill owed to Standard Oil, however, the ire they raised with Rockefeller's corporation prompted the latter to construct its own highly funded New York Glucose Company (NYGC), which began operations on the East coast in early 1902. Meanwhile, lowered dividends stemming in part from rising corn prices forced the GSRC to combine with the National Starch Company (NSC) and with other corn refining firms, and to incorporate as yet another entity, the Corn Products Company (CPC).⁹⁷⁸ The creation of the CPC in 1903 also encompassed the partial combination of the GSRC and the NSC with the NYGC: the CPC would hold 49% of the Standard Oil offshoot's stock, while the NYGC remained a separate entity.⁹⁷⁹ Thus re-organized, the new CPC, which had inherited "Kairomel" from its predecessor, first put "Karo Corn Syrup" on the market in the fall of 1903, the heir apparent to the earlier corn and cane syrup blend.⁹⁸⁰

THE CPC AND THE NATURE OF CORN SYRUP

It would be an understatement to say that the inclusion of glucose in manufactured foods without consumer knowledge inspired rancor among pure food crusaders. Much as the wholesale grocer's 1902 testimony suggested that consumers would not purchase apple jelly if labeled as made with glucose, in 1903, the State

Syrup as a Synonym for Glucose," December 31, 1907, 93; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP. Other competing corn and cane blends of table syrups marketed between 1893 and 1907 included "Century Brand Fancy Table Syrup," "Crystal Drips," "Sweet Clover Drips," and "Choice Table Syrup." See Corn Products Refining Company, "Copies of Opinions of Chemists and Others on the Meaning of the Word "Syrup" And the Use of the Term "Corn Syrup" Under The "Food & Drugs Act" Of 1906 Presented to the Hon. James Wilson Secretary of Agriculture December, 1907," (Library of Congress), 39-41.

⁹⁷⁷ "Charles H. Slack Grocer," *Chicago Daily Tribune*, October 6, 1901, 41; "Charles H. Slack Grocer," *Chicago Daily Tribune*, October 18, 1903, 46.

⁹⁷⁸ Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 261, 264, 267-269; "New Glucose Refinery," *New York Times*, December 20, 1900, 6.

⁹⁷⁹ Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 268-269.

⁹⁸⁰ Karo went on the market in 1902, according to CPC International, *Cpc International: Products and Markets in Its 75th Year*, 1981, 8; Pamphlet Files, Box: C-10, "CPC International, Inc." Hagley Museum and Library (HAG), Soda House, Wilmington, DE. However, Harvey Wiley noted that the CPC registered a trademark for Karo on September 15, 1903. See Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 91; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP. Wiley's claim of the later date is more convincing, given that the first apparent Karo advertising and puffery appeared in the fall of 1903. See for instance "Karo Corn Syrup the New Table Delicacy," *Chicago Daily Tribune*, August 3, 1903, 4; "A Marvelous Success," *New York Observer and Chronicle*, September 10 1903, 344; Helen Armstrong, "Karo Delicacies," *The Ladies Home Journal*, October 1903, 37.

Supreme Court of Michigan observed, “The consuming public does not understand that glucose is syrup made entirely from corn. On the contrary, it is claimed...that the public generally supposes glucose to be an inferior product made from animal fat, or a product of the glue factory.”⁹⁸¹

Because the CPC felt consumers’ antipathies to glucose so strongly, the company’s first order of business was to sweeten prospective buyers on their main product, which was indeed glucose by another name. Though they accomplished this by a variety of means, their primary tactics were to emphasize “Karo Corn Syrup” as a brand and to connect that product with images of products or natural spaces that consumers were already comfortable with: honeybees, idyllic cornfields, and aesthetically pleasing ears of corn. Taking a page from the nature-oriented imagery exemplified in the trade cards circulated by lard manufacturers before them, they elided both the word “glucose” and the industrial machinations through which they put their product. In the texts of their advertisements, therefore, the CPC promoted Karo Corn Syrup to housewives and labeled it as a product derived directly from corn. In magazines and in newspapers, the CPC told consumers that Karo Corn Syrup “is made from that portion of the corn kernel which contains the greatest strength-giving, energy-producing and flesh-forming elements;” that “[t]he process of extracting and retaining... valuable food properties [from Corn] have made Karo Corn Syrup The Great Spread for Daily Bread;” and that it “[c]ontain[ed] all the nutritive, strengthening properties of corn in a pre-digested form, ready to use by the blood immediately upon entering the stomach;” “the pure golden essence of corn;” and “Golden Grain Made into golden syrup.”⁹⁸² **[Images 5.5-5.6]** Allusions to glucose, acids, and cane additives were decidedly absent from advertisements, packaging, and promotions.

⁹⁸¹ *Eleventh Annual Report of the Dairy and Food Commissioner of the State of Michigan, Year Ending June 30, 1904*, (Lansing: Wynkoop, Hallenbeck, Crawford Co., 1905), 163-164. See also Corn Products Refining Co., “Copies of Opinions of Chemists and Others on the Meaning of the Word “Syrup” And the Use of the Term “Corn Syrup” Under The “Food & Drugs Act” Of 1906 Presented to the Hon. James Wilson Secretary of Agriculture December, 1907.,” 5.

⁹⁸² “Karo Corn Syrup the New Table Delicacy,” 4; “Golden Grain,” *Chicago Daily Tribune*, August 14, 1903, 14; “Karo Corn Syrup. Better Than Honey for Less Money,” *New York Times*, September 3, 1903, 3; “A Breakfast Treat That Makes You Eat,” *Chicago Daily Tribune*, October 16, 1903, 7; “Golden Grain Made into Golden Syrup,” *The Youth's Companion*, October 22 1903, IV.



Image 5.5 / "Two Kinds of Honey," 1904. Image 5.6 / "Better Than Honey For Less Money," 1903.



Image 5.7 / "Golden Grain," 1903. Image 5.8 / "Essence of the Corn," 1904. Image 5.9 / "Golden Syrup Made from Golden Grain," 1904.

The CPC sought to convey these ideas through their advertisements' images as well. In Chicago and New York newspapers, descriptions of the syrup's virtues were set within images of fields of corn or under a decorative arch of cornstalks.⁹⁸³ [Images 5.7-

⁹⁸³ "Golden Grain," 14; "Essence of the Corn," *New York Times*, January 14, 1904, 2.

5.8] Other ads for Karo placed text within individual ears of corn or within sets of ears arranged much like the corn then being displayed at corn shows in seed selection competitions.⁹⁸⁴ [Image 5.9] Through such images, the CPC sought to ensure that consumers were thoroughly saturated with the message that although this was a new kind of syrup, it derived from the familiar corn plant and had no discernable link to glucose.

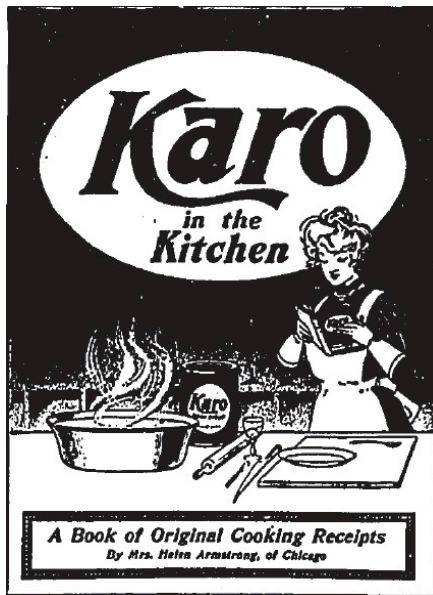


Image 5.10 / "Karo in the Kitchen," 1904.

Because establishing positive associations between their product and corn plants—rather than to the industrial processes in which cornstarch became glucose—was central to the company's corporate success, the CPC also turned to the government for official support of the ways in which it sought to convey its messages to consumers. In the fall of 1903 as its campaign to introduce Karo was under way, the CPC asked the new Standards Committee being formed by Secretary of Agriculture James Wilson to define "Corn Syrup, both as a synonym for glucose and as a name for a mixture of glucose with some of the products of sugar cane." When his department published its set of national food standards in December of 1904, the Committee accommodated the CPC's request and defined "[g]lucose syrup, or corn syrup, [as] glucose unmixed or mixed with [sugar cane] syrup or molasses."⁹⁸⁵ Though the wording would not long stand, for a moment,

⁹⁸⁴ "Karo Corn Syrup," *New York Times*, March 31, 1904, 2; "Golden Grain Made into Golden Syrup," IV.

⁹⁸⁵ "Pure Food Standards," *New York Times*, November 22, 1903, 10. This was published a year later in December 1904 by the USDA's Standards Committee, in Circular 13, p 9, Section 3b. See Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 1; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

the government's expansive definition of corn syrup facilitated the advertisements the CPC circulated while generating a first wave of consumer demand for its product.

The CPC sought to establish consumer trust in their product in other ways. One important ploy was to hire home economist Helen Armstrong to publish *Karo in the Kitchen*, a recipe book released under the CPC's auspices in the fall of 1903.⁹⁸⁶ **[Image 5.10]** As other scholars have observed, domestic advisors hired by corporations in the early twentieth century played significant roles in mediating the worlds of production and consumption.⁹⁸⁷ Although Armstrong elided the details of the manufacturing process in writing about Karo's virtues, her renown projected a trustworthy assertion of the product's purity and wholesomeness.⁹⁸⁸ In the book's introduction, she testified both to having "thoroughly tested the Karo Corn Syrup in [her] own kitchen" and having "spent some hours in visiting the factory where it is made." Relating her observations of "the extreme care in every detail and the absolute cleanliness of its manufacture" (but not explaining how the product was produced), she expressed her "satisf[action] that it is a wholesome, desirable article with real food value" and assured that the product would "prove its motto, "Better than Honey for Less Money.""⁹⁸⁹ The fact that her book was free to consumers who wrote to the company to request a copy corresponded well to print

⁹⁸⁶ For early CPC/Armstrong ads, see "A Marvelous Success," 344; Armstrong, "Karo Delicacies," 37.

⁹⁸⁷ Ruth Schwartz Cowan, "The Consumption Junction: A Proposal of Research Strategies in the Sociology of Technology," in *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, ed. Wiebe Bijker, Thomas Hughes, and Trevor Pinch (Cambridge: MIT Press, 1987); Steven Lubar, "Men, Women, Production, Consumption," in *His and Hers: Gender, Consumption and Technology*, ed. Roger Horowitz and Arwen Mohun (Charlottesville: University of Virginia Press, 1998); Carolyn M. Goldstein, "Home Economics: Mediators," in *Gender & Technology: A Reader*, ed. Nina E. Lerman, Ruth Oldenziel, and Arwen Mohun (Baltimore: The Johns Hopkins University Press, 2003); Carolyn M. Goldstein, "Part of the Package: Home Economists in the Consumer Products Industries, 1920-1940," in *Rethinking Home Economics: Women and the History of a Profession*, ed. Sarah Stage and Virginia Vincenti (Ithaca: Cornell University Press, 1997).

⁹⁸⁸ Not unexpectedly, the articles released to puff the book's publication emphasized the product's naturalness. The syrup, she (or possibly the advertising department of the CPC) wrote, derived from "corn, a grain which is typical of perfection in America." Like the ads being released concurrently, she did not tell them that it went through a series of chemical and mechanical interventions to become the syrup they would pour over their breakfasts. For examples of her testimonials as to the syrup's goodness, see "Karo in the Kitchen," *The Ladies' Home Journal*, April 1904. See also CPC International, *Cpc International: Products and Markets in Its 75th Year* (1981), 8. Pamphlet Files, Box: C-10, "CPC International, Inc." HAG, Soda House.

⁹⁸⁹ Testimonial by Helen Armstrong, dated 1903 in Helen Armstrong and Janet M. Hill, *Karo Recipes for Cooking and Candy Making* (Davenport, IA: Corn Products Refining Co., 1908), 1; Culinary ephemera: fruits, vegetables, and nuts, Box 55, Item 6, CLEM.

advertisements' claims as to the product's reasonable cost.⁹⁹⁰ The different recipes she offered, meanwhile, showcased the product's versatility and its ability to substitute for other sweeteners like honey and sugar.⁹⁹¹ That same malleability resonated with claims that Karo was good for all appetites. Given that sanitarily sealed cans of Karo met experts' demands, could appeal to different eaters' tastes, might produce a variety of foods, and had the potential to satisfy consumers' desires for affordability, the CPC sought to use Armstrong's work and their advertisements to show housewives that their selection of the new product would reflect well upon the consumer herself as an up-to-date, modern woman.⁹⁹²

Though the CPC's barrage of advertisements reached a national audience and created a quick demand for the product, and although the company's first stockholder reports showed promising profits and paid excellent dividends, fires at some of the CPC's manufacturing plants and growing price warfare between the NYGC and the CPC diminished the consolidated firm's market share and their net profits. After shareholders rebelled against the negative turn of events in 1905, they proposed that the CPC merge with its rival, the NYGC.⁹⁹³ Re-incorporated in February of 1906 as the Corn Products Refining Company (CPRC) with the NYGC's Edward T. Bedford at the helm (formerly with Standard Oil), the new entity—conspicuously lacking “glucose” in the firm's title—immediately controlled all of the nation's glucose production.⁹⁹⁴ **[Image 5.11]**

⁹⁹⁰ For information on the recipe book's free availability from the CPC, see "A Marvelous Success," 344; Armstrong, "Karo Delicacies," 37. By extension, for the company's claims to the product's cheap cost and value, as “better than honey for less money,” see "Two Kinds of Honey," *The Cosmopolitan; a Monthly Illustrated Magazine*, April 1904, 823.

⁹⁹¹ For claims to its different uses, ie “good for all home uses from griddle cakes to candy” and “a fine spread for children's bread, good for every article of diet requiring sweetening, from cakes to candy” see "Karo Corn Syrup. The Great Spread for Daily Bread," *The Youth's Companion*, December 31 1903, 668; "The Rival of the Bee," *Lippincott's Monthly Magazine* 1904, 59.

⁹⁹² For an example of claims to “airtight, friction-top tins,” see "Top Notch Butter Scotch," *New York Times*, October 1, 1903, 6.

⁹⁹³ Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 269, 272-273. For CPRC response to government charges about its origins, see Boardman & Platt O'Brien, Lyford & Shean, "The United States of America Vs. Corn Products Refining Company and Others, in Equity, No. E10-122. Answer.," (District Court of the United States for the Southern District of New York, 1913).

⁹⁹⁴ CPC International, *Cpc International: Products and Markets in Its 75th Year*. 1981. Pamphlet Files, Box: C-10, "CPC International, Inc." 1, 20, Hagley Museum and Library, Soda House, Wilmington, DC. For market share, see Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 274-275. Regarding the elimination of the word “glucose” from the CPRC's name, there may be a parallel between the CPRC's elision of the word and the fact that Bedford later



Edward Thomas Bedford ,



Image 5.11 / Edward Thomas Bedford, 1915. **Image 5.12** / Karo Corn Syrup with Cane Flavor, 1907

THE CPRC AND GOVERNMENT REGULATION

But while the CPC's task had been to articulate to consumers how Karo syrup was healthful, delicious, and trustworthy, the CPRC—emerging as it did from intense competition within the glucose industry in the same year that Congress passed the Pure Food and Drugs Act—needed to ensure that the government would allow them to continue to sell Karo to housewives in a way that maintained consumers' trust. Because this task was central to its survival as a corporate entity, the CPRC left a rich archival trail not only in its advertisements and cookbooks but also within the files of the USDA. Their lobbying efforts, through which they sought to shape the political playing fields on which the corporation sought to conduct business, were thickest at their greatest moments of policy contention. The CPRC's dalliances towards the USDA following the passage

wanted to change the name of one of its subsidiaries, the Glucose Sugar Co., to the Corn Products Manufacturing Co. because "we desire to do away with the word glucose as much as possible." See "Corn Products Refining. Reasons for Changing Name of Glucose Company," *Wall Street Journal*, December 10, 1906, 3.

of the Pure Food and Drugs Act prepared the way for the government's responsiveness to the corn refining industry throughout the century.

With public awareness of adulterated foods growing as the passage of the Pure Food and Drugs Act became more plausible in 1906, protests against the USDA's earlier decision to permit the unlabeled mixing of corn syrup with cane products caused the USDA's Standards Committee to revise the Secretary's earlier decision. Published only days before the Pure Food and Drugs Act passed, a new set of standards prohibited manufacturers from labeling corn and cane blends as corn syrup.⁹⁹⁵ Meanwhile, the passage of the Pure Food and Drugs Act at the end of June signaled a major change. Along with other food manufacturers, the CPRC would have to "conspicuously state" the ingredients used in the production of prepared foods beginning in January of 1907.⁹⁹⁶

The CPRC spent \$500,000 to comply with the requirements of the Pure Food and Drugs Act and began to label its products as "Karo Corn Syrup with Cane Flavor."⁹⁹⁷ **[Image 5.12]** However, in the company's labels and in the advertisements released in October 1907, the date by which manufacturers were required redesign their labels so as to comply with the provisions of the Act, they still did not use the word "glucose" or inform consumers that their product was comprised of cornstarch hydrolyzed with an acid and then mixed with refiners' syrup.⁹⁹⁸ Rather, given that they were no longer able to claim their product's relationship to corn alone, they described it as a "food" of enormous value, or simply "an everyday sweet," and continued to allude to its corn origins through visual references to ears of corn.⁹⁹⁹ **[Images 5.13-5.14]** In this roundabout way, the CPRC's advertising department accommodated the Act's new labeling requirements.

⁹⁹⁵ See Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 2; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

⁹⁹⁶ "A Fortnight under the Pure Food Law," *New York Times*, January 13, 1907, SM5.

⁹⁹⁷ For expense, see "Corn Products Refining. Reasons for Changing Name of Glucose Company," 3. For sample of new advertisement and new label, see "For "Goodness" Sake," *New York Times*, October 29, 1907, 2.

⁹⁹⁸ For October date, see "A Fortnight under the Pure Food Law."

⁹⁹⁹ "Good on Hot Cakes," *New York Times*, November 5, 1907, 2; "Best for Cakes of All Makes," *New York Times*, January 10, 1908, 2.

For
"Goodness"
 Sake Get

Karo
 CORN SYRUP

*A Treat That
 Makes You Eat*

Karo Corn Syrup is more than "goodness"—it's a food so valuable in its properties that authorities class it high among food products. Not only nutritious, but delicious—a golden syrup of exquisite flavor that pleases all palates. Forevery use from griddle cakes to candy.

10c, 25c and 50c in air-tight tins.

CORN PRODUCTS
 MANUFACTURING
 COMPANY.

Image 5.13 / "For "Goodness" Sake Get Karo Corn Syrup," 1907.

**Good on
 Hot Cakes**

Karo Corn Syrup—a better syrup than you ever tasted.

Karo
 CORN SYRUP

is a *food* sweet, and best fulfils every purpose for which a syrup can be used.

In 10c, 25c, 50c air-tight tins.

CORN PRODUCTS
 MFG. CO.

Image 5.14 / "Good on Hot Cakes," 1907.

Meanwhile, Bedford and the CPRC became very proactive in throwing their weight against the USDA's Standards Committee's decision to no longer permit "corn syrup" to refer to corn and cane blends, aggressively filing briefs and requesting hearings

to register their protests.¹⁰⁰⁰ They did so because activity within the USDA regarding the Pure Food and Drug Act's enforcement exacerbated the worries Bedford's company held about federal regulation and the interstate trade of their product. At the end of 1906, Wiley, as Chief of the Bureau of Chemistry, asserted that whiskey blends and compounds were not to be labeled as whiskey at all. His publications led to distillery inspections, hearings before the Secretary of Agriculture, and to investigations on the part of President Roosevelt and the Attorney General. They also led to mounting tensions within the Department of Agriculture and the creation of a new three-man advisory board, the Board of Food and Drugs Inspection.¹⁰⁰¹ From the CPRC's perspective, these activities were worrisome because Karo, like whiskey, was a blended product. And if whiskey blends concerned Wiley, it was likely that their corn-cane syrup might also offend his reforming sensibilities. Luckily for the CPRC, however, the Attorney General eventually overruled Wiley's definition of whiskey by stating that the Pure Food and Drugs Act would "be best observed by giving to such articles names readily understood and conveying definite and familiar ideas to the general public, although such names may be inaccurate in the view of a chemist."¹⁰⁰²

In September of 1907, in the wake of the whiskey decision, the CPRC spoke before the Department's newly created Board of Food and Drugs Inspection. Though the CPRC contended that "corn syrup" told the consumer precisely what the product was and the plant from which it derived, Wiley—the Board's chair—argued otherwise, asserting that true corn syrup was in fact the juice expressed from the stalk of the plant, much as

¹⁰⁰⁰ Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 2; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

¹⁰⁰¹ While the Attorney General agreed with Wiley's finding regarding whiskey, President Roosevelt, with whom Secretary Wilson sided, did not. These differences exacerbated a growing rift between Wiley and Wilson. In part because of the Wilson-Wiley tensions, Wilson hired Frederick L. Dunlap as the department's new associate chemist. Wiley and the employees he supervised saw Dunlap as a kind of spy for Wilson. To Wiley's chagrin, he and Dunlap, along with another Wiley nemesis named George McCabe, were named the three members of Wilson's new Board of Food and Drug Inspection. Though the Act did not call for the creation of such a Board, Wilson believed it within his power to do so. Wiley, in turn, believed that the decks were stacked against him. Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 201-205.

¹⁰⁰² Company, "Copies of Opinions of Chemists and Others on the Meaning of the Word "Syrup" And the Use of the Term "Corn Syrup" Under The "Food & Drugs Act" Of 1906 Presented to the Hon. James Wilson Secretary of Agriculture December, 1907," 52.

earlier research in the 1840s and 1870s had produced.¹⁰⁰³ Not surprisingly, the Board upheld the 1906 decision of the Department's Standards Committee when it rendered its verdict in November of 1907. This time, though, the Board not only reiterated that "corn syrup is not a satisfactory synonym for glucose when mixed with sugar cane products," but under Wiley's leadership, it added that "the term "Corn Syrup" is not a satisfactory synonym for glucose" at all. In other words, Wiley sought to require the CPRC and other refiners to label all of their corn syrup products, whether or not they were sweetened with cane, as "glucose."¹⁰⁰⁴

Given their belief in consumers' ongoing aversion to "glucose," the CPRC appealed for redress after Secretary Wilson approved the decision. In a barrage of letters, additional reports, and two days of testimony before the Secretary of Agriculture during early December, 1907, the CPRC and its affiliates made their case for labeling their corn-cane blend for the table not as glucose but as corn syrup. Grocers and state senators pleaded with the Secretary of Agriculture for the CPRC's cause, arguing that "the general public often conflict the word glucose with glue" and that the "general public" understood that corn syrup was a syrup because "[i]t looks like it – it tastes like it – it is a syrup."¹⁰⁰⁵ As the hearings drew near, the CPRC even mobilized twenty-three chemists from leading academic and professional institutions to submit their opinions that the product was wholesome, that the chemical composition of corn syrup did not differ much from cane or other syrups, and that using "syrup" to describe a cane product alone would

¹⁰⁰³ Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 205. For work in the 1870s, see F.L. Stewart, *Sugar Made from Maize and Sorghum: A New Discovery* (Washington, DC: The Republic Company, 1878). Apparently, on page 240 of the USDA's 1877 Yearbook of Agriculture, Stewart had written that deriving sugar from the corn ear would be problematic. "Indian corn has recently obtained some celebrity as a sugar plant in its capacity to furnish, from the starch of the grain, by a well known transposition, the miserable starch sugar to which, by an amazing stretch of courtesy, the name "corn sugar" has been applied. The misnomer should deceive no one." See F.L. Dunlap, "Brief on the Labeling of Corn Products" from the Board of Food & Drug Inspection to the Secretary of Agriculture, December, 1907; GC, 7, Corn Products, 1907-1908; RG 16; NACP.

¹⁰⁰⁴ This was published as Food Inspection Decision No. 83. See Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 2-3; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

¹⁰⁰⁵ F.B. Connolly, of the California Retail Grocers and Merchants Association, to the Secretary of Agriculture, November 22, 1907 and Senator Alfred J. Gilchrist to the Secretary of Agriculture, November 25, 1907, in Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 151-2; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

cause public confusion. The company also reminded the Secretary of the Attorney General's recent opinion on "The Labeling of Whiskey."¹⁰⁰⁶

Speaking before the Secretary of Agriculture on December 5th and 6th, representatives from the CPRC spoke about their choices to market Karo as "Corn Syrup" rather than as glucose and—as they had more than two decades before—emphasized the profits that their industry was bringing to the American farmer. One Dr. Wagner, who had been employed by the CPRC in its early years, emphasized that the term glucose carried particular "prejudice with the housewife." He relayed the story that "A gentleman... had asked his wife if she knew that she was buying glucose when she bought corn syrup. She replied that she did not, and if such was the case she would use no more of it." Given the extent of consumer prejudice against glucose, other CPRC employees testified that "corn syrup" had been selected as "adequately describing the product...and as conveying to the public in the shortest possible way what the article was and what it was derived from—and leaving them to judge whether it was wholesome or desirable or not." The CPRC's Bedford was more frank with the Secretary, stating that selling Karo as "glucose" would "kill our business." What was more, Bedford reiterated, his company amounted for half of the purchases of "cash corn sold in this country." And while far more corn was fed to hogs than was sold on the market, he insisted that the CPRC's purchases brought higher corn prices to the farmer.¹⁰⁰⁷ The implications he related to the Secretary, therefore, were that inhibiting the CPRC's ability to sell glucose-cane syrup blends for the table as corn syrup would disgust the housewife and decrease their sales, which in turn would diminish the company's consumption of cash corn. This, he intimated, would eventually cause damage to the farmer. By extension, corn farmers' potential impoverishment raised the specter of a resurgent farm unrest and political tumult. Bedford's solicitude for the farmer in 1907, therefore, built upon the glucose industry's earlier rhetoric. It would also reappear during the corn sugar question some two decades thereafter.

¹⁰⁰⁶ Company, "Copies of Opinions of Chemists and Others on the Meaning of the Word "Syrup" And the Use of the Term "Corn Syrup" Under The "Food & Drugs Act" Of 1906 Presented to the Hon. James Wilson Secretary of Agriculture December, 1907," 52.

¹⁰⁰⁷ Harvey W. Wiley, "Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose," December 31, 1907, 139-140; 104, 105, 143; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

Following the corn syrup hearings, Wilson requested that each member of the Board of Food and Drugs Inspection submit their independent opinions as to whether “the term “corn syrup” could be used synonymously for “glucose” without violating the Food and Drugs Act.”¹⁰⁰⁸ One historian has argued that due to CPRC pressure, namely on the part of Bedford in expressing a great deal of concern about the savings that women had invested in his company, Wiley’s peers on the board, Frederick Dunlap and George McCabe, reversed the opinions they had rendered weeks before.¹⁰⁰⁹ While the likelihood that Bedford had lobbied the men in this way is not out of the question, Dunlap’s own brief suggests that he also wrestled with popular usage of the term—turning to the nation’s leading female chemist for her verdict—before concluding (as the CPRC contended) that a product labeled as corn syrup would be unlikely to defraud the consumer.¹⁰¹⁰ Ever the reforming contrarian, however, Wiley stayed true to his original claim and submitted a 172 page brief to Secretary Wilson that emphatically contradicted each of the CPRC’s pleas and asserted that because glucose was not made from “the juice of sugar producing plants,” it “could not possibly, with any ethical right, be known as “corn syrup.””¹⁰¹¹ Indeed, he proposed, the CPRC should rightfully label its product not simply “Corn syrup with Cane Flavor” but as the more accurate mouthful, “Glucose made from corn starch by the action of muriatic acid. We desire to sell it to the consumer under the term “corn syrup”, because if we try to sell it under the term “glucose,[”] he won’t buy it.”¹⁰¹²

¹⁰⁰⁸ F.L. Dunlap, “Brief on the Labeling of Corn Products” from the Board of Food & Drug Inspection to the Secretary of Agriculture, December, 1907; GC, 7, Corn Products, 1907-1908; RG 16; NACP.

¹⁰⁰⁹ Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 206, 309.

¹⁰¹⁰ F.L. Dunlap, “Brief on the Labeling of Corn Products” from the Board of Food & Drug Inspection to the Secretary of Agriculture, December, 1907; GC, 7, Corn Products, 1907-1908; RG 16; NACP. Here he cited Ellen H. Richards, the pioneering instructor in sanitary chemistry at MIT and author of *Food Materials and their Adulteration*. In her 1906 edition, Richards wrote that she originally published the book two decades earlier “to arouse women providers for their families to the need of a study of the materials they purchased,” and that at present, the need for women to be aware of manufactured goods was “tenfold more important.” To the female consumers she was trying to inform, Richards explained that while glucose was “healthful, cheap, and pure,” and was legitimately used in confectionery, it was a common adulterant of honey and maple syrup. At the same time, she added (and this is what Dunlap shared with the Secretary), “The ordinary table syrup is chiefly glucose or corn syrup.” Thus though a chemist like Wiley, she was far more realistic about its naming conventions. See Ellen H. Richards, *Food Materials and Their Adulteration*, 3rd ed. (Boston: Whitcomb & Barrows, 1906), iii, 91-98.

¹⁰¹¹ Harvey W. Wiley to James Wilson, December 11, 1907; GC, 7, Corn Products, 1907-1908; RG 16; NACP.

¹⁰¹² Harvey W. Wiley, “Brief of H.W. Wiley, December 31, 1907: Corn Syrup as a Synonym for Glucose,” December 31, 1907, 96; GC, 7, Corn Syrup vs. Glucose; RG 16; NACP.

In February of 1908, the Secretaries of Agriculture, Treasury and Commerce officially resolved the question over how to label corn syrup, or glucose, mixed with refiners' syrup for table use. To the delight of Bedford's company, the three overruled the opinion submitted by Wiley's Board in November and agreed that "it is lawful to label this syrup as "corn syrup," and if to the corn syrup there is added a small percentage of refiners' syrup, a product of the cane, the mixture, in our judgment, is not misbranded if labeled "corn syrup with cane flavor.""¹⁰¹³ While E.T. Bedford thanked the Secretary of Agriculture for the ways the decision would "aid our business," others saw it as the tip of a newly fragile Pure Food iceberg. The editor of *The American Grocer*, for instance, howled that the decision was only made to appease "the producers of corn [as] a political power" and wrenched "the fundamental—the vital—principle of the National Pure Food law." It "will do much to nullify" the act, he admonished.¹⁰¹⁴

SWEETENING CONSUMERS ON KARO IN THE EARLY 20TH CENTURY

In the wake of protests by the Pure Food Act's defenders who believed that the 1908 corn syrup decision weakened the 1906 legislation, the CPRC scaled up its efforts to commandeer the market for mixed corn-cane syrups, diminish residual reticence about the nature of its products, and establish brand loyalty among grocers and female consumers whom they believed were in charge of household grocery purchases. Between 1906 and 1910, the CPRC offered grocers or dealers who agreed to exclusively carry

¹⁰¹³ USDA Office of the Secretary Board of Food and Drug Inspection, "Food Inspection Decision 87: Labeling of Corn Syrup," February 13, 1908; GC, 7, Corn Products, 1907 – 1908; NACP.

¹⁰¹⁴ For Bedford, see E.T. Bedford (ETB) to James Wilson, February 15, 1908; GC, GC, 7, Corn Products, 1907 – 1908; NACP. For grocer, see "An Absurd Ruling on Labeling of Corn Syrup," *American Grocer* (1908), enclosed in F.N. Barret to James Wilson, March 13, 1908; GC, 8, Corn Syrup, 1907-1908; RG 16; NACP. See also Wiley, *Harvey W. Wiley: An Autobiography*, 271. While the CPRC's lobbying played no small part in rendering this opinion, other evidence suggests that the secretaries' decisions may have actually rested on consumption practices in President Roosevelt's own family. Wiley, recalling a conversation with Secretary Wilson, later reported that the President's son, Archie (who, born in 1894, would have been an impressionable 13 years old at the time), had tried corn syrup while traveling in Virginia. After learning that it tasted good, the President informed his Secretaries, "If the makers want to call this product 'corn syrup,' why, that's the name by which it shall be known." As Wilson later recalled, "The President had a phial of this sirup" in a meeting at the White House, "and had his opinion with regard to the people that did not regard that as a sirup." Because of this, Wilson intimated, "the three Secretaries... were convinced the President had logically selected the correct name." See Oscar E. Anderson, *The Health of a Nation: Harvey W. Wiley and the Fight for Pure Food*, 206. For Archie's biographical information, see Theodore Roosevelt Association, "Archie Roosevelt," <http://www.theodoreroosevelt.org/life/familytree/Archie.htm>.

their products ten-cent rebates on every 100 pounds of starch and syrup. Those who ordered from them were assured that they could purchase CPRC products at lower prices if the goods were valued less at delivery than at the time of ordering. Bedford's corporation also offered jobbers and retailers two bonus cases of mixed syrups for every five that they ordered, all, as one journalist later wrote, "to the undoing of independents."¹⁰¹⁵ To capture consumers' loyalty between 1906 and 1912, the CPRC spent more than \$2,000,000 in advertising Karo and their other refined corn products, cut prices below cost, and adjusted the prices of their cane-glucose blends to match those of unmixed glucose, hoping to eliminate competitors' profits.¹⁰¹⁶ If Perry Holden's assertion of widespread consumer familiarity with Karo by 1912 is any indication, the CPRC's aggressive trade practices, along with their cleverly marketed cookbooks and highly gendered national print advertisements, excelled at generating a base of loyal consumers.

In 1908, shortly after the Secretaries of Treasury, Commerce, and Revenue gave their blessing to defining corn syrup as a syrup (but still smarting from the Pure Food Act's labeling requirements requiring Karo to be known as a corn and cane blend), the company directed some of its generous advertising budget toward the publication of Helen Armstrong and Janet M. Hill's *Karo recipes for cooking and candy making*. Their purpose in releasing the cookbook was twofold: first, the company sought to capitalize upon Hill's affiliation with the well-known Boston Cooking School in order to generate broader interest in their product. Her name, combined with the school's recipes for Karo-inspired confectionery, comprised powerful evidence as to the brand's virtues. Second, given that the book's cover art conspicuously featured the CPRC's new "Karo Corn Syrup with Cane Flavor" label, it is likely that the company commissioned the book to validate and circulate their labels' new appearances in light of the Pure Food Act's labeling requirements. Indeed, whereas Armstrong's 1903 *Karo in the Kitchen* had not discussed the ways in which corn syrup was made, the new publication made some attempts at transparency: "By an elaborate process of refining," Armstrong and Hill assured would-be consumers in 1908, "all the impurities of the corn are removed and the

¹⁰¹⁵"Suit to Dissolve Corn Products Co.," *New York Times*, March 2, 1913, 8.

¹⁰¹⁶Peckham, "Economics and Invention: A Technological History of the Corn Refining Industry of the United States," 316-318.

very “heart” of the kernel of corn is isolated in its purest form. In the succeeding steps of the process of manufacture, equally as scrutinous and sanitary, this heart is changed into a thick sweet liquid... To add flavor, the corn syrup receives an addition of the highest grade of carefully prepared Refiners’ Syrup—a product of the cane—hence the name “Karo Corn Syrup with Cane Flavor.”¹⁰¹⁷

While establishing interest and trust among consumers were two of the company’s important goals, the CPRC sought to generate demand in other ways. A large chunk of the company’s generous advertising budget went towards its eye-catching national print campaign. Launched in the fall of 1909, the new advertising blitz did not focus on the product’s corn origins. Instead, much like the recent Armstrong-Hill cookbook, this campaign seems to have been designed to familiarize consumers with the product’s new label, as the company included images of their syrup tins alongside the text of each advertisement. Second, the CPRC directed its major efforts at entrenching its appeal among female consumers. They sought to accomplish this by accentuating a woman’s use of their product within her family as a signpost of her devotion to the ethos of modern motherhood.¹⁰¹⁸ **[Images 5.15-5.16]** While one ad depicting a well-dressed father figure happily cutting into his Karo-laden griddle cakes encouraged women to serve the syrup to their husbands, another featured a woman serving Karo alongside a platter of griddle cakes and biscuits with the promise that the syrup “Agrees with everybody” in the household.¹⁰¹⁹ In a similar vein, an advertisement printed in *Harper’s*, *McClure’s*, and *The Youth’s Companion* featured a young boy joyfully pouring “Karo Corn Syrup with Cane Flavor” over a stack of pancakes. While no mother figure is present, advertising copy informs the consumer that, as a mother, “you can give children

¹⁰¹⁷ Helen Armstrong and Janet M. Hill, *Karo Recipes for Cooking and Candy Making* (Davenport, IA: Corn Products Refining Co., 1908), 3; Culinary ephemera: fruits, vegetables, and nuts, Box 55, Item 6, CLEM.

¹⁰¹⁸ This was similar to the gendered marketing deployed for new convenience products such as Campbell’s soups. On soups, see Katherine Parkin, “Campbell’s Soup and the Long Shelf Life of Traditional Gender Roles,” in *Kitchen Culture in America: Popular Representations of Food, Gender, and Race*, ed. Sherrie Inness (Philadelphia: University of Pennsylvania Press, 2001), 51-52. By contrast, different methods were used for marketing products of supposedly idle feminine luxury. On the gendered marketing of bonbons, see Jane Dusselier, “Bonbons, Lemon Drops, and Oh Henry! Bars: Candy, Consumer Culture and the Construction of Gender, 1895-1920,” in *Kitchen Culture in America: Popular Representations of Food, Gender, and Race*, ed. Sherrie Inness (Philadelphia: University of Pennsylvania Press, 2001), 14, 28-29.

¹⁰¹⁹ “Give Father Karo with His Cakes,” *Harper’s Bazaar*, March 1910, 207; “Serve Karo on the Table,” *Harper’s Bazaar*, September 1910, 565.

all [the Karo] they want.”¹⁰²⁰ Other ads reiterated the theme of a women’s use of Karo as a marker of her familial devotion: they presented images of women spreading the product on bread for a young boy, pouring Karo into a kettle of the family’s beans while cooking in the kitchen, using the product to make candies, packing it in a picnic basket, and using it while canning fruits for her household’s later enjoyment.¹⁰²¹ The company’s advertisements even groomed future mothers to become Karo consumers: ads featuring adolescent girls showed them spreading Karo in a pie tin, pulling taffy, and displaying baked goods made with Karo.¹⁰²²



Image 5.15 / “Serve Karo on the Table,” 1910. **Image 5.16** / “Come Girls...have a Taffy Pull,” 1909.

Motherly devotion to family was not the only theme that the CPRC emphasized as they sought to sweeten female consumers on their re-labeled product.¹⁰²³ As Katherine Parkin has argued, the use of prepared foods in the twentieth century also served as markers of housewives’ modernity.¹⁰²⁴ The CPRC emphasized this ideal in their next cookbook, the *Corn Products Cook Book* authored by Emma Churchman Hewitt, which they released in late 1910 so as to coincide with production of their new red-label Karo

¹⁰²⁰“Here’s the Syrup for Griddle Cakes!,” *McClure’s Magazine*, October 1909, 28.

¹⁰²¹ “Children Love Bread and Karo,” *Harper’s Bazaar*, November 1909, 1216; “For Home Baked Beans & Boston Brown Bread,” *Harper’s Bazaar*, May 1910, 361; “One Thing the Wise College Girl Knows,” *Harper’s Bazaar*, June 1910, 394; “For the Picnic Basket,” *Harper’s Bazaar*, July 1910, 459; “In Preserving--Try Karo This Season,” *Harper’s Bazaar*, August 1910, 519.

¹⁰²² “Christmas Candy,” *The Youth’s Companion*, December 9 1909, 648; “Come Girls--Get Together and Have a Taffy Pull,” *Outlook*, December 25 1909, 1021; “Better Than Honey on Hot Biscuit,” *Harper’s Bazaar*, February 1910, 141.

¹⁰²³ By the middle of 1910, ads no longer promoted the product as Karo Corn Syrup with Cane Flavor, and images of the can no longer included the long product title. Instead, they simply alluded to “Karo” while leaving the corn syrup descriptive out of the equation. Although I do not yet know why that shift occurred, I expect that it was a response to a court case or a USDA standards ruling.

¹⁰²⁴ Parkin, “Campbell’s Soup and the Long Shelf Life of Traditional Gender Roles.”

(Crystal White) syrup.¹⁰²⁵ In Hewitt's book, the company invited modern-minded consumers "to inspect our Refineries" for themselves (as opposed to simply letting home economists tell them of its cleanliness) to see where "Pure Food Products" made from "yellow kernels of corn" were "manufactured under the most hygienic and sanitary conditions," never "touched by human hands."¹⁰²⁶

In its imagery, as well, this text reiterated Karo's potential to signal the consumer's modernity. On the cover, for example, the CPRC featured its first adaptation of the "corned Indian" used in fertilizer imagery in the 1880s, seed company promotions around the turn of the century, and the "corn show mermaid" that had figured so prominently in Omaha's recent National Corn Show.¹⁰²⁷ [Images 5.17-5.20] Much as Longfellow's *Hiawatha* had depicted passive modes of Native corn production in relation to the modernity of land-hungry western settlers, much like Sioux Cityans sought to use performances by Winnebago Indians and images of "Mondamin" on their palace walls so as to rationalize their city's modernizing impulses during the late 1880s, and much as Sarah Rorer began her Columbian corn souvenir book with Frank Cushing's Zuni recipes before turning to recipes calling for modern ingredients, the CPRC appropriated an aesthetic genealogy of the immobile Indian-as-corn figure so that consumers might construct their own consumption-defined modernity in relation to a timeless Indian otherness. Refined corn products sold by the CPRC, after all, were not only newer products than traditional forms of ground meal but also served as modern replacements of traditional commodities like sugar, honey and molasses. Marion Harland testified that

¹⁰²⁵ Emma Churchman Hewitt, *Corn Products Cook Book* (New York: Corn Products Refining Company, 1910); "Ready at Your Grocer's--the New Karo (Extra Quality)--with the Red Label," *Harper's Bazaar*, November 1910, 672. Hewitt's renown came from her former position at the *Ladies' Home Journal*. The 1910 cookbook for the CPRC, which may have been a second edition, is held in Vertical Files: SF Food Conservation #1, at the Schlesinger Library, Cambridge, Massachusetts. The Clements Library in Ann Arbor, Michigan holds two other versions of Hewitt's *Corn Products Cook Book* published at about this time. See holdings in Culinary ephemera: fruits, vegetables, and nuts, Box 55, Items 7 and 8. The CPRC was not the first corn brand to deploy Hewitt's talent. In 1909, she published books for the Kingsford and National Starch Company brands. It is my understanding, however, that the CPRC owned or had large stakes in these two brands at that point. The Schlesinger Library holds (possibly in their culinary pamphlet collection, 1872-2005), Emma Churchman Hewitt, *Duryeas' Corn Starch Cook Book* (New York: National Starch Company, 1910). And the Archives at the Pasadena Historical Museum holds, in their Dorothy Chancellor Collection, 1885-1985, Box 9, Emma Churchman Hewitt, *What a Cook Ought to Know About Corn Starch* (Oswego: T. Kingsford & Son and National Starch Co., 1909).

¹⁰²⁶ Hewitt, *Corn Products Cook Book*, 1.

¹⁰²⁷ The corn maiden figure still appears on the Argo brand cornstarch sold today. She was redrawn in 1964 and again in 1992 as a "slimmer" maiden. See http://www.argostarch.com/about_us.html, March 11, 2010.

Karo “is as clear and as sweet as honey and richer in consistency, without the cloying quality that makes honey distasteful to some and unwholesome if eaten freely.”¹⁰²⁸



Image 5.17 / Grown With...High Grade Bone Fertilizers, 1885. **Image 5.18** / “A Corned Indian,” n.d.



Image 5.19 / Cover, *National Corn Exposition...1908*. **Image 5.20** / “Corn Products Cook Book,” 1910.

¹⁰²⁸ Hewitt, *Corn Products Cook Book*.

Thus in roughly half a decade after replacing its corporate forerunner, the CPRC responded to the requirements of the Pure Food Act, lobbied for interpretations of the Act conducive to its business goals, made convincing claims as to how its industry benefited the American farmer, and transformed consumer reticence about glucose into extensive brand loyalty for its Karo syrup. In 1910, they puffed that they had sold “Sixty Million Cans...in '09 [and that] Sales [were] increasing over last year at the rate of thirty thousand cans a day.”¹⁰²⁹ From a strategic perspective, these sales mattered because the more familiar consumers were with company’s refined corn products at home, the less they ought to mind the inclusion of other refined products in manufactured foods. And although its home goods like Karo corn syrup, Argo corn starch, and eventually Mazola corn oil formed a trio of marquee products, the syrups and other corn byproducts the CPRC sold to other companies formed a tremendous portion of the company’s business. Indeed, the *Wall Street Journal* forecasted in 1915, “the company for a considerable time past has been spending large sums to familiarize the public with its Karo brand, and develop “good will” which may be a very important asset in the future.”¹⁰³⁰

CASHING IN ON CONSUMER GOODWILL AND FARMER NECESSITY

However successful Bedford’s campaigns among jobbers, grocers, and consumers may have been, he recognized that the USDA’s new regulatory powers had great potential to undo his company’s efforts. Meanwhile, Wiley, as the USDA’s key regulator, was struggling to retain his power in relation to departmental personnel shifts. Thus much was at stake between 1911 and 1912—personally, for corporations, and for the government—as Bedford and Wiley continued to battle over the place of corn syrup in molasses, mince-meat pies, maraschino cherries, almond pastes, and beer.¹⁰³¹ Although enforcement of the Pure Food Act had fallen, more or less, to Wiley as Chief of the Bureau of Chemistry and as Chair of the Board of Food and Drugs Inspection, and to activists with the National Consumers’ League like Alice Lakey, consumers’ growing

¹⁰²⁹ "Sixty Million Cans Sold in '09," *Harper's Bazaar*, October 1910, 618.

¹⁰³⁰ "Broad Street Gossip," *Wall Street Journal*, March 15, 1915, 2.

¹⁰³¹ Memo Re: ETB to Office of the Secretary, July 21, 1911; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP; ETB to James Wilson, November 13, 1911; GC, 32, Corn Syrup - Corporation, 1911 – 1912, RG 16; NACP; ETB to William Judson, November 29, 1911; GC, 32, Corn Syrup - Corporation, 1911 – 1912; RG 16; NACP; ETB to James Wilson, August 15, 1912 and James Wilson to ETB, August 16, 1912; GC, 46, Corn Syrup, 1912 – 1913; RG 16; NACP.

familiarity with the CPRC's refined corn products at home enabled Bedford's company to exert pressure against Wiley's attempts to define foods in ways that would have hindered industrial uses of the company's sweet products.¹⁰³²

To understand the heart of these institutions' contentious interpretations of the Act, public and private discourses about corn syrup in mincemeat are instructive. Like other industrial users of corn syrup, mincemeat makers used the product not so much to sweeten but to maintain the product's color and moisture.¹⁰³³ Although ninety percent of the nation's mincemeat manufacturers agreed that the use of corn syrup and cornstarch had become "normal" in their line of business, in 1911, Wiley's board ruled that corn syrup—but not cane products like molasses—would have to be declared on mincemeat labels, so as to not deceive the consumer.¹⁰³⁴ According to Wiley, his "principal objection to glucose" remained the practice of "feeding it to people who do not know that they are eating it."¹⁰³⁵ From Bedford's perspective, his company and others like it provided consumers with "one of the most wholesome, economic food products."¹⁰³⁶ But both "in season and out of season," Bedford believed, Wiley was single-mindedly targeting the CPRC so as to protest the 1908 corn syrup-as-glucose decision that had been issued over his objections.¹⁰³⁷ Since that time, Bedford complained, Wiley's piecemeal

¹⁰³² Underfunding, as Lorine Swainston Goodwin has explained, crippled Wiley's Bureau after the passage of the Pure Food Act. Consumer activists, led by Lakey, took on the lion's share of informing consumers about how they might interpret the new Act. Goodwin identified Lakey as "the most outspoken and decisive member of the [General] Federation [of Women's Clubs] pure, food, drink, and drug leaders" and as the woman who united the National Consumers' League with the GFWC. Before and after the Act's passage, she regularly communicated with Wiley on matters of pure food. In fact, her activism was crucial in securing passage of the 1906 Pure Food Act, and she remained a key player in pure food debates through the 1930s. On funding issues and the NCL stepping into the USDA's enforcement gap, see Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914*, 267-271. On Lakey, see Goodwin, *The Pure Food, Drink, and Drug Crusades, 1879-1914*, 146-147, 161-142, 164-146, 260-141, 268, 283. For a very rare image of her alongside Wiley, see Wiley, *Harvey W. Wiley: An Autobiography*, 293a.

¹⁰³³ Committee of Manufacturers of Corn Products to Jury of Food Commissioners, November 29, 1911; GC, 32, Corn Syrup – Corporation, 1911-1912; RG 16; NACP. Henry Heide, a New York candymaker, also used corn syrup "to improve the quality of his [almond] paste." See ETB to William Judson, November 29, 1911; GC, 32, Corn Syrup - Corporation, 1911 – 1912; RG 16; NACP.

¹⁰³⁴ Committee of Manufacturers of Corn Products to Jury of Food Commissioners, November 29, 1911; GC, 32, Corn-Syrup-Corporation, 1911-1912; RG 16, NACP; "Mince Meat Makers Protest to Dr. Wiley," *Journal of Commerce and Commercial Bulletin*, December 11, 1911; ETB to William Judson, November 29 and December 4, 1911; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰³⁵ Harvey W. Wiley to Luin B. Switzer, March 7, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰³⁶ ETB to James Wilson, October 19, 1911; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰³⁷ ETB to James Wilson, October 19, 1911; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP; Memo Re: "ETB to James Wilson, August 29, 1911," August 31, 1911; GC, 32, Corn Syrup-Corporation,

efforts to force makers of manufactured foods to label corn syrup as an ingredient in their foods had prompted industrial consumers to come to be “afraid to use our products.” And now that mincemeat makers were enacting wholesale formula changes to avoid having to declare the use of glucose on their labels, any extension of business was becoming “impossible.”¹⁰³⁸ Seeking redress from Secretary of Agriculture James Wilson, Bedford described his company as “the Jonah that Dr. Wiley is after.”¹⁰³⁹ But Bedford was not alone in his protests. Chasing Jonah had other implications, business and farming interests began to assert, and they were on Jonah’s side. The labeling requirements that Wiley sought to impose on manufactured foods were worrisome for these organizations. The Toledo Produce Exchange, the Merchant’s Exchange of St. Louis, the Illinois Manufacturers Association, and national and local branches of the Chamber of Commerce all argued that Wiley’s board was discriminating against the production of an agricultural commodity that would otherwise give work to farmers and manufacturers and provide the public with cheap, nutritious food.¹⁰⁴⁰

Given that Wiley’s pursuit of the CPRC lasted for decades, the CPRC may have more fittingly served as the Moby Dick to Wiley’s Ahab. For even after Wiley resigned from the Bureau of Chemistry to work at *Good Housekeeping Magazine*, he remained fixated upon the CPRC’s products and its lobbying efforts. In March of 1912, he informed Bedford that the influential ladies’ magazine would not accept CPRC advertisements in the future.¹⁰⁴¹ Bedford, for his part, took special care to warn Secretary Wilson of the influence Wiley still held among those loyal to him in the department.¹⁰⁴² Wiley perseverated on the dangers of glucose and CPRC malfeasance until his death, as editorials released in the 1920s and recollections included in his autobiography make

1911-1912; RG 16; NACP; ETB to William Judson, December 4, 1911; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰³⁸ ETB to James Wilson, October 16, November 13, and December 11, 1911 and January 10, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰³⁹ ETB to James Wilson, December 11, 1911; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰⁴⁰ A. Gassaway to Charles Nagel, January 5, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP; Christian Bernet and Eugene Smith to James Wilson, January 17, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP; J.M. Glenn to James Wilson, January 16, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP; ETB to James Wilson, January 25, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP; Summary of Cleveland, Ohio Chamber of Commerce to James Wilson, April 15, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰⁴¹ ETB to James Wilson, March 27, 1912; GC, 32, Corn Syrup-Corporation, 1911-1912; RG 16; NACP.

¹⁰⁴² ETB to James Wilson, August 15, 1912; GC, 46, Corn Syrup, 1912-1913; RG 16, NACP.

clear.¹⁰⁴³ And as I explain below, his widow, Anna K. Wiley, continued to carry the “mantle” of Wiley’s anti-glucose, anti-CPRC legacy after his death.¹⁰⁴⁴

But in spite of both Wileys’ efforts, the CPRC entrenched its products as household necessities among American consumers in the years following the 1908 corn syrup decision, largely due to their persuasive advertisements and aggressive rebate practices. Retailers agreed that consumers responded to the CPRC’s promotions of Karo in droves. Presented as used “in millions of homes,” by “the best domestic science schools,” and as the product of choice for the “careful mother,” the “busy,” “critical,” and “experienced housewife,” and “discriminating housekeepers and eminent chefs” alike, the product quickly dominated home syrup markets.¹⁰⁴⁵ While the “Acme” corn syrup brand retailed for cheaper prices than Karo at the United Wholesale Grocery Company, for instance, a company representative stated that it sold “four times as much Karo.” Other grocers agreed that Karo “has been made better known” than other brands, that ““Karo” has steadily grown in favor since it was put upon the market,” and that “when the Corn Products Refining Company offers what it calls “free deals” it is all “Karo.””¹⁰⁴⁶ And though the corporation battled an antitrust lawsuit brought by the government in 1913 and a dearth of corn available for grinding during World War I, demand for their

¹⁰⁴³ Wiley, *Harvey W. Wiley: An Autobiography*, 269-273, 301-305; Harvey W. Wiley, “Dextrose, Which It Is Proposed to Mix with Sugar, Not Real Corn Sugar but a Product of Starch,” *The Washington Post*, April 11, 1926, S2; “Dr. Wiley Assails Corn Sugar Bill,” *New York Times*, April 28, 1926, 19.; Albert A. Smith to R.I. Bentley, April 20, 1926; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP.

¹⁰⁴⁴ For Anna K. Wiley’s lobbying against corn sugar, see Smith & Hulse, *Hearing before Honorable Arthur M. Hyde, Secretary of Agriculture. In the Matter of Regulations Concerning the Labeling of Food Products Containing Corn Sugar, July 25, 1930*; GC, 1555, Sugar [Hearings]; RG 16; NACP; “Corn Sugar Battle Rages for 3 Hours before Hyde,” *Chicago Daily Tribune*, July 26, 1930.; Anna K. Wiley to the President, July 31, 1930; GC, 1555, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP; Cora DeForest Grant, “Mrs. Wiley Takes up Husband’s Mantle,” *The Washington Post*, October 19, 1930.; Joseph S. Davis, *The Corn Sugar Question (Revised)*. November 25, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP.

¹⁰⁴⁵ “A Free Book About Preserving Every Housewife Should Have,” *Chicago Daily Tribune*, July 8, 1919, 7; “Use Corn Syrup in Preserving,” *Los Angeles Times*, August 6, 1915; “Timely Advice to Mothers,” *Los Angeles Times*, April 8, 1915, 13; “Practical Culinary Hints,” *Los Angeles Times*, June 4, 1915, 14; “To the Woman Who “Never Has Any Luck” Putting up Fruit and Berries,” *Chicago Daily Tribune*, July 10, 1915, 10; “Delicious Brown Bread,” *Los Angeles Times*, November 26, 1915, 115.

¹⁰⁴⁶ The anti-trust case that the United States pressed against the CPRC beginning in 1913 is a key source of evidence of the CPRC’s methods and success in familiarizing consumers with their brands. See O’Brien, Boardman & Platt, Calhoun, Lyford & Sheean, Attorneys for CPRC & others, *The United States of America Vs. Corn Products Refining Company and Others, in Equity*, April 9 1913. For additional grocers’ testimonies, see “Doesn’t Earn Much Money,” *Los Angeles Times*, March 12, 1915, III.

products continued unabated during the war.¹⁰⁴⁷ Not surprisingly, when the CPRC itself promoted Karo as a means to save sugar [Image 5.21] and when domestic advisors like Elizabeth O. Hiller called for the use of Karo and other corn products as a means to enable housewives to help in war efforts, women like the Ladies of Litchfield, Connecticut echoed with their own Karo-laden, war-winning recipes.¹⁰⁴⁸

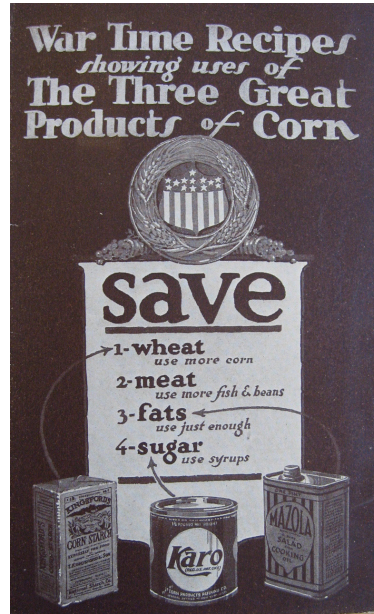


Image 5.21 / "War Time Recipes showing uses of The Three Great Products of Corn," 1917-1918.

After the war, the CPRC carried their momentum forward among consumers by undercutting expensive sugar prices, expanding into British and German markets, and introducing new maple versions of their syrup.¹⁰⁴⁹ They also enlisted the "hearty

¹⁰⁴⁷ The court case, *The United States of America vs. Corn Products Refining Company and others*, in Equity, No. E10-122, was filed in the District Court of the United States for the Southern District of New York in 1913. It played out before Judge Lerner Hand for three years, when the CPRC's holdings were somewhat diminished. For wartime operations, see "Corn Scarcity Brings Close of Corn Product," *Chicago Daily Tribune*, September 11, 1917, 18; "Corn Products Earned More Than 20% in 1917," *Wall Street Journal*, January 5, 1918, 6; "The Stock Market," *Wall Street Journal*, November 2, 1918, 4.

¹⁰⁴⁸ Elizabeth O. Hiller, *The Corn Cook Book War Edition* (Chicago: P.F. Volland Company, 1918), 5, 32. Hiller's text was a wartime revision of her 1907 *Corn Cook Book*. A copy of the 1907 text exists in the Library of Congress. Google has digitized Harvard's copy of the 1918 volume. The Clements Library in Ann Arbor, Michigan holds *War Recipes: Hooverized Directions for Practical Cooking--Tried and Publicly Demonstrated by the Ladies of Litchfield, Connecticut*, (Litchfield, Conn.: Enquirer Print, 1918), 12-13. The Schlesinger Library holds at least two additional examples of CPRC promotions of Karo as a means to win the war: *War Time Recipes Showing Uses of the Three Great Products of Corn*, (New York: Corn Products Refining Company, 191[8]). See also *Timely Recipes*, (191[8]). Both in 191[8]; Vertical Files, SF Food Conservation #1, SCHLES.

¹⁰⁴⁹ "Ask for Karo Forget Sugar Worries," *Chicago Daily Tribune*, November 18, 1919, 11; "Why Worry About Sugar?," *Chicago Daily Tribune*, November 25, 1919, 7; "Corn Products to Pay Dividends If Earned," *Wall Street Journal*, April 4, 1919, 9; "Corn Products Operates at About 75% of Capacity," *Wall*

endorsement” of the venerable “Oscar,” *maître d’* of the Waldorf-Astoria, in their marketing efforts and marketed their product to Spanish-speaking consumers.¹⁰⁵⁰ In the CPRC’s 1923 report to its stockholders, President Bedford wrote that the “company’s earnings are due in no small measure to these products [Karo syrup, Mazola oil, and Argo starch], which have been strengthened and developed by large advertising expenditures.”¹⁰⁵¹ Starting in 1924, the CPRC promoted a recent study finding that feeding Karo to infants proved beneficial to their health.¹⁰⁵² This became part of a lasting effort to market Karo-plus-milk formulas to doctors and mothers, and successful acts of feeding Karo to infants converted no small number of concerned parents to ardent fans of refined corn products. As Mrs. Robert Dailey, Treasurer of the South Dakota Farm Women’s Congress, later recalled, she and her husband were “rather dubious” when their doctor advised the couple to feed their “last baby...using a formula containing corn syrup for the sweetener,” because they “thot corn syrup “mostly glucose,”” but after their son “made a steady satisfactory gain,” they “[c]onsequently” became “firm[]” believers “in the use of corn syrup.”¹⁰⁵³ Having observed that her own child was “thriving beautifully

Street Journal, August 31, 1921, 4. A series of ads for Karo appear in *The Manchester Guardian* between late November, 1919 and March 1920. For sample Karo Maple flavor advertisement, see “Just out~the New Karo Maple,” *Chicago Daily Tribune*, February 19, 1920, 9.

¹⁰⁵⁰ Oscar provided the opening endorsement in the CPRC’s first postwar cookbook, Corn Products Refining Company, *Proven Recipes Showing the Uses of the Three Great Products from Corn* (New York: Corn Products Refining Company, 191-). This text was probably produced between 1919 and 1922, based on the availability of Karo Maple flavor in the “green” tin. After 1922, it was sold in orange tins. Also, the subtitle “Showing the uses of the Three Great Products from Corn” and the book’s style distinctly echo CPRC’s wartime publications. Item in author’s collection. I thank April Merleaux for alerting me to Karo’s marketing efforts in San Antonio’s *La Prensa* newspaper. See ads for Domingo Fernandez, a San Antonio grocer, in *La Prensa*, November 27, 1919 and on July 17, 1921.

¹⁰⁵¹ ———, “Annual Report of the Corn Products Refining Company for the Year Ended December 31, 1922,” (New York: 1923). Harvard Business School’s Baker Library holds microfilm copies of CPC and CPRC reports from 1902 through at least 1936, which I examined during the course of my research.

¹⁰⁵² For the original study recommending the use of Karo to provide the carbohydrates to be mixed with lactic acid and cow’s milk, see Marriott and Davidson, “Acidified Whole Milk as a Routine Infant Food,” *Journal of American Medical Association* 81 ((1923). For citation of the study, see Thompson S. Westcott and Alvin E. Siegel, “Pediatrics,” *The American Journal of the Medical Sciences* 167, no. 2 (1924): 299. They proposed adding “1 ounce [of syrup per day] for infants up to two weeks of age, and from 1 ½ to 2 ounces for the older infants.” For the CPRC’s initial use of the study in advertising, see “A Good Milk Modifier in Infant Feeding,” *The American Journal of the Medical Sciences* 167, no. 4 (1924): 9. Their promotions appeared in ads placed in the *American Journal of Medical Sciences* until December, 1924, and sporadically thereafter, as in W.A. Evans, “How to Keep Well,” *The Washington Post*, October 6, 1927, 12. In the mid 1930s, the Karo-infant link arose again as Canada’s Dionne Quintuplets, born in 1934, became hugely popular Karo-fed spokeschildren through the 1940s.

¹⁰⁵³ (Mrs. Robert) Lulu Dailey to Arthur Hyde, June 1, 1930; GC, 1557, Sugar (For corn Sugar), June 1-15, 1930 incl.; RG 16; NACP.

on corn syrup sweetened cows milk,” Mrs. Paul Smith, another Corn Belt housewife, echoed Dailey by asserting that her baby was “A living example of its benefits.”¹⁰⁵⁴

Though the company experienced a great deal of growth among U.S. consumers following the war, its expansions also intersected with postwar agricultural depressions resulting from massive corn surpluses. And although many proposals for ameliorating that problem circulated within the Office of the Secretary of Agriculture, suggestions promoting the eating of excess corn proved particularly attractive to farming, business, and government organizations.¹⁰⁵⁵ One William Earl Mackey, for instance, wrote to the Secretary of Agriculture to suggest a “scheme to induce people to use more corn products as food & in this way increasing demand f[o]r corn & ultimately raising price of corn.”¹⁰⁵⁶ Such ideas agreed with key staff in the Department, who busied their extensive network of local “extension forces” to “promot[e] the use of corn products for human food” and launched an “Eat More Corn” campaign in the fall of 1921.¹⁰⁵⁷ In Sioux City, the local Kiwanis organization called for its 600 fellow clubs to organize a nationwide “Corn Week” wherein “all hotels, restaurants, clubs, dining cars and the people in general, will be asked to increase the number of corn products on their menus.” Meanwhile, “grocery stores” would display corn products, and newspapers would describe “the economic necessity of a greater consumption of corn.”¹⁰⁵⁸ Perhaps building on that proposal, the Lincoln, Nebraska, Chamber of Commerce organized a national “Corn Eaters’ Club of America” in early January, 1922. Members of the club—whose

¹⁰⁵⁴ Mrs. Paul N. Smith to Arthur Hyde, June 6, 1930; GC, 1557, Sugar (For corn Sugar), June 1-15, 1930 incl.; RG 16; NACP.

¹⁰⁵⁵ See for instance Mrs. Lulu Finch to Henry Wallace, November 22, 1920; GC, 751, Grain-Corn, 1920; RG 16; NACP; William Simms to Henry Wallace, October 31, 1921; GC, 825, Grain - Corn, 1921; RG 16; NACP; Ralph W. Jones to Charles W. Pugsley, October 17, 1921; GC, 890, Corn as Fuel, 1922; RG 16; NACP; Department of Agriculture Office of the Secretary to the Economic Council, September 20, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP; H.B. Miner to Henry Wallace, March 25, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP.

¹⁰⁵⁶ William Earl Mackey to Henry Wallace, March 29, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP.

¹⁰⁵⁷ See sample letter “To Extension Directors,” drafted by A.C. True and enclosed in A.C. True to C.W. Pugsley, October 24, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP. For the USDA’s “Eat More Corn” campaign, see Harlan Smith to C.W. Pugsley, Memorandum, December 7, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP. See also C.W. Pugsley to F.J. Wittier, January 14, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP. Pugsley, the USDA’s Assistant Secretary, seems to have had a particular hand in circulating ideas about eating more corn. See for instance “Corn Recipes from U.S. Department of Agriculture,” enclosed in C.W. Pugsley to Lawrence L. Davidson, November 2, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP.

¹⁰⁵⁸ Lawrence L. Davidson to Henry Wallace, October 25, 1921; GC, 825, Grain-Corn, 1921; RG 16; NACP.

inaugural meeting at their Lincoln “Corn Crib” featured a corn-themed banquet for 500 regional agricultural leaders and a play celebrating King Corn’s defeat of the problems of under-consumption and of “High Taxes, High Freight Rates, High Interest Rates, Speculation, and Old Man Debt”—would eat corn “every day” and “advocate the greater use of corn in all ways.” Notably, they would also “discourage and combat all propaganda advocating the restriction of corn acreage and the use of corn as a fuel.”¹⁰⁵⁹ By some accounts, the event temporarily increased local demand for corn by more than thirty percent.¹⁰⁶⁰ More importantly, the effort resonated well with local businesses, regional organizations like the Nebraska Cannery Association, and the national Chamber of Commerce.¹⁰⁶¹ The USDA was keen on entertaining proposals to eat more corn. Secretary Henry Wallace stated that such plans had the potential to “reach city food consumers” far more effectively than “reams of white paper” advocating corn consumption.¹⁰⁶² Other campaigns to encourage corn consumption included a privately funded “eat more corn” initiative. This featured advertisements in more than 500 newspapers around the country and in the passenger stations of seven or eight western railroad lines. By eating up to one-half pound more corn per day, including “corn syrup,” the campaign told consumers that they would enable the farmer to “pay his debts and buy merchandise” and “the merchant [to] buy more goods.” This would allow “the manufacturer [to] put more men to work at good wages; and they in turn [will] have

¹⁰⁵⁹ W.S. Whitten to C.W. Pugsley, January 14, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP; Henry Wallace to William Butterworth, January 14, 1922; GC, 900, Grain - Corn, 1922; RG 16, NACP; C.W. Pugsley to D.A. Skinner, January 20, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP; “Corn Eaters at Banquet,” *Nebraska State Journal*, January 5, 1922; “Lincoln “Crib” Formed at Corn Eaters Banquet,” *The Lincoln Star*, January 5, 1922.; W.S. Whitten to Nebraska Secretaries, December 28, 1921 and W.S. Whitten to Officers in Various Agricultural Associations, December 29, 1921; GC, 900, Grain-Corn, 1922; RG 16; NACP; “A Corn Popper,” enclosure in Fred B. Humphrey to Henry Wallace, Jan. 25, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP.

¹⁰⁶⁰ Henry Wallace to William Butterworth, January 14, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP. Lincoln’s Secretary of the Chamber of Commerce, however, later pointed out that “increasing the consumption of corn...needs something besides a serio-comic play to put the idea across.” See W.S. Whitten to C.W. Pugsley, February 27, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP.

¹⁰⁶¹ See E.W. Bassett to President Corn Eaters Association, December 30, 1921; GC, 900, Grain-Corn, 1922; RG 16; NACP; William H. Harrison to the Lincoln Crib, Corn Eaters of America, January 13, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP; Colvin B. Brown to C.W. Pugsley, February 17, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP.

¹⁰⁶² That the Lincoln Corn Crib activities took place in the Assistant Secretary’s hometown did not hurt the Department’s support for its activities, as Pugsley recommended its activities to others interested in stimulating corn eating. See for instance C.W. Pugsley to William Butterworth, January 17, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP. For Secretary Wallace’s comment, see Henry Wallace to Fred B. Humphrey, February 8, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP.

money for food and clothes and the comforts of life.”¹⁰⁶³ Corn interests even sought to expand corn consumption overseas. One Josephine Huse, affiliated with the Near East relief efforts in Constantinople, reported that her organization had diligently tried to include more corn in the diets of starving children.¹⁰⁶⁴ Such efforts continued throughout the early 1920s as farmers and the businesses that stood to benefit from strong commodity prices faced surpluses, diminished markets, and environmental damage.¹⁰⁶⁵

CORN SUGAR AND THE QUESTION OF FARM RELIEF, 1923-1926

For the CPRC, economic depression mattered in so much as the company, in seeking to introduce its new products to industrial consumers and systems of government regulation, was better able to play up the farmer-friendly possibilities of its new products. In 1923, after the crops of 1921 and 1922 had pushed the already large surplus from 1920 over the limit of what the market could readily absorb, the CPRC introduced its new corn sugar, Cerelose, to canners and other food manufacturers. Cerelose was the CPRC’s name for its new solution to its old problem of efficiently producing and selling a white, crystallized sugar derived from corn. Its inventor, William P. Newkirk, had worked for the American Beet Sugar Company before being hired as the “chief sugar technologist for the United States Bureau of Standards.” The CPRC first borrowed and then hired Newkirk from that position, and after four years of his experiments in the company’s employ, Bedford’s corporation was able to market the new refined product to manufacturers as feeding bakers’ yeast better than sucrose, satisfying confectioners’ desires for smooth candy structures, and preventing ice crystals from forming in frozen desserts like ice cream. The product also preserved the “color, form, and texture” and flavor” of canned or preserved vegetables and fruits, and because the CPRC derived it from corn efficiently, was cheaper than sugar.¹⁰⁶⁶

¹⁰⁶³ Henry W. Chittenden to Henry C. Wallace, and enclosure, April 17, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP. The author of the campaign was popularly unknown, so much so that the State of Missouri’s board of Agriculture wrote to the USDA wondering whether the “Corn Products” company was behind the campaign. See Jewell Mayes to Gentlemen, April 4, 1922; GC, 900, Grain-Corn, 1922; RG 16; NACP.

¹⁰⁶⁴ Josephine Huse to Alonzo E. Wilson, August 23, 1921; GC, 900, Grain-Corn, 1922; RG 16; NACP.

¹⁰⁶⁵ GC, RG 16, NACP, see especially the following boxes and folders: 751, Grain - Corn, 1920; 825, Grain - Corn, 1921; 900, Grain - Corn, 1922; 987, Grain - Corn, 1923.

¹⁰⁶⁶ Peckham explains that another CPRC employee, Dr. Christian Porst, who worked in the CPRC’s research laboratory at their Edgewater plant, began to research a substance known as “C. P. anhydrous

The CPRC approached potential industrial consumers with these benefits in mind. In April of 1923, CPRC agent Albert A. Smith sent R. I. Bentley of the California Packing Corporation “a small can of our Cerelose sugar,” informing him, “this sugar has all the preserving qualities of cane sugar, with a little less sweetening... giving a more pronounced flavor to the fruit... In addition to this, the cost is much less.” Promoted as a substance to blend with cane sugar in equal parts, the CPRC freely offered Bentley’s company samples of Cerelose for experimental purposes, promising cost savings of “two to three cents a pound” and promoting its “healthful qualities.”¹⁰⁶⁷ Bentley, however, had little interest in Cerelose because it did not fit a number of the nation’s food standards. Back in March of 1906, the USDA had defined canned fruits and preserves as only containing “sugar (sucrose).”¹⁰⁶⁸ Similarly, in 1913, the Department had defined sugar itself as “the product chemically known as sucrose, chiefly obtained from sugar cane, sugar beets, sorghum, maple, and palm.”¹⁰⁶⁹ Because corn sugar, as dextrose, did not fit these definitions, Bentley’s organization—and others—would have to note their use of the product on their foods’ labels. When producers like William P. Hartley could

dextrose” in 1911. While the company marketed the fruits of his labors, Exose, as a very pure specialty sugar, it was also very expensive. When Porst visited the Sugar Laboratory housed in the Department of Commerce’s Bureau of Standards in the summer of 1915 for advice on reducing the costs of Exose, the Bureau and the CPRC began “a fruitful collaboration...that was to continue for several years.” In 1918, the Bureau hired William Newkirk from the American Beet Sugar Company for his expertise regarding dextrose crystallization. Shortly thereafter, Porst convinced Bureau employees to “loan” Newkirk to the CPRC “as a visiting consultant.” Newkirk formally joined the CPRC in 1920, and shortly thereafter (experimenting with new methods) discovered that he could extract about 25 pounds of C.P. dextrose per bushel of milled corn. By 1921 he and Porst persuaded Bedford and others at the CPRC to build a new plant for additional research on the substance, and by 1923 the company was building another for commercial production of Cerelose. Such managerial support for the product derived from its benefits over other forms of sugar: it fed bakers’ yeast better than sucrose, satisfied confectioners’ desires for smooth candy structure, and prevented ice crystals from forming in frozen desserts like ice cream. It also preserved the “color, form, and texture” and flavor” of canned or preserved vegetables and fruits, and because it was efficiently derived from corn, was cheaper than sugar. See Peckham, “Economics and Invention: A Technological History of the Corn Refining Industry of the United States,” 336-341. For other corn sugar invention stories, see “Dr. Wiley Assails Corn Sugar Bill.”; “Sugar Expert Visiting Here,” *Los Angeles Times*, June 8, 1927, A21. See also William G. Holt, *In the Department of Agriculture of the United States of America in Re Refined Corn Sugar, to Honorable Arthur M. Hyde, Secretary of Agriculture, Petition and Brief of Corn Products Refining Company* (1930), 4; GC, 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP. For early marketing, see ETB to W.G. Campbell, December 11, 1924; GC, 1054, Corn Syrup, 1924; RG 16; NACP.

¹⁰⁶⁷ Albert A. Smith to R.I. Bentley, April 23, 1923; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP.

¹⁰⁶⁸ Peckham, “Economics and Invention: A Technological History of the Corn Refining Industry of the United States,” 606.

¹⁰⁶⁹ C.W. Raymond, “Voice of the People,” *Chicago Daily Tribune*, July 30, 1930, 10.

promote items like Black Currant Jelly as containing fruit, “finest sugar, and no other ingredient whatever,” [Image 5.22] the labels of comparable products forced to note their use of corn sugar, Bentley believed, would prejudice the consumer against the latter.¹⁰⁷⁰



Image 5.22 / “Wm. P. Hartley’s Black Currant Jelly,” 1930.

Neither the CPRC nor newspapers promoting the interests of industrial refiners were daunted in the face of canners’ reticence to adopt corn sugar. As Cerelose became a viable product, both Bedford’s corporation and these outlets planted a number of very public seeds for expanding corn sugar’s place in Americans’ diets. In April of 1923, just as the CPRC sought to introduce it to Bentley’s canning company, *The Washington Post* reported that the CPRC believed its product would “revolutionize the sugar industry.”¹⁰⁷¹ Six months later, the *Wall Street Journal* still “expected” that the CPRC’s Cerelose “may eventually be marketed under the pure food laws in the same class as cane and beet sugar” and that it was “being sold to a limited extent for use in manufacture of candy and ice cream.”¹⁰⁷² Meanwhile the CPRC doubled its Cerelose production between 1923 and 1924.¹⁰⁷³ In April of 1924, the Vice President of the CPRC wrote to Cyrenus Cole, one of the Iowa congressmen who would soon promote an amendment to the Pure Food and Drug Act in favor of the wider use of corn sugar, to argue that the manufacture of the product “will perhaps be the greatest single factor in the disposal of the surplus corn produced by this country.”¹⁰⁷⁴ That summer, *The Chicago Daily Tribune* touted the

¹⁰⁷⁰ R.I. Bentley to Albert A. Smith, May 1, 1923; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP. For an example of such a label, see that affixed within Jay Chapin to Arthur M. Hyde, July 31, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador’s Files); RG 16; NACP.

¹⁰⁷¹ “Sugar from Corn May Lower Prices,” *The Washington Post*, 1924, 12.

¹⁰⁷² “Corn Products Refining,” *Wall Street Journal*, October 11, 1923, 8.

¹⁰⁷³ Peckham, “Economics and Invention: A Technological History of the Corn Refining Industry of the United States,” 342.

¹⁰⁷⁴ *Ibid.*, 343. For more on Cole, see my discussion of 1926 corn sugar debates, below.

product's virtues for producing "ice cream, candy, preserving, and for use on fruits" and puffed that the new corn sugar was so pure as to be "presentable on the most spotless linen tablecloth." Therefore, if Midwestern farmers and politicians "were willing to boost "big business" if "big business" meant more business for them," it advised, "Chicago, St. Louis, and Kansas City may yet become the greatest sugar centers of the world."¹⁰⁷⁵ Another *Tribune* article was more direct: for corn growers, consumers' and manufacturers' widespread use of corn sugar could "take the place of 8,000,000,000 pounds of imported cane sugar." This would benefit farmers, manufacturers, and consumers alike, as "higher prices for corn or increased acreage... would stimulate other industries and lower the prices of many articles to the consumer."¹⁰⁷⁶ In light of Corn Belt farmers' economic needs and manufacturers' potential demands for the product, the CPRC, farm-oriented newspapers, business organizations, and regional government representatives began an all-out campaign to amend the Pure Food and Drugs Act and the related standards for sugar so as to encourage wider consumption of this new product.

By the end of 1924, Bedford was heavily promoting corn sugar to Walter Campbell, the USDA's Director of Regulatory Work. Bedford's hope was that standards for sugar might be expanded to encompass "Sucrose or Dextrose," because his company's product did not exist when the official Standards for sugar were created. Much as Bedford's earlier arguments for corn syrup's redefinition rested upon claims that its production would benefit the farmer, so too his later corn sugar boosting articulated that manufacturers' use of the new product "would increase the consumption of corn ten million bushels or more."¹⁰⁷⁷ Aware of the Act's restrictions, and also aware that the Secretary of Agriculture had the power to amend the standards, Bedford claimed that his company's product would be "labeled, branded and billed" as exactly what it was—dextrose sugar—so that the consumer would know "exactly what he is buying." In return, he asked that "Dextrose Sugar" would "have a recognition in [the] Standards that will not prevent or retard its use."¹⁰⁷⁸ According to Campbell, however, the Secretary

¹⁰⁷⁵ Scrutator, "Sugar Made of Corn Entering Market Slowly," *Chicago Daily Tribune*, August 16, 1924, 16.

¹⁰⁷⁶ ———, "Surplus of Corn of Future May Turn to Sugar," *Chicago Daily Tribune*, August 17, 1924, A10.

¹⁰⁷⁷ ETB to W.G. Campbell, December 11, 1924; GC, 1054, Corn Syrup, 1924; RG 16; NACP.

¹⁰⁷⁸ ETB to W.G. Campbell, December 27, 1924; GC, 1054, Corn Syrup, 1924; RG 16; NACP.

could not simply remove a product from the Act's regulatory scope. Instead, he noted, "Popular understanding and trade custom largely establish standards and this Department in its announcements undertakes to reflect...public judgment in those matters."¹⁰⁷⁹

This exchange makes clear that "popular understanding" and "public judgment" of a new product would be the means toward transforming the broader government food standard. Luckily for Bedford's company, its advertising department happened to be a year into a campaign promoting the human body's requirements for dextrose, which, conveniently enough, was found in Karo. Starting at the end of 1923 and continuing throughout 1924, the CPRC had advertised dextrose-containing Karo to a range of consumers. The company promoted dextrose-laden Karo to "American mothers" and doctors, on behalf of infants and older children alike, and to outdoors-oriented men and shareholders, whom they perceived as interested in the ideals of vim and vigor.¹⁰⁸⁰ By the end of 1925, then, the CPRC had sewn its seeds of dextrose promotion among a wide swath of potential consumers.

Their efforts resonated among Corn Belt farmers, especially those in "cash corn counties" where the grain was not converted into hogs before leaving the farm and where tenant farmers facing overcapitalized land values were "in acute distress."¹⁰⁸¹ The CPRC also found common ground with these farmers' political representatives and with business organizations. That December, Iowa's Representative Cole (to whom the CPRC had written the previous April) and its Senator Cummins presented bills to each house of Congress to amend the Pure Food and Drug Act. With the "the backing of more than a million farmers and businessmen of the corn belt," the *Chicago Daily Tribune* reported, the two were fighting to remove the "handicap" against corn sugar posed by the Act and thereby stimulate greater national corn consumption. But while Cole loftily promised his

¹⁰⁷⁹ W.G. Campbell to ETB, December 31, 1924; GC, 1054, Corn Syrup, 1924; RG 16; NACP.

¹⁰⁸⁰ "A Lesson for American Mothers Taught by Orphans of the near East," *Chicago Daily Tribune*, November 30, 1923, 6; "A Good Milk Modifier in Infant Feeding," "Lessens Danger of Diarrhea in Infant Feeding," *The American Journal of the Medical Sciences* 167, no. 5 (1924): 9; "For Nutritional Results in Infant Feeding," *The American Journal of the Medical Sciences* 168, no. 2 (1924): 9; "A Valuable Addition to the Diet of Child and Adult," *The American Journal of the Medical Sciences* 168, no. 5 (1924): 8; "Open Season the Year 'Round," *Forest and Stream*, January 1924, 39; "Next to the Comforting Companionship of a Good Dog," *Forest and Stream*, February 1924, 99; "The Rigors of the 'Rig'," *Forest and Stream*, January 1925, 45; "Take a Tip from Napoleon," *Forest and Stream*, February 1925, 113; "Broad Street Gossip," *Wall Street Journal*, July 15, 1925, 2.

¹⁰⁸¹ "Wheat, Corn, and Capper," *The Independent*, January 16 1926, 61.

constituents that amending tight sugar standards “means that the total yearly surplus of corn will be sold to food manufacturing plants,” the Secretary of Agriculture, then William Jardine, argued that the consumer still needed to be protected from manufacturers’ deceptions.¹⁰⁸²

In response to what they viewed as federal insensitivity to regional needs, Corn Belt businessmen, newspapers, and farmers rallied around corn sugar for the next six months. On December 29, 1925, the Iowa Bankers’ association invited “a thousand bankers, farmers, political leaders, and businessmen...for an agricultural marketing conference and to devise means for immediate relief for farmers of the corn belt.” Not surprisingly, “the removal of discriminatory legislation against use of corn sugar in preserving” was high on their list of suggestions.¹⁰⁸³ As 1926 began, the editors of the *Chicago Tribune* continued to fan corn sugar’s flames: “growers of the middle west are in great distress because of the enormous surplus of corn,” they wrote, and “[a]nything which can be done to reduce the surplus will prove of great benefit to the entire corn belt.” Amending the Pure Food Act to enable manufacturers to substitute domestic corn sugar for imported cane without noting that substitution on food labels—thus no longer “discriminating against Iowa, Indiana, Illinois, Kansas, Nebraska, and the remainder of the corn belt in favor of Cuba”—would dispose of that surplus.¹⁰⁸⁴ Following the leadership of Iowa bankers, the *Tribune* offered its own “agricultural platform” to “[r]emove the stigma from corn sugar” to dispose of surplus crops.¹⁰⁸⁵

Newspaper accounts suggest that individuals and organizations across the Corn Belt not only adopted the proposals for the corn sugar amendment as a leading solution for farm relief but also created novel ways to perform these new politics. Throughout that winter, “[c]orn days and corn meetings” were planned in hopes of transforming “the gold of the corn into the gold of a dividend for the grower.”¹⁰⁸⁶ Rural women

¹⁰⁸² "Iowans Fight Pure Food Ban on Corn Sugar," *Chicago Daily Tribune*, December, 1925, 27. An amended form of this article appeared same day. See "Lifting of Corn Sugar Rule Asked," *Los Angeles Times*, December 25, 1925, 5.

¹⁰⁸³ "Fair Profit and Export Market Farm Demand," *Chicago Daily Tribune*, December 30, 1925, 1.

¹⁰⁸⁴ "A Sweet Thing for the Corn Belt," *Chicago Daily Tribune*, December 31, 1925, 6; Arthur Evans, "See Corn Sugar as One Relief for Farm Woes," *Chicago Daily Tribune*, January 1, 1926, 35; Evans, "Sweeten up U.S. With Corn Sugar Is Farmer' Plea."

¹⁰⁸⁵ "A Farm Program," *Chicago Daily Tribune*, January 8, 1926, 8.

¹⁰⁸⁶ "King Corn to Mount His Throne: Campaign for Wider Use Sweeps Middle West as by-Products Feast Planned," *Los Angeles Times*, January 9 1926, 4.

participated by purchasing trial packages of corn sugar to produce preserves and jellies.¹⁰⁸⁷ In Illinois, Iowa, and Indiana, locally grown corn sugar replaced Cuban cane in hotels, restaurants, and homes.¹⁰⁸⁸ Grocers, meanwhile, displayed “[w]ide open sacks of corn sugar...in store windows” and poured “[c]orn sirup...over corn cakes.”¹⁰⁸⁹ In one Iowa Farm Bureau district, corn “campaigners place[d] a 166-pound sack of corn sugar in 90 per cent of the farmers’ homes,” while in Henry, Illinois, 1,000 “one pound samples of corn sugar, put up in little sacks, were given to...persons who attended a corn day meeting” and “stores had corn products on display and a corn dinner was served.”¹⁰⁹⁰ Elsewhere, 3,000 “farmers, business men, and bankers” from fifty two Illinois counties—fed meals of “corn fed beef, succotash, corn bread, corn sirup, escalloped hominy, ginger cake sweetened with corn sirup, cornstarch sauce and coffee sweetened with corn sugar”—met to ask the governor’s help in solving the surplus, coordinating with other corn belt states, and amending the Pure Food law.¹⁰⁹¹ Through these events, activists drew Washington into the corn sugar fervor, as well. A delegation of Iowa farmers traveled to the nation’s capital in an attempt to persuade President Coolidge to increase the market for “corn products, especially corn sugar,” while a “National Drive on bakery goods using various corn ingredients” organized by the “Bakeries of America” drew Secretary of Agriculture William Jardine further into the corn sugar agitation.¹⁰⁹²

The Senate responded swiftly, and at the end of January, approved Cummins’ bill to amend the Pure Food law.¹⁰⁹³ In the House, other representatives amended Cole’s bill to expand extant permissions for the unlabeled use of corn sugar to “confectionery,

¹⁰⁸⁷ Edward G. Brown to Mrs. Charles Sewell, May 28, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

¹⁰⁸⁸ “Arthur Evans, “Defiant Iowans Call Revolt in 11 Corn States,” *Chicago Daily Tribune*, January 9, 1926, 2.

¹⁰⁸⁹ Ibid.

¹⁰⁹⁰ “King Corn to Mount His Throne: Campaign for Wider Use Sweeps Middle West as by-Products Feast Planned,” 4; “1,000 Samples of Corn Sugar Are Given Away,” *Chicago Daily Tribune*, January 26, 1926, 26.

¹⁰⁹¹ Frank Ridgway, “Illinois Joins in Demand for Farm Relief,” *Chicago Daily Tribune*, January 10, 1926, 13. This may have been the same event in Morris, Illinois noted in “King Corn to Mount His Throne: Campaign for Wider Use Sweeps Middle West as by-Products Feast Planned,” 4.

¹⁰⁹² “Want More Corn Sugar Used,” *Wall Street Journal*, January 9, 1926, 15.; J. Reed Lane to William Jardine, January 18, 1926, and F.M. Russell to J. Reed Lane, January 21, 1926; GC, 1194, Corn, 1926; RG 16; NACP.

¹⁰⁹³ “Corn Sugar Act Gets Unanimous O.K. Of Senate,” *Chicago Daily Tribune*, January 31, 1926, 18.

frozen products, bakers' products and meat products."¹⁰⁹⁴ But as the House held hearings about corn sugar in March, it became evident that opposition to the product's unlabeled use remained.¹⁰⁹⁵ Earlier, even the Corn Belt press had cautioned corn sugar's boosters about the "conservatism of the kitchen," observing that while "we consume [corn sugar] in ice cream and bread without any label," its labeled use in "canned and preserved fruits... creates unwarranted doubt in the mind of the consumer as to its wholesomeness."¹⁰⁹⁶ As the *Wall Street Journal* reminded Representative Cole and farmers alike, the "removal of that label alone will not create a market for the Iowa corn crop made into sugar," for manufacturers still needed approval of "the housewife." Educating her about the product's virtues, it maintained, would be key to its success.¹⁰⁹⁷

While regulators, canners, and reformers aired those sentiments in debates about the House bill, Walter Campbell, the USDA's Director of Regulatory Work, remained steadfast in his conviction that the unlabeled use of sucrose substitutes would be fraudulent.¹⁰⁹⁸ R. I. Bentley of the Canners League of California, meanwhile, reported to Bedford that he had "gone on record" against the bill because it would "invite other exceptions in food regulations."¹⁰⁹⁹ The CPRC's goals in pushing manufacturers to advocate for its passage, Bentley added, were against the "public good" and "granting [that Bedford's company was] successful in getting this bill thru...you [Bedford] would live to see the day that you would regret that it had ever been passed."¹¹⁰⁰ *The Washington Post* echoed these sentiments, declaring, "The food law has been of inestimable value to food consumers of this country. It would be a misfortune to begin its mutilation."¹¹⁰¹ Ever-watchful, Harvey Wiley remarked that the bill would legally

¹⁰⁹⁴ "Dr. Wiley Assails Corn Sugar Bill," 19.

¹⁰⁹⁵ William G. Holt, *In the Department of Agriculture of the United States of America in Re Refined Corn Sugar, to Honorable Arthur M. Hyde, Secretary of Agriculture, Petition and Brief of Corn Products Refining Company* (1930), 4; GC, 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP.

¹⁰⁹⁶ Scrutator, "Sugar Made of Corn Entering Market Slowly," 16. See also Scrutator, "Surplus of Corn of Future May Turn to Sugar," A10; Evans, "See Corn Sugar as One Relief for Farm Woes," 35.

¹⁰⁹⁷ "Advertise Corn," *Wall Street Journal*, January 25, 1926, 1.

¹⁰⁹⁸ William G. Holt, *In the Department of Agriculture of the United States of America in Re Refined Corn Sugar, to Honorable Arthur M. Hyde, Secretary of Agriculture, Petition and Brief of Corn Products Refining Company* (1930); GC, 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP.

¹⁰⁹⁹ R.I. Bentley to Albert A. Smith, April 20, 1926; GC, 1556, Sugar (against corn sugar, Mr. Meador's files); RG 16; NACP.

¹¹⁰⁰ R.I. Bentley to Albert A. Smith, May 7, 1926; GC, 1556, Sugar (against corn sugar, Mr. Meador's files); RG 16; NACP.

¹¹⁰¹ "The So-Called Corn-Sugar Bill," *The Washington Post*, June 16, 1926, 6.

“deceive every person in the United States who buys sugar and supposes he is getting sugar of the usual kind” and that “[i]f this bill should be approved by the House of Representatives and signed by the President, its title should be changed to... “A Bill to Repeal the Pure Food Law.” Reminding the public of his former status as “father” of the pure food act, he closed his letter with the plea that “I hope I shall not live long enough to see my child assassinated.”¹¹⁰²

But as long as amendment-friendly newspapers framed the movement as something supported and even led by farmers, the more that Bedford’s company and Corn Belt politicians could point to the requisite shift in “public judgment” needed in order to amend sugar standards.¹¹⁰³ Even so, food activists’ continued invocations as to how the Pure Food Act protected the consumer from fraud intersected with the objectives of those who sought to use corn sugar as an outlet for overproduction. Consequently, it did not pass.¹¹⁰⁴

CORN SUGAR, 1927-1930

Though they may have been disappointed by legislative failures, neither Bedford nor publications like the *Wall Street Journal* were deterred from their mission. Much as Bedford believed that the corn sugar bill would “come up again,” the *Journal* wrote that there were yet “good prospects for [a] change in laws to permit the use of corn sugar without discriminatory labeling.”¹¹⁰⁵ Because the product was finding “a growing demand in [the] manufacture of ice cream and in the rayon industry,” the *Journal*

¹¹⁰² Wiley, “Dextrose, Which It Is Proposed to Mix with Sugar, Not Real Corn Sugar but a Product of Starch,” S2.

¹¹⁰³ The CDT suggested that the CPRC played a comparatively passive hand in relation to farmers: while “The farmers hope to promote the substitution of corn sugar for cane sugar in many uses,” they explained, “The refiners, as well as the corn farmers, are eager to remove restrictions placed upon corn sugar by the federal food laws.” See “Big Increase in Corn Products to Help Farmer,” *Chicago Daily Tribune*, January 10, 1926, 13.

¹¹⁰⁴ “Day in Congress,” *The Washington Post*, April 14, 1926, 5; “Corn Sugar Makers May Get Legislative Relief,” *Wall Street Journal*, May 12, 1926, 5; “Day in Congress,” 4; “Corn Sugar Bill Passes House without Record Vote,” *Chicago Daily Tribune*, June 18, 1926, 11; “House Passes Corn Sugar Bill,” *New York Times*, June 18, 1926, 14; “Fess Measure Gains as Coalitions Weaken,” *The Washington Post*, June 29, 1926, 1. Much to Wiley’s delight, the final filibuster preventing its passage occurred when Senator M.M. Neely, of West Virginia, read from and commented upon the pages of *Good Housekeeping* for some two hours, until the piece of legislation expired. See Wiley, *Harvey W. Wiley: An Autobiography*, 305-306.

¹¹⁰⁵ ETB to R.I. Bentley, July 19, 1926; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP; “Outlook Favors Corn Products,” *Wall Street Journal*, March 24, 1927, 10.

expected “a substantial growth in its use is expected when government relief is extended to the corn refiners.”¹¹⁰⁶

For its part, the CPRC turned the failure of the corn sugar bills into another round of opportunities to sweeten American housewives on the benefits of dextrose, in hopes that further familiarizing consumers with the term would sway the requisite “public judgment” in favor of their dextrose-rich corn sugar. Extending some of the communication practices they had cultivated when introducing Karo years before, the CPRC advertised its products so as to appeal to a wide variety of consumers, from coast to coast. In Baltimore, the CPRC reminded readers of Baltimore’s *Afro-American* that “Karo contains Dextrose, the essential food element so necessary to bodily nourishment.”¹¹⁰⁷ In Pittsburgh, a town greatly influenced by industry, the company’s promotions called to consumers’ minds the fact that the CPRC “alone purchases a large percentage of the corn that leaves the farms” and that “[f]rom this tremendous purchase, this company manufactures many products,” including “Karo, the great American Syrup...well known to every American housewife.”¹¹⁰⁸ For those consumers to whom the phenomena that Kristin Hoganson has identified as “culinary internationalism” might have appealed, the CPRC asked whether they had ever “taste[d] a Chinese Onion omelet?”¹¹⁰⁹ By suggesting that consumers use Karo to do just that, the CPRC cannily connected the use of its products to these important signs of racial and class-based modernity, womanhood, and cosmopolitanism. But for those who, in Hoganson’s words, would have rather “hunkered down with familiar comfort foods” than, say, eaten Chinese omelets, the CPRC also turned to the time-worn “Mammy” or “Aunt Jemima” figure to suggest that a woman’s use of the company’s corn products could help her not only bake

¹¹⁰⁶ “Corn Products Adds to Trade-Mark Line,” *Wall Street Journal*, July 11, 1927, 11. See also “Corn Products Refining to Show \$4 on Common,” *Wall Street Journal*, November 28, 1927, 1.

¹¹⁰⁷ “Free! Ask Your Grocer Today,” *Afro-American*, July 11, 1926, 8.

¹¹⁰⁸ “Corn Belt Boasts Prosperous Year,” *The Pittsburgh Courier*, July 30, 1927, 11. For another direct link between the CPRC’s products and corn belt prosperity, see “Wheat and Corn Recognized Centuries Ago as the Staff of Life,” *The Pittsburgh Courier*, August 13, 1927, 4.

¹¹⁰⁹ “A Great Help to Progressive Housewives,” *Chicago Daily Tribune*, May 15, 1927, M7; “Did You Ever Taste a Chinese Onion Omelet?,” *Los Angeles Times*, May 17, 1927, A6. On eating as a way of being cosmopolitan, and on culinary internationalism, see Hoganson, *Consumers’ Imperium: The Global Production of American Domesticity, 1865-1920*, 105.

cornbread, but retain a semblance of (racially hierarchical) order in an era of tremendous change.¹¹¹⁰ [Images 5.23-5.24]



Image 5.23 / "Did You Ever Taste a Chinese Onion Omelet?" 1927.

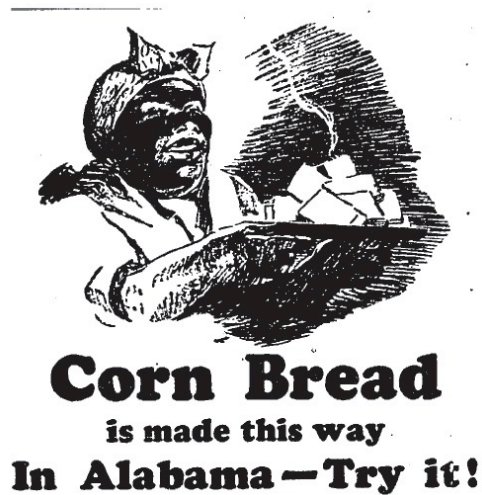


Image 5.24 / "Corn Bread Is Made This Way in Alabama--Try It!," 1927.

The company also turned to another domestic advisor to advertise Karo's dextrose-containing virtues to housewives. In the spring of 1927, the CPRC commissioned Ida Bailey Allen to publish her *Modern Methods of Preparing Delightful Foods*, the latest iteration of the company's how-to guides for its products.¹¹¹¹ As Allen related, "Recently the Corn Products Refining Company asked me if I thought women would like to know more about Corn and its products. I *knew* they would, and so...this book has come to be." She explained to readers that "in a way the early colonists did not dream about," the advanced science of industry had transformed "[t]he starch of corn... during the process of manufacture...to Dextrose." Because this conversion was otherwise done by the body, she went on, the CPRC's Karo and its other dextrose-containing products (for instance, Cerelose) "satisf[y] the natural craving for sweets without overtaxing the digestive organs." For babies whose digestive systems needed extra attention, she reminded readers, there was nothing better than dextrose added to milk. Likewise, she added, "[c]hild-feeding is as important as Baby-feeding... It should be regulated...up to High School age." And because "Children need and demand

¹¹¹⁰ Hoganson, *Consumers' Imperium: The Global Production of American Domesticity, 1865-1920*, 122; "Corn Bread Is Made This Way in Alabama--Try It!," *Los Angeles Times*, May 24, 1927, A7.

¹¹¹¹ For approximate dating of book, see ad for book in "Eight New Ideas for Luncheon," *Chicago Daily Tribune*, March 6, 1927, E5. This book cost readers ten cents.

sweets,” she suggested “Karo with bread and butter [as] an excellent luncheon or supper sweet... [because it] is easily assimilated, because it is Dextrose—that substance into which all starches and sugars must be changed by digestion. It furnishes immediate energy.”¹¹¹²

While the CPRC focused on educating consumers about their products’ virtues throughout 1927 and 1928, Corn Belt farmers turned mute about their prior desires for greater markets for corn sugar. Curiously, their paradigm shift occurred even as newspapers agitated on behalf of broader uses for corn sugar and as the CPRC ran its multi-pronged corn sugar campaign. During these years, Bedford’s corporation advertised its products to women, wrote to the USDA in hopes of changing the department’s views on the expansion of the definition of sugar or amendment of the Pure Food Act, and made plans to build a 200-ton capacity plant in Kansas City for the product’s manufacture.¹¹¹³ To be sure, rayon-producing corporations, tanners, and cattle feeders emerged as key consumers for corn sugar during the 1920s, and to some extent, their increased rates of consumption bolstered the corn sugar market during the latter half of the decade.¹¹¹⁴ However, because known industrial demands were not large enough to have solved the problem of surplus corn, they cannot explain how farmers’ political activism in 1926 disappeared shortly thereafter.

The growth of the illicit moonshine industry, on the other hand, sheds light on Corn Belt farmers’ sudden silence around the corn sugar question. Having discovered the utility of corn sugar for quickly distilling whiskey, bootleggers spent the latter part of the

¹¹¹² Ida Bailey Allen, *The Modern Method of Preparing Delightful Foods* (New York: Corn Products Refining Company, 1927), 4, 89, 12, 99. Much as other advisors had done, she also equated meal preparation with CPRC products as a sign of a woman’s successful family stewardship. “What you provide for Luncheon determines the afternoon’s success—Your husband’s—the children’s—your own” (27), she wrote, adding that only by trying new recipes and serving special dainty dishes can “we—as Mothers—...place the memory-milestones that hold a family together” (90).

¹¹¹³ On newspaper agitation, see Wheeler McMillen, “Uses Now Found for Agricultural Waste,” *New York Times*, October 2, 1927, X14; “Corn Products Refining to Show \$4 on Common,” 1; “Uses for Corn Sugar,” *Los Angeles Times*, December 19, 1927, A4; “Corn Products Business Good,” *Wall Street Journal*, January 5, 1928, 9; “Sugar from Corn Fields Now Used in Many Foods,” *New York Times*, March 18, 1928, 135. For CPRC communications with the USDA, see ETB to W.M. Jardine, November 8, 1928; GC, 1340, Corn, 1928; RG 16; NACP. On the USDA’s opinion of Bedford’s points, see Director of Regulatory Work to Mr. Eisenhower, November 12, 1928; GC, 1340, Corn, 1929; RG 16; NACP. On the CPRC’s new plant, see “Corn Products to Build New Plant,” *Wall Street Journal*, December 23, 1927, 13.

¹¹¹⁴ “Corn Products Business Good,” 9; “Corn Products Has Excellent Outlook,” *Wall Street Journal*, January 14, 1929, 1; “Corn Sugar of Dry Midwest Is Basis of ‘Moon’,” *Chicago Daily Tribune*, February 18, 1929, 6.

1920s converting terrific amounts of the refined corn product into liquor.¹¹¹⁵ Not only was corn sugar readily available in stores or in covert shipments from manufacturers like the CPRC, but when combined with water and yeast, the product produced alcohol largely without the noxious, detectable smells associated with mash.¹¹¹⁶ In one sensational account of a 1927 Sheriff's raid on a Ventura, California farm, for example, the eight 2,500 gallon vats in use—ostensibly fueled by the “[q]uantities of corn sugar and yeast” found on the property—left no smell, for even as the deputies “approached the spot they could detect no odor.”¹¹¹⁷ By 1929, according to U.S. Prohibition Commissioner James Doran, corn sugar was producing 95% of the nation's whiskey. Before the Volstead Act and the “bone dry” sentiments of Corn Belt residents brought Prohibition into force, he explained, manufacturers utilized just over 100,000 pounds of corn sugar. But in 1928 alone, he asserted, some 25,000,000 bushels of corn had been used to produce 968,600,525 pounds of sugar. Given that unchanged food standards requiring the majority of manufacturers to declare any use of corn sugar dissuaded them from utilizing the product, Doran deduced that the Corn Belt owed “much of its present measure of prosperity,” and indeed, farmers' complacency, “to the widespread violation” of Prohibition.¹¹¹⁸

After the Federal government created stricter modes of enforcing Prohibition, however, namely by passing the Jones Act in March of 1929, bootleggers' demands for corn sugar decreased. This Act dramatically increased the financial and judicial penalties with which violators of Prohibition might be charged, and a month and a half after its passage, demands for the A.E. Staley company's corn sugar decreased by twenty five percent. Passage of the Jones Act, therefore, matters not simply because it backed up the Volstead Act with harsher penalties, but because its implementation appears to have

¹¹¹⁵ "Need of Larger Outlet for Corn Shown by Leech," *Chicago Daily Tribune*, August 25, 1928, 18; A.H. Ulm, "Corn Sugar Usage Hugely Increased by Rum Producers," *The Washington Post*, March 16, 1930, 17.

¹¹¹⁶ On ready availability, see Myrtle Meyer Eldred, "Your Baby and Mine," *Los Angeles Times*, January 11, 1930, 8; "U.S. Nation of Home Brewers under Volstead," *Chicago Daily Tribune*, March 18, 1929, 16. On the CPRC sending “200 carloads” of corn sugar to bootleg distilleries, see "U.S. Dry Ban Hits Yeast, Corn Sugar," *Chicago Daily Tribune*, February 11, 1930, 1; "Fleischman Firm Indicted," *New York Times*, February 11, 1930, 3.

¹¹¹⁷ "Moonshiners Made Liquor by Wholesale," *Los Angeles Times*, July 14, 1927, A10.

¹¹¹⁸ "Corn Sugar of Dry Midwest Is Basis of 'Moon'," 6. See also calculations by John C. Gebhart, research director of the Association Against the Prohibition Amendment, in "America's Drink Bill Unaffected by Prohibition," *Chicago Daily Tribune*, December 29, 1929, 2.

prompted a critical mass of bootleggers to reconsider their illicit trade such that corn refiners faced material drops in demands for corn sugar.¹¹¹⁹ This, in turn, revived refiners' interests in expanding the USDA's definition of sugar to encompass corn sugar and prompted them to stir up popular sentiment in favor of corn sugar anew.

Almost immediately after the Jones Act went into effect, the Senate introduced a measure at the end of April, 1929 "declar[ing] that no prepared food product shall be deemed misbranded if i[t] contains dextrose (corn sugar) as an ingredient without declaration on the label of its presence." Little came of it, however.¹¹²⁰ In March of 1930, the CPRC formally petitioned Secretary of Agriculture Arthur Hyde for a policy statement or an amendment to the Food and Drugs Act officially recognizing corn sugar "as a pure, wholesome and nutritious food and placed upon an equality with other sugars." In the corporation's view, it was discriminatory to require producers of "cold-packed fruits, canned fruits and vegetables, beverages, jams, jellies and preserves, apple and other fruit butters, catchups and relishes" to disclose their use of corn sugar, but not that of cane or beet, on product labels. It was also preposterous, in their eyes, in light of the fact that manufacturers of "confectionery, ice cream and similar frozen products, bakery products, and meat food products" were able to use corn sugar without so notifying the consumer. Because the corn that was sold for cash off the farm established the commodity's price nationwide, the CPRC reiterated, and because the corn refining industry consumed more than thirty percent of that cash corn, a revision to sugar's definition or an amendment to the Act would mean a broader "outlet for pure refined corn sugar" and would "naturally increase the consumption of corn by this industry and surely enhance its market place." Greater purchases of corn, in turn, the company again promised, would "bring large amounts of money to the corn farmers" and "will also supply more labor and generally add substantially to the promotion of transportation, trade and commerce." For a Secretary of Agriculture truly concerned with farm reform,

¹¹¹⁹ "Deportations Seen Jones Act Result," *The Washington Post*, March 2, 1929, 5; "Jones Law Affects Corn Sugar Producer," *New York Times*, April 24, 1929, 14; "Seven Here Face Drastic Dry Law," *The New York Times*, March 5, 1929, 25.

¹¹²⁰ This was S. 685. See Arthur M. Hyde to Earl C. Smith, January 25, 1930; GC, 1556, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP. See also "Abreast of the Market," *Wall Street Journal*, April 27, 1929, 8.; Mrs. Elizabeth Fritchey to Arthur M. Hyde, July 28, 1930; GC, 1556, Sugar (against corn sugar, Mr. Meador's files); RG 16; NACP. Fritchey, the President of the National Housewives Alliance, Inc., informed Hyde that her organization had "kept an eye on S. 685" since its introduction by Senator Capper.

Bedford's company assured, "no more practical, lasting, and efficient farm relief measure could be devised" than "a mere announcement...placing corn sugar upon an equality with cane and beet sugar."¹¹²¹

Shortly after the CPRC filed its petition, business and farm organizations rallied around the CPRC's cause and, much as in 1926, brought the full force of their lobbying to bear on the corn sugar question. Cognizant of the CPRC's presence in their community, the Board of Directors of the Kansas City Chamber of Commerce requested the removal of "all restrictions now existing against the use of refined corn sugar."¹¹²² *The Washington Post* reiterated that the expanded consumption of corn sugar would solve the farm problem and that of national self-sufficiency in sugar production.¹¹²³ The Associated Products of Corn Manufacturers, of which the CPRC was a member, sponsored advertisements circulated in newspapers from Washington to Topeka heralding the "vast market" promised from goods created or "refined from ordinary Indian, or yellow field, corn."¹¹²⁴ *The Prairie Farmer* also urged the change, demanding that Hyde "Remove Discrimination Against Corn Sugar" while citing "[t]he corn products people [who] say that the removal of the discrimination against corn sugar would create a demand for 40 million bushels more corn a year."¹¹²⁵

Despite the corn industry's attempts to rouse Corn Belt communities into action, the USDA was still unwilling to alter its definition of sugar or to amend the Pure Food and Drugs Act. The Secretary himself was yet of the opinion that that "an additional market for ten million bushels" of corn would be of "slight significance to the farmer...in the face of an approximate three billion annual production."¹¹²⁶ The USDA's Director of Regulatory Work, meanwhile, though "sympathetic," did not want to advocate for it and

¹¹²¹ William G. Holt, *In the Department of Agriculture of the United States of America in Re Refined Corn Sugar, to Honorable Arthur M. Hyde, Secretary of Agriculture, Petition and Brief of Corn Products Refining Company* (1930), 2, 5, 6, 32; GC, 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP. See also Frank H. Hall to William G. Holt, April 22, 1930; 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP.

¹¹²² Kansas City Chamber of Commerce Board of Directors, April 13, 1930; 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP.

¹¹²³ "Corn Sugar," *The Washington Post*, April 15, 1930, 6.

¹¹²⁴ "This May Be One of the Most Important Solutions of the Farm Problem," *Topeka State Journal*, May 1, 1930. Filed in GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

¹¹²⁵ "Remove Discrimination against Corn Sugar," *The Prairie Farmer*, August 2, 1930, 5. Filed in GC, 1555, Sugar, Misc re corn sugar (Mr. Meador's files); RG 16; NACP.

¹¹²⁶ Arthur Hyde to Harry B. Hawes, April 1930; GC, 1557, Sugar (for corn sugar) Jan-May 1930; RG 16; NACP.

thereby “compromise with a principle.”¹¹²⁷ Even some agricultural representatives outside of Washington were skeptical that it would accomplish real change.¹¹²⁸

In hopes that a new group of stakeholders could push Washington politics in more productive directions, the corn industry took a decidedly different tact and turned to a group of Corn Belt housewives whom they saw as holding clout both as farm-based producers and as consumption-oriented women. Each “producer-consumer,” I suggest, differed from what Lizabeth Cohen has identified as the “citizen-consumer.”¹¹²⁹ As a farm-based producer and as a consumption-oriented housewife, she remained attuned to ways in which purchasing goods could improve the economic stability of her family, her region, and the nation. Because these women bridged the worlds of agricultural production and of household consumption, and because they were already organized in regional women’s farm organizations, corn refining interests turned directly to producer-consumers in hopes of influencing Washington politics. Whereas corn sugar boosters like Bedford, Corn Belt congressmen, and regional newspapers had long made much of the housewife’s purported preferences, fears, and goals while advancing their own agendas for expanding uses of the refined grain’s products, the corn sugar question of 1930 marked a moment where refiners and affiliated organizations acknowledged these women as real economic and political actors.

That spring, the Associated Corn Products Manufacturers (ACPM), of which the CPRC was a major member, notified Mrs. Charles Sewell, the Director of the Home and Community Department of the American Farm Bureau Federation, that they would soon send her “two thousand boxes of candy” made with corn sugar to distribute among “Farm Bureau women” in order to show them “what a wonderful candy can be manufactured from refined corn sugar.”¹¹³⁰ In May, Sewell forwarded the boxes of “chocolate coated marshmellow [sic] & chocolate caramels made of refined corn sugar” to her

¹¹²⁷ Walter G. Campbell to Asher E. Langworthy, May 6, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

¹¹²⁸ Asher E. Langworthy to Walter G. Campbell, May 3, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

¹¹²⁹ Lizabeth Cohen, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America* (New York: Vintage Books, 2004), 32-38.

¹¹³⁰ Mrs. Charles Sewell to Mrs. Roy Brown (and Others), May 20, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

constituents.¹¹³¹ Along with the sweet surprise, she included a letter explaining how current labeling requirements inhibited the broader use of corn sugar in food manufacturing and thereby damaged the residents of the Corn Belt. Acknowledging the Farm Bureau women she addressed as forward-thinking housewives and as proactive guardians of their families' diets, she explained, "if we saw...a statement on the label we would think that the corn sugar was an adulterant or an objectionable substance." Even so, she asserted, "our only [real] concern is whether the [sweetened or preserved] food is wholesome, nutritive and pure, and suits our taste." Thus by writing to the Secretary to remove the "unjust discrimination," she wrote, "we women," as experts in household management and as partners in family businesses related to Corn Belt crop production, could "directly aid in this matter" and help "enlarg[e] [the] corn market" by some twenty million bushels per year.¹¹³²

Mrs. Sewell's letter ignited a firestorm of responses. Given the degree to which her rhetoric echoed that of the CPRC, she raised the hackles of many who encountered the ploy, including Edward Brown, President of the Sioux Honey Association and maker of Sioux Bee Brand Honey. By using her office "to enlist the support of the women," he wrote to her, the CPRC—as the largest member of the ACPM—was extending its long pattern of making "continuous attempts to break down" the stipulations of the Pure Food Law at the expense of consumers and other farm producers. Suggesting that she was helping the company dupe rural women, he reminded her that the call to consume corn sugar in 1926 had "resulted in a thoroughly disgusted rural population who felt they had been roped in for a bunch of suckers." He explained further, "Much of the corn sugar that was purchased for trial use at that time was thrown out, and I have met with a number of farm women who had a batch of jelly or preserves made with corn sugar that granulated in a short while, much to the maker's disgust." Again, he wrote, instead of consumer assistance or true "farm relief," the CPRC and the ACPM merely "had benefits for the Corn Products manufacturers at stake."¹¹³³

¹¹³¹ For the description of the chocolates, see Mrs. Ruth E. Reeves to Arthur Hyde, May 28, 1930; GC, Sugar (against corn sugar), 1930; RG 16; NACP.

¹¹³² Mrs. Charles Sewell to Mrs. Roy Brown (and Others), May 20, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

¹¹³³ Edward G. Brown to Mrs. Charles Sewell, May 28, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP. In another letter directed to Secretary Hyde, he added, "corn sugar carries no favor with the

Nevertheless, of the 2,000 Farm Bureau members whom Sewell contacted, 1,957 sent letters to the Secretary of Agriculture, including Mabel Satterthwaite and La Vere Hughs Moats, whose heartfelt letters frame the beginning of this chapter.¹¹³⁴ And although many of these writers sought to persuade to Secretary Hyde by using Sewell's words (and by extension, those of the ACPM and the CPRC), others like Satterthwaite and Hughs Moats made the call to remove the "discrimination" against corn sugar distinctly their own. From Kentucky, Ohio, Kansas, Nebraska, Iowa, Illinois, Minnesota, South Dakota and even New York, these Farm Bureau women wrote to Secretary Hyde as individuals in charge of and interested in what their families consumed, as residents of a suffering region, and as faithful believers in the government's willingness to listen to their struggles. Mrs. Rex Ashmore, for instance, asserted, "refined corn sugar is a wholesome & healthful ingredient in sweetened food products."¹¹³⁵ Mrs. Leonard Nissen agreed, writing, "I have used this sugar, and eaten food sweetened with it, and find it is just as good as other sugars."¹¹³⁶ Others mentioned their familiarity with and trust of corn syrup, suggesting that if one refined corn product was helpful around the house, the other should be, as well. Thus while Ruth and Mrs. Grand Crone wrote to say that they "have close friends who use the corn sugar and syrup for canning purposes," Mrs. Bernise Fullerton reported, "In making home made candies corn syrup is always used in my home."¹¹³⁷ Mrs. Alice H. Beebee wrote on behalf of her peers in the Harrison County, Iowa Farm Bureau, "asking [Secretary Hyde] to use your influence to remove the ban from corn sugar... We would like to have it on the market every where and used in canning, candies, etc. without having to be labeled as a drug or substitute. It could do us corn belt farmers no harm to have the corn sugar market use some of our corn."

farmers in many parts of Iowa and I am sure that if the methods used by the corn products people were generally known, that the farmers would greatly object to such a misuse of their organization, and that any letters which you may receive in support of corn sugar are not representative of the general farming population." See Edward G. Brown to Arthur M. Hyde, June 3, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP. See also J.A. Munro to Arthur M. Hyde, June 21, 1930; GC, 1556, Sugar (against corn sugar), 1930; RG 16; NACP.

¹¹³⁴ Mrs. Cha[rle]s W. Sewell to Arthur M. Hyde, September 23, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP.

¹¹³⁵ Mrs. Rex Ashmore to Arthur M. Hyde, June 24, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16; NACP.

¹¹³⁶ Mrs. Leonard Nissen to Arthur M. Hyde, June 24, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16; NACP.

¹¹³⁷ Ruth and Mrs. Grant Crane to Arthur M. Hyde, n.d. and Mrs. Mernies Fullerton to Arthur M. Hyde, June 2, 1930; GC, 1557, Sugar (For corn Sugar) June 1-15, 1930; RG 16; NACP.

Moreover, she added, “why buy from Cuba what grows in our own fields?”¹¹³⁸ Mrs. Arthur Leavitt, Chairman of the Franklin County Home Bureau in Gabriels, New York, echoed that sentiment, observing that the corn sugar was “a truly American product” and pointing out that “Freer use of this would certainly be a direct aid to the farmers of the middle west.”¹¹³⁹

Others among these producer-consumers used their letters to discuss the larger point that expanding legislative definitions of sugar or amending the Pure Food Act would directly help farm families. Mrs. John H. Greenwood, the wife of an Oxford, Indiana grain farmer, suggested that greater markets for corn in the form of corn sugar might ameliorate the economic hardship she and others in the Corn Belt had long felt. “We farmers are going through a critical period, how hard we are having it, I do not believe you can realize, not just this year but since war times. We were the first to feel the depression, each year does not seem to get better as we hoped. Before the war we had a good checking account, we’ve none now we work harder to get along. We have wartime prices to pay for what we buy & most of us repair the old & get along the best can with it. We have war time taxes also to pay and less than before the war income with which to do it. A better market for corn would greatly help.”¹¹⁴⁰ Mrs. A.D. Wilson echoed Greenwood’s struggles. “Quite a number of the Farm houses in our community are filled with shop men who were layed of[f],” she wrote. “Many of the Farmers’ are unable to keep their farms leaving them go to the mortgage holder... They are unable to get only what the market is a paying for their products.”¹¹⁴¹ Mrs. R.W. Spear, Secretary of Allen County Federation of Farm Women in Yoder, Indiana, was more blunt about how expanded national markets for corn sugar might put an end to the apparent demise of her own agrarian dream: “[A]fter having had experience in sugar beet production [I] am more convinced than ever to encourage the use of [corn sugar] more. Sugar beet production brings Mexicans and hard manual labor for women and children under bad

¹¹³⁸ Mrs. Alice H. Beebee to Arthur M. Hyde, June 25, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16; NACP.

¹¹³⁹ Mrs. Arthur Leavitt to Arthur M. Hyde, July 11, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16; NACP.

¹¹⁴⁰ Mrs. John H. Greenwood to Arthur M. Hyde, May 29, 1930; GC, 1557, Sugar (for corn sugar) Jan-May 1930; RG 16; NACP.

¹¹⁴¹ Mrs. A.D. Wilson, Jr. to Arthur M. Hyde, June 26, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16, NACP.

conditions.” But problems with gender, race, and labor were not the only lenses through which she viewed the corn sugar question. At stake was the myth of the independent (white) farmer that had brought families like hers to Indiana for a century:

“I have seen, homes and farms go back to the real estate company for the lack of being able to pay interest and principal and taxes. In the last ten years one farm within two miles has changed hands three times. Twice the farmer [became] bankrupt by conditions over which he had no power. The last time...the widow with four little children was given \$100.000 for possession. She went out empty-handed... Homes have been lost not through careless extravagant living but by present conditions and taxation... and you find conditions we have today.”¹¹⁴²

While we cannot know whether Secretary Hyde read each and every one of the nearly two thousand letters that his office eventually filed away, Farm Bureau women appear to have played active parts in shaping the corn sugar debates. In addition to the letter writing campaign, an official “Testing Circle” of ten Farm Bureau women conducted 256 tests on the use of corn sugar in “preserve[s], jam, jelly and fruit butter.” In their reports to the Farm Bureau, seven of these housewives “specifically urged removal of restrictions against the use of corn sugar by food manufacturers.” In response, the organization certified the product’s purity and forwarded their results to the ACPM and Secretary Hyde.¹¹⁴³

A month after Sewell and the Farm Bureau women began to flood his office with their letters, Secretary Hyde invited interested parties to attend hearings on corn sugar.¹¹⁴⁴ The barrage of correspondence submitted in anticipation of and later reflecting upon those hearings fell along fairly polar lines. Socio-economic contexts provided the foundation for the rhetoric submitted by those in favor of USDA action on behalf of corn refiners’ interests. These parties emphasized farm families’ needs for outlets for their surplus crops and the poor logic of importing Cuban cane sugar when a comparable product could be procured domestically. On this point, the ineffable E. T. Bedford led

¹¹⁴² Mrs. R.W. Spear to Arthur M. Hyde, June 6, 1930; GC, 1557, Sugar (For corn Sugar) June 1-15), 1930, incl.; RG 16; NACP.

¹¹⁴³ Jay Chapin to Arthur M. Hyde, July 31, 1930; GC, 1557, Sugar, (For corn Sugar) (Mr. Meador’s files); RG 16; NACP.

¹¹⁴⁴ The meeting would be held July 25, in his office. The short notice outraged many opponents. For hearing date, see USDA Office of Information, “Press Service,” July 19, 1930; GC, 1555, Sugar, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP. For an example of an outraged participant (given the lack of time to prepare), see R.I. Bentley to Arthur M. Hyde, July 29, 1930; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP.

the charge. Trying both persuasion and flattery, he suggested that while Hyde's assistant, Walter Campbell did not "appreciate[] how important this is," Bedford believed that Hyde himself had "the interest of the corn growers at heart."¹¹⁴⁵ Mrs. Sewell, meanwhile, took it upon herself "to go on record" as relating the voice of "many hundreds of farm women interested in increasing and improving markets for agricultural products, particularly that of American grown corn," because the "economic conditions in agriculture are readily reflected in standards of home and community life."¹¹⁴⁶ Similarly, the Secretary of the Nebraska Farm Bureau Federation wrote to say that "[t]he farmers of the Corn Belt need every possible encouragement at the present time by finding new uses for the products of the Corn Belt."¹¹⁴⁷ Iowa Senator H.S. Van Alstein observed that his constituents in the Corn Belt "can see no good reason why our people should continue to export a corn surplus and import foreign sugar and pay the freight both ways, when we can make our own sugar from our own home grown corn, and at the same time contribute in some measure to a solution of the farm problem."¹¹⁴⁸

Individuals holding these views bolstered their claims that corn sugar deserved to be classified as regular sugar with the facts that scientific research had yet to find health problems associated with its use and that certain foodstuffs already contained it without the label requirement. William Hull, a Republican congressman from Illinois who regularly petitioned on the product's behalf, wrote to Secretary Hyde with the observation that "If [corn sugar] is beneficial to sick babies it cannot be considered anything but beneficial to mankind in general."¹¹⁴⁹ For his part, Bedford noted "that

¹¹⁴⁵ ETB to Arthur M. Hyde, July 22, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's Files); RG 16; NACP.

¹¹⁴⁶ Mrs. Cha[rle]s W. Sewell to Arthur M. Hyde, September 23, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP. Her letter was among the materials forwarded from the Washington Representative of American Farm Bureau to the Secretary, in Chester H. Gray to Arthur M. Hyde, December 12, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP. Other writers continued to inundate the Secretary, directly and through mass media. See William E. Hull to Arthur M. Hyde, July 26, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's Files); RG 16; NACP; "Corn Sugar," *Chicago Daily Tribune*, July 28, 1930, 14; Raymond, "Voice of the People," 10.; Frank Warner to Arthur M. Hyde, August 2, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's files); RG 16; NACP; R.T. Crosthwaite to Morris Shepphard, August 14, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's files); RG 16; NACP.

¹¹⁴⁷ C.B. Steward to Arthur M. Hyde, July 22, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's Files); RG 16; NACP.

¹¹⁴⁸ H.S. Van Alstein to Arthur M. Hyde, July 26, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's Files); RG 16; NACP.

¹¹⁴⁹ William E. Hull to Arthur M. Hyde, July 26, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's Files); RG 16; NACP. For more on Hull, see "Hoover Presses His Farm Relief Plan on Senate," *Chicago*

doctors are advising that Dextrose be substituted...[for] Sucrose and there are a number of consumers known to us who...use it in preference to Sucrose.”¹¹⁵⁰ Though the editors of the *Chicago Daily Tribune* shared their thoughts more publicly than those who submitted statements to Hyde, they also pointed out that “No one has dared suggest that [corn sugar] is not [as healthful as cane or beet sugar].”¹¹⁵¹

Conversely, another set of writers beseeched Hyde to disregard the corn refiners’ requests and those of their supporters under the premise that changing the USDA’s standards for sugar or amending the Pure Food Act to encompass the wider unlabeled use of corn sugar would do away with consumers’ trust in the government, mislead many hundreds of thousands of women, and hurt other agricultural industries without assisting the American corn farmer. This was the opinion Ernest Root shared in asserting that such change would injure 800,000 beekeepers and cheat 125,000,000 people—especially “the housewife.”¹¹⁵² Anna K. Wiley, widow of the recently deceased Harvey Wiley, took up his mantle of reform by writing directly to the President in a public forum. In her mind, “the Food Law [wa]s a consumers’ measure” and “has given the millions of people in this country an implicit faith in the good will of the Government to stand behind the label on every food product they buy.” However, she cautioned, “[i]f corn sugar...is allowed to enter our foods in unlimited quantities under the guise of cane sugar...this fine spirit of our manufacturers will be destroyed and the fine trust of the consuming public will vanish away.”¹¹⁵³ Miss Alice Lakey, who had worked closely with Wiley and the National Consumers’ League for the cause of Pure Food while he was at the Bureau of Chemistry, concurred, explaining, “it will only be a little while before all other food products...will appeal for exemption.”¹¹⁵⁴ **[Image 5.25]**

Daily Tribune, April 21, 1929, 16; "Fight to Lift U.S. Bar on Corn Sugar in Food," *Chicago Daily Tribune*, December 15, 1930, 16.

¹¹⁵⁰ ETB to Arthur M. Hyde, July 22, 1930; GC, 1557, Sugar (For Corn Sugar) (Mr. Meador’s Files); RG 16; NACP.

¹¹⁵¹ "Corn Sugar," 14.

¹¹⁵² Ernest R. Root to President Hoover, August, 1930; GC, 1555, Sugar, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP.

¹¹⁵³ Anna K. Wiley to the President, July 31, 1930; GC, 1555, Sugar, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP. See also W.I. Matthews, "Voice of the People," *Chicago Daily Tribune*, August 4, 1930, 14; Grant, "Mrs. Wiley Takes up Husband's Mantle," SM4.

¹¹⁵⁴ Miss Alice Lakey to Arthur M. Hyde, July 28, 1930; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP.



Image 5.25 / “Cutting the birthday cake to celebrate the twentieth anniversary of the passage of the Pure Food and Drug Law, at the Waldorf Astoria Hotel in New York City,” c1926.

As these letters articulate, many women were united on this question. Ida Blythe Baggs, President of the House-keepers’ Alliance of Washington D.C., informed Secretary Hyde that if the Act was amended by the USDA, women around the country “would naturally lose faith in and look with distrust upon any future statements emanating from the Department of Agriculture.”¹¹⁵⁵ Mrs. Elizabeth Fritchey, President of the National Housewives’ Alliance, held a similar view. “As a leader of homemakers,” she wrote, “I believe their interest should be safe-guarded and every letter of the Pure Food Laws enforced, and every attempt to break down these laws should be protested by the housewife.” Thus her organization had “been watching the Corn Sugar Bills for nearly three years,” and she was unwilling to let this attempt to weaken the Act pass without protest.¹¹⁵⁶ And Katharine S. Meritt, President of Washington, D.C.’s Federation of Women’s Clubs, asserted that for women, “it would be a great calamity and result in

¹¹⁵⁵ Ida Blythe Baggs to Arthur M. Hyde, July 29, 1930; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP.

¹¹⁵⁶ Mrs. Elizabeth Fritchey to Arthur M. Hyde, July 28, 1930; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP.

inestimable harm should the pure food laws now be weakened by the proposed abandonment of the...Pure Food Act.”¹¹⁵⁷

Those who maintained that policy changes would not actually assist the farmer included Roy Grous, a representative of the National Cannery Association. He maintained that because all foods derive from the farm, “while helping one class of farmers, injury is being done to others.” Moreover, he surmised, “an individual farm in Kansas” would “never feel” any “real advantage... if modification [on behalf of corn sugar] were enacted.”¹¹⁵⁸ Joseph S. Davis, the Chief Economist of Federal Farm Board, forecasted that “The proposed change in the regulations or their application to corn sugar would...have no appreciable effect upon the farm price of corn, and yield no appreciable advantage to farmers who raise it, except to a very limited extent in a limited area tributary to the corn sugar manufacturing plants that increased their output in consequence of the change.” The senators and the Farm Bureau members pushing for the change, he believed, had “had the wool pulled over their eyes by the skilful propaganda of the manufacturers who hope to profit by the change.”¹¹⁵⁹

During three hours of hearings before Secretary Hyde on July 25, 1930, twenty seven individuals representing the CPMC, the ACPM, the American Farm Bureau, the Kansas City Chamber of Commerce and Board of Trade, the St. Louis Children’s Hospital, the Shrieber (Malt) Products Company, the Association of Domestic Sugar Producers, the National Cannery Association, the National Association of Wholesale Grocers, the Associated Food Officials of the United States, State Commissioners of agriculture, food, and health, various State and Provincial Health Officials, beekeepers, “the public,” and *Good Housekeeping* magazine spoke about what the proposed change

¹¹⁵⁷ Katharine S. Merritt to Arthur M. Hyde, July 29, 1930; GC, 1556, Sugar (against corn sugar, Mr. Meador’s files); RG 16; NACP. The file to which Lakey, Baggs, Fritchey and Merritt contributed contained hundreds of letters from around the country, not only from homemakers’ associations but also from beekeepers, grocers, cannery, state departments of agriculture, individual housewives, doctors, maple syrup companies, and if I recall correctly, the Dole Pineapple Company. I encountered the file early in my research when I did not yet understand the importance I would eventually place upon corn sugar, and have not had the opportunity to return to these files for further examination.

¹¹⁵⁸ Roy Grous to S.D. Fess, August 27, 1930; GC, 1555, Sugar, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP.

¹¹⁵⁹ Joseph S. Davis, “Some Convictions on the Sugar Question,” November 25, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP.

would mean.¹¹⁶⁰ While the assembled parties generally agreed on the product's wholesomeness, the fact that corn sugar belonged to the family of sugars, and that the public interpreted the term "sugar" to mean sucrose derived from cane or beet (as opposed to the dextrose derived from corn), they differed in what should be done about Regulation 21 of the Pure Food Act. This, then, was the crux of the matter, as the policy stated that "When a substance of a recognized quality commonly used in the preparation of a food product is replaced in whole or in part by another substance...the name of its substitute shall appear on the label."¹¹⁶¹ As the official representative of "the public" and "the consumers," Anna Wiley's beliefs took a great deal of precedence. She reiterated her long-held contention that "To the housewife sugar is sucrose." Thus "to sell canned goods sweetened with corn sugar without a label would be deception and a violation of the spirit of the food and drug act, which is intended to protect the buyer."¹¹⁶² Others, however, disagreed. In a letter sent after the hearing, Frank Hall, another CPRC representative, asserted, "There is no evidence that the buyer of sweetened food products gives any thought whatever to the kind of sugar used in their preparation. The consumer is concerned primarily with the wholesomeness of the food she buys and secondarily with the appearance, taste and satisfaction obtained in its use."¹¹⁶³

¹¹⁶⁰ For detail and summaries, see Smith & Hulse, "Hearing before Honorable Arthur M. Hyde, Secretary of Agriculture. In the Matter of Regulations Concerning the Labeling of Food Products Containing Corn Sugar, July 25, 1930"; GC, 1555, Sugar [Hearings]; RG 16; NACP; Joseph S. Davis, "The Corn Sugar Question (Revised)," November 25, 1930, 1-2; GC, 1555, Sugar, Misc., 1930, 1-2; RG 16; NACP; "Corn Sugar Battle Rages for 3 Hours before Hyde," 7.

¹¹⁶¹ Joseph S. Davis, "The Corn Sugar Question (Revised)," November 25, 1930, 1-2; GC, 1555, Sugar, Misc., 1930, 1-5; RG 16; NACP.

¹¹⁶² Joseph S. Davis, "The Corn Sugar Question (Revised)," November 25, 1930, 1-2; GC, 1555, Sugar, Misc., 1930, 1-2; RG 16; NACP; "Corn Sugar Battle Rages for 3 Hours before Hyde," 7.

¹¹⁶³ Frank H. Hall to Arthur M. Hyde, July 29, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador's files); RG 16; NACP. This was nearly the same rhetoric that appeared on March 2nd or 3rd, 1926, as the House of Representatives held a hearing of the Committee of Interstate and Foreign Commerce. There, Congressman Newton had exclaimed "It seems to me it is a rather violent assumption to make that the person going into a store and buying a can of preserved peaches...has in mind that those peaches were preserved in the particular kind of sugar. They are not interested in the sugar; they are interested in the peaches and in the proper preservation of them." See William G. Holt, "In the Department of Agriculture of the United States of America in Re Refined Corn Sugar, to Honorable Arthur M. Hyde, Secretary of Agriculture, Petition and Brief of Corn Products Refining Company," 1930, 8; GC, 1557, Sugar (for corn sugar) Jan-May, 1930; RG 16; NACP.

Following the hearing, the President conferred with many of the same parties at meetings held in the White House.¹¹⁶⁴ Letters on behalf of one side or the other continued to pour into the offices of Secretary Hyde and Corn Belt senators and representatives throughout the fall.¹¹⁶⁵ And as newspapers circulated interpretations of what such a change would mean, corn refiners sought to influence food officials from around the country.¹¹⁶⁶ In the middle of December, the Farm Bureau and a group of Corn Belt politicians pressed President Hoover to finally take action.¹¹⁶⁷ On December 18th, no fewer than forty-one congressmen and two senators appeared before Secretary Hyde.¹¹⁶⁸ The day after Christmas, the USDA announced that a new definition for sugar would be implemented on the thirty-first of the month. It decreed that the product would have to be “labeled as such” when sold in separate packages or in bulk, but—on the issue that was dearest to the hearts of farmers, refiners, businessmen, newspapers, and consumers, and most hotly contested—declared that “the use of pure refined corn sugar as an ingredient in the packing, preparation or processing of any article of food in which sugar is a recognized element need not be declared upon the label of any such product.”¹¹⁶⁹

According to Hyde, “an affirmative economic reason” was behind his departure from predecessors’ unwillingness to amend the USDA’s standards for sugar. “American agriculture is overproduced,” Hyde explained. “The fact that production runs ahead of

¹¹⁶⁴ This took place on July 31, 1930. See Joseph S. Davis, “The Corn Sugar Question (Revised),” November 25, 1930, 2; GC, 1555, Sugar, Misc., 1930; RG 16; NACP; “Fight over Corn Sugar Carried to White House,” *Chicago Daily Tribune*, August 2, 1930, 10; “Corn Producers Find Opposition in Sugar Fight,” *Chicago Daily Tribune*, August 3, 1930, 21.

¹¹⁶⁵ Many have been cited above. See for instance Roy Grous to S.D. Fess, August 27, 1930; GC, 1555, Sugar, Misc re corn sugar (Mr. Meador’s files); RG 16; NACP; Chester H. Gray to Arthur M. Hyde, December 12, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP.

¹¹⁶⁶ See for instance “Corn Products Profit Outlook,” *Wall Street Journal*, August 15, 1930, 3. See also Jay Chapin, “Present and Future Status of Corn Sugar in Food Products, Talk Given by Jay Chapin, Sect. of Associated Corn Products Manufacturers, at the Convention of the Association of Dairy, Food & Drug Officials of the United States, New Orleans, November 13, 1930”; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador’s files); RG 16; NACP; Jay Chapin to Mr. Meador, December 2, 1930; GC, 1557, Sugar, (For Corn Sugar) (Mr. Meador’s files); RG 16; NACP; “Rise of the Corn Sugar Industry,” *Facts about Sugar*.

¹¹⁶⁷ “Fight to Lift U.S. Bar on Corn Sugar in Food,” 16.

¹¹⁶⁸ Chester H. Gray to Arthur M. Hyde, December 12, 1930; GC, 1555, Sugar, Misc., 1930; RG 16; NACP. See also “Illinoisans Request Secretary Hyde to Lift Corn Sugar Ban,” *Chicago Daily Tribune*, December 19, 1930, 8.

¹¹⁶⁹ USDA Food and Drug Administration, “Service and Regulatory Announcements, Food and Drug No. 2 (First Revision) Supplement No. 3.,” December 31, 1930; GC, 1556, Sugar (for corn sugar), 1930; RG 16; NACP.

consumption is responsible for most of the ills of agriculture.” While the USDA, agricultural colleges, and farm organizations were working to ameliorate that overproduction, he added, and while acreage control was a viable option, “[f]inding new uses and new outlets for crops” was of vital importance. “If we fail to use all available methods of restoring agricultural balance...we shall be derelict in duty.” Following the logic that Bedford and the CPRC had shared with the department since the earliest debates on corn syrup, he observed that “the sale price” of just over ten percent of the 2,700,000,000 bushels of corn produced, being the only amount that “ever reaches primary markets,” was the price that “fixes the farm prices for the whole crop.” Thus, he concluded, “Be the percentage large or small, the opening of this potential market for corn is a step in the right direction.”¹¹⁷⁰ The primacy Secretary Hyde placed on economics at the end of 1930, then, marked a distinct shift from Walter Campbell’s earlier statement to E.T. Bedford that “public judgment” would shape the Department’s standards for sugar. Hyde’s acknowledgement of “economic reason,” instead, suggests that five decades of corn refiners’ statements about the benefits their industry bestowed to the farmer had finally come to hold more weight than other paradigms.



Image 5.26 / “Mrs. H. W. Wiley [Anna Kelton Wiley] and John and Harvey [Wiley].”

¹¹⁷⁰ Coverage of his statements in “Hyde Opens up New Market to Corn Farmers,” *Chicago Daily Tribune*, December 27, 1930, 3; “Curb on Corn Sugar in Foods Is Ended,” *The New York Times*, December 27, 1930, 3; “Corn Sugar Bar Lifted by Hyde,” *Los Angeles Times*, December 27, 1930, 2.

Chairman of the Memorial Committee at the services in honor of
Dean Emma Gillett at the United States Capitol, Sunday, May 15 [1927].”

Interpretations of his decision varied. While *The Washington Post* expressed cautious optimism that “it may tend to relieve agricultural overproduction,” the *Chicago Daily Tribune* was more effuse, stating that Hyde “threw open a new and important market to farmers of the corn growing states.”¹¹⁷¹ For its part, the *Wall Street Journal* calculated that it could mean a seven percent increase in the sales of corn sold for cash.¹¹⁷² But while representatives from the Illinois Agricultural association, Iowa’s Farm Bureau, and the ACPM heartily embraced the ruling, Mrs. Wiley (like the women she represented) was far less pleased.¹¹⁷³ **[Image 5.26]** She averred that “Secretary Hyde...has lost sight entirely of the interests of consumers for whose benefit the law was enacted and in whose interest it has been consistently enforced.” The change, she added, “will do much to weaken the confidence of consumers in the Federal enforcement of the pure food law which heretofore has been a bulwark of safety for the food of the nation.”¹¹⁷⁴ Other organizations agreed with her and registered their protests against the decision.¹¹⁷⁵ For its part, the CPRC marked its approval of the transformation by releasing a statement showing that it planned to double its output of corn sugar at the end of the year and by telling its stockholders that the removal of the “discriminative label declaration” meant greatly expanded uses for the product in the years to come.¹¹⁷⁶

CONCLUSION

Corporate innovation and regulatory actions taken by the Federal government have been the primary influences upon the movement of corn from farmers’ fields to Americans’ stomachs since the middle of the nineteenth century. As Progressive-era chemists experimented with the plasticity of the corn kernel’s starchy qualities, so too

¹¹⁷¹ "Corn Sugar," S1; "Hyde Opens up New Market to Corn Farmers," 3; "Curb on Corn Sugar in Foods Is Ended," 3.

¹¹⁷² "Trade Looks for Corn Sugar Gain," *Wall Street Journal*, December 29, 1930, 1.

¹¹⁷³ Paul Potter, "Hail New Corn Sugar Rule as Boon to Farms," *Chicago Daily Tribune*, December 28, 1930, 13.

¹¹⁷⁴ "Mrs. Wiley Attacks Ruling on Corn Sugar," *The New York Times*, December 29, 1930, 2.

¹¹⁷⁵ "Reconsider Corn Sugar Decision, Plea to Hyde," *Chicago Daily Tribune*, January 22, 1931, 11.

¹¹⁷⁶ "Company to Double Corn Sugar Output," *The New York Times*, December 30, 1930, 38; Corn Products Refining Company, "Annual Report for the Year Ended December 31, 1931," (New York: 1932), 6.

interested stakeholders turned, with special focus, to the Department of Agriculture in expectation that the Department's leaders would shape policies regarding the place of refined corn products in the nation's foodways in response to their own demands. In this way, large corporations, regional farm organizations, small town committees, and thousands of individual consumers made claims upon the offices of the Secretary and the Department's chief chemist. However, the USDA was neither the only sounding board nor the lone policy maker in Washington. A maze of bureaus, departments, and congressmen also acted in concert—and sometimes in tension—with corporations, domestic advisors, farmers, and consumers as each sought to have a say in what entered the nation's foodways and how. At one level, these stakeholders' queries and interventions about refined corn products are useful historical documents because they showcase the context and processes through which corn became an even more economically valuable plant. At another, they point to—and indeed, formed—key components of the larger dynamics through which the state came to have a say in shaping the development of the market, consumers and farm producers alike came to have stronger voices in government, and large industries used the tools of mass culture to influence favorable legislative outcomes.

CHAPTER SIX

Boosting Yields, Making Profits, and Raising Kings: Corn Production and the Modernization of the American State

*“[I]n these Corn Clubs, which mean practically a doubling of production per acre, the appeal has been made to the farm boys, and so subtly and wisely and discreetly has the plan been carried out that the best farmers are now those who were inoculated with the bacillus of progress before they were fifteen.”*¹¹⁷⁷

-Elbert Hubbard, “Essay on Corn Clubs,” c. 1910-1915



Image 6.1 / “Boys now attending the Agricultural College of Mississippi who were formerly members of Boys’ Corn Clubs in the State,” 1913.

In July of 1913, Bradford Knapp, the U.S. Department of Agriculture’s Special Agent in charge of the Farmers’ Cooperative Demonstration Work for Southern states, a branch of the Bureau of Plant Industry, forwarded two photographs to Secretary David

¹¹⁷⁷ Elbert Hubbard, “Corn Clubs,” in Perry G. Holden, *Photo Album [and Family History]*, 154; Perry G. Holden Papers (PGHP), box 2; Iowa State Special Collections (IAST), Ames. Actual date of essay publication is uncertain; Hubbard died when the *Lusitania* sank in 1915, but a Google Books search for the essay that Holden pasted into his album appears, at the earliest date, in 1922. See Elbert Hubbard, *Selected Writings of Elbert Hubbard* (New York: Wm. H. Wise & Co., 1922), 345-356.

Houston. “One,” he wrote, “shows the boys who were in Corn Clubs and are now attending the Agricultural College of Mississippi. [Image 6.1] The other,” he added, “shows a good Mississippi farmer,--one of the real common, every-day fellows who has commenced to do better work. He is the type that we are getting at. Not[e] the hog-wire fence and the good corn crop, as well as the farmer’s smile.” [Image 6.2] Days later, Secretary Houston replied that the farmer’s pleasure was “justified, judging from the background” and that he was pleased “to see those boys,” whom he described as “a very husky looking lot,” not only “in College” but also “thinking about crops.”¹¹⁷⁸



Image 6.2 / “GETTING TO THE REAL FARMER. A Mississippi Farmer who is making a good Demonstrator and aiding modern methods of Agriculture. His corn crop shows it, also his smile,” 1913.

¹¹⁷⁸ Bradford Knapp to David F. Houston, Secretary, July 26, 1913, with two enclosures, and Houston to Knapp, July 29, 1913; GC, 80, Demonstration Work, 1912-1913; RG 16; NACP.

Given Knapp's assertion that the Mississippi farmer was precisely the type that the Department was "getting at" and Houston's affirmation of interest in Knapp's work, their exchange raises a host of questions about what was at stake for agricultural leaders during the Progressive Era. What influence *did* the Department of Agriculture have with American farmers in 1913, and how did its leaders hope to "get at" more of them? How were businesses, state agencies, and academic researchers trying to do the same? What *was* a corn club, anyway, and what was the relationship between the Department's attempts to "get at" adult farmers and its interest in the former Mississippi club members? And how does the exchange between Knapp and Houston speak to the processes through which producing the nation's most valuable agricultural staple and shaping its future farmers were becoming interrelated subjects of twentieth century policy?

Although prohibition, suffrage, and Americanization initiatives form some of the better-known components of Progressive Era reformers' platforms, agricultural progressives like Knapp and Houston were deeply invested in modernizing American farmers' methods of production. Many cherished growing convictions that farmers—including those who had little regard for formal agricultural education—must practice more efficient and intensive methods of agricultural production. Other progressives, meanwhile, were interested in transforming the substance of rural education and improving the quality of life in rural America. Despite the fact that not everyone agreed on just what should be done to effectively industrialize American agriculture or improve rural life, by and large, stakeholders at local, state, and federal levels concluded that modernizing corn production ought to be the first step in enacting larger transformations.

Towards the end of the nineteenth century, therefore, agricultural researchers at land grant universities and members of select agricultural organizations began to explore paths for improving farmers' corn yields. Their varied attempts provide an important narrative thread for this chapter. During these same years, however, county- and state-based educational leaders and local groups of progressive agriculturalists increasingly recognized that grown farmers were difficult to influence. Instead of working with adults, these reformers decided that they would bring new educational techniques to children and use the youngsters to bring modern methods of management to American farmers. Progressive agriculturalists' and educators' efforts with children, therefore,

through boys' corn clubs, form a second narrative thread. Although agriculturalists' favored practices for improving corn production changed over time, and although a loose conglomeration of boys' programs—which acquired formal USDA oversight in 1914 and became known as the 4-H program in 1918—eventually encompassed other kinds of demonstration work for both boys and girls, Knapp's correspondence with Houston highlights the fact that, by 1913, youthful corn club members were fast becoming utilitarian and symbolic cornerstones in the Department's attempts to transform American agricultural production into a paragon of efficiency and profitability.

Agricultural progressives' decades-long attempts to modernize American agriculture by improving corn yields and decreasing the costs of production, on one hand, and their attempts to use children's demonstration clubs to revolutionize farming communities, on the other, came together to great and lasting effect during the 1920s and 1930s. Although one might think that postwar agricultural surpluses would have dissuaded farmers from further increasing their yields, the opposite was true: during the 1930s, Corn Belt farmers—many of whom, thanks to club activities, had been exposed to the doctrines of efficient and profitable farming since the early twentieth century—began to adopt the high-yielding, hybrid corn plants that agricultural researchers promised would produce more corn to the acre. In this way, the evolution of boys' corn clubs provided a key foundation for the development of the modern American state and for the systems of agricultural production that currently dominate millions of acres of farmland across the United States.

TOWARDS EFFICIENCY: “THERE ARE NO MORE AMERICAS TO DISCOVER”

While dating the beginnings of reform in American agricultural circles is probably an impossible task, it was well under way by 1893, when Frederick Jackson Turner declared that the era of free land in the United States had come to an end. By then, the terminus of continental expansion had begun to occupy the minds and restructure the practices of many American farmers and agricultural leaders. As earlier chapters note, postwar improvements in transportation and technology, growing demands from urban populations and industries, and a strong belief in the elasticity of foreign markets had encouraged the extensive cultivation of corn and other crops for decades.

Even so, by the early 1890s, a dearth of uncultivated, arable, easily accessed, and available land—not to speak of the reality of debt—forced many farmers to make difficult choices. Some attempted to grow crops in places like the Dakotas. These states’ colder and drier environments, however, made corn production difficult. Even the South Dakota Real Estate Association, which sought to recruit corn-growing and cattle-raising settlers to the new state by promoting Mitchell’s corn palace, confessed as much. In one 1893 pamphlet, they explained that farmers would encounter “more risk” in attempting to grow corn “in the northern part of the State than in the southern” and suggested that while moving to the state was a fine bet for some people, it might not be ideal for those with fortunes to lose.¹¹⁷⁹

Others land seekers sought parcels on Indian reservations. While the Dawes Act had enabled massive sell-offs of “surplus” Native lands to white homesteaders, later amendments permitted non-Indians to lease remaining lands with increasing ease. In 1893, for example, Iowa and Nebraska settlers living in the vicinity of Sioux City began to lease Winnebago lands from elderly, young, or absentee tribal members for the purpose of cultivating corn and raising livestock. According to R. Douglas Hurt, the Winnebago and Omaha “had leased nearly all of the[ir] land—some fifty thousand acres” by 1895. Later policies further facilitated non-Native use of reservation lands.¹¹⁸⁰

The most common solution to the dearth in acreage, however, may have been to create new farmland in the more temperate Corn Belt states by draining wetlands. In Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, and Iowa, especially around the turn of the century, farmers tiled boggy fields and dug massive drainage networks so as to make “unproductive” land dry and therefore profitable.¹¹⁸¹ While federal legislation had encouraged wetland drainage in the middle of the nineteenth century, the cost of doing so

¹¹⁷⁹ Real Estate Association of the Corn Belt of South Dakota, *A Brief Description and a Few Testimonials Concerning the Corn Belt of South Dakota* (Yankton: Press & Dakotaian Print, 1890), 5.

¹¹⁸⁰ Hurt, *Indian Agriculture in America*, 142-145. For a remarkable collection of lease records, see Accessions 75-92-F-7 and 75-92-J-7; RG 75; NARA-Central Plains (KC). For more on those leases, see Karl Aho and Forrest Wahl, *Santee Sioux – the People, the Land: A Comprehensive Plan, Part One*, (Lincoln: Nebraska State Office of Planning and Programming, 1974), 9; Accession 75-92-E-7, Box 42, Santee Sioux – the people, the land 1974; RG 75; NARA-Central Plains (KC). And for WWI leases of Indian lands, see Thomas Britten, *American Indians in World War I* (Albuquerque: University of New Mexico Press, 1997), 144-146.

¹¹⁸¹ Perry G. Holden, “How Iowa Lost its Ponds,” in Perry G. Holden, *Photo Album [and Family History]*, 191; PGHP, box 2; IAST.

was high. But as new technologies lowered the cost and as state-based legislation encouraged the creation of drainage districts, the key corn growing states of Illinois, Indiana, Ohio, and Iowa all lost more than ninety percent of their wetlands.¹¹⁸² All of these quests for cultivating corn on new land reveal American farmers' recognition that the days of owning and plowing the most easily cultivated virgin soils had passed.

Other transformations compounded agricultural leaders' worries at the cusp of the twentieth century. One of these dilemmas stemmed from the nation's swelling population. All told, the population of the United States nearly doubled between 1870 and 1900, from 38.5 million to 76.2 million people.¹¹⁸³ As Turner had alluded in his "Frontier Thesis," immigrants comprised much of this growth, and many of these resided in cities.¹¹⁸⁴ As the nineteenth century came to an end, the precipitous surge in the nation's urban population—both immigrant and native-born—meant that increasingly large numbers of people were not producing the food they consumed.

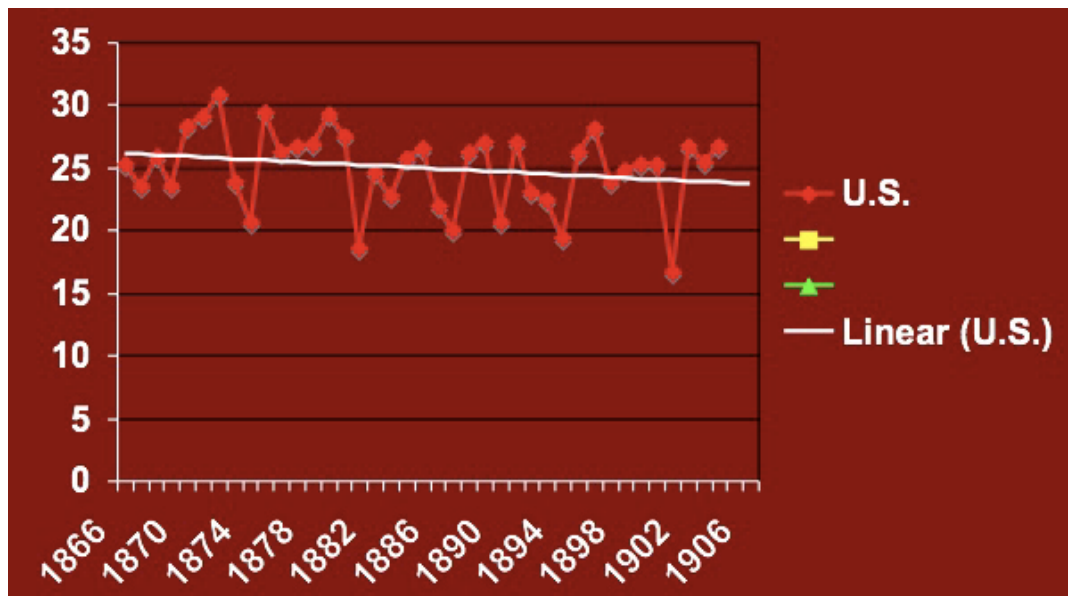


Image 6.3 / U.S. corn yields per acre 1866-1906, with linear average.

¹¹⁸² Drainage districts often encompassed several townships and relied on taxes and policies of eminent domain and compensation to produce new agricultural lands. See Mary R. McCorvie and Christopher L. Lant, "Drainage District Formation and the Loss of Midwestern Wetlands, 1850-1930," *Agricultural History* 67, no. 4 (1993). For an older case study on the transformation of Illinois wetlands, see Margaret Beattie Bogue, "The Swamp Land Act and Wet Land Utilization in Illinois, 1850-1890," *Agricultural History* 25, no. 4 (1951).

¹¹⁸³ "Population, 1790 to 1990," <http://www.census.gov/population/www/censusdata/files/table-4.pdf>.

¹¹⁸⁴ Turner, "The Significance of the Frontier in American History."

Perhaps the most pressing issue for agricultural leaders, however, had to do with the fact that the nation's average number of bushels of corn produced per acre—its acre yields—had not increased during the decades following the Civil War. Though the total number of acres cultivated, as we have seen, experienced rapid growth during these decades, acre yields remained relatively flat and low.¹¹⁸⁵ **[Image 6.3]** In spite of boosters' claims that American agricultural production was virtually unlimited, this lack of increase bespoke serious problems. As Iowa agronomy professor and agricultural reformer Perry Holden warned an audience in the first decade of the twentieth century: "there are no more Americas to discover, [and] no more Illinois and Iowa prairies for the government to open up to home seekers."¹¹⁸⁶

Although political leaders would have been loathe to say so, these three trends—limited acreage available for corn cultivation, rapid population growth, and diminishing acre yields—created an anxious undercurrent during the 1890s. The Panic of 1893 and the ensuing drop in farm prices, Populist unrest, and consumers' increasingly vociferous protests against adulterated foods further underscored fears about the future of American agricultural production. These complex factors, one historian has argued, "made it imperative for farmers to cut costs and to increase efficiency."¹¹⁸⁷ Particularly around the turn of the century, therefore, progressive agriculturalists began to focus on increasing corn yields and improving efficiency on the farm as the basis for transforming American agricultural production.

EAST LANSING: A KINDERGARTEN OF AGRICULTURAL PROGRESS

From the 1860s onward, land-grant agricultural colleges and state experiment stations became central players in agricultural leaders' attempts to improve and promote efficient corn production. The Morrill Act of 1862 granted large tracts of public lands to individual states with the intent that each would create and maintain an institution of

¹¹⁸⁵ Charles C. Clark, "Corn Crops of the United States, 1866-1906," ed. U.S. Department of Agriculture (Government Printing Office, 1907). See also Agriculture, "Quickstats."

¹¹⁸⁶ Perry G. Holden, "Wastes on the Farm," *The Furrow: A Journal for the Progressive Farmer*, [n.d.] in Perry G. Holden, *Photo Album [and Family History]*, 173-174; PGHP, box 2; IAST.

¹¹⁸⁷ See Gladys L. Baker et al., *Century of Service: The First 100 Years of the United States Department of Agriculture* (Washington, DC: Government Printing Office, 1963), 37.

higher education dedicated to agriculture and the mechanic arts.¹¹⁸⁸ Shortly thereafter, the Michigan Agricultural College (MAC), which would eventually become Michigan State University, became the nation's first land grant institution.¹¹⁸⁹

Thanks to the work of William James Beal, a botanist who worked with corn at MAC, the school in East Lansing became a leader in agricultural research.¹¹⁹⁰ During the 1870s, Beal began to use his knowledge of animal breeding to cross the “male” pollen and the “female” seeds of corn plants so as to increase corn yields. As earlier chapters remind us, the wind normally fertilizes corn by carrying pollen from the tassels of one plant onto the silks of any number of surrounding ears. To undertake his research, however, Beal removed the tassels from alternating rows of corn plant varieties—effectively castrating the detasseled plants—and allowed the pollen from the remaining tassels to fertilize all the stalks in his plot. This technique boosted yields between ten and fifty percent and, more importantly, enabled corn breeders to repeat and “fix” desirable crosses.¹¹⁹¹ During the 1880s, several Midwestern experiment stations—institutions which began as state-supported appendages to land grant universities, but, after passage of the 1887 Hatch Act, received federal funding to conduct agricultural research and disseminate their findings to their states' farmers—began adopting Beal's methods.¹¹⁹²

Beal's work in Michigan pioneered the techniques that would eventually help develop high-yielding hybrid corn crosses and nurtured the early careers of the men who would transform American agricultural practices during the next fifty years. One of these was Eugene Davenport. Born in Michigan, Davenport graduated from MAC in 1878 and received a master of science there in 1884. Starting in 1888, he taught at MAC and worked as Beal's assistant. Over the next three years, he conducted work in corn breeding, taught agriculture, and superintended the university's farm. These experiences

¹¹⁸⁸ On the Morrill Act, see Lee Stewart Duemer, "The Origins of the Morrill Land Grant Act of 1862: A Convergence of War and the Threat of War, Agricultural Influence, Modernization, and the American University Movement" (Ph.D. dissertation, University of Pittsburgh, 1996); Franklin M. Reck, *The 4-H Story: A History of 4-H Club Work* (Ames: The Iowa State College Press, 1951), 122.

¹¹⁸⁹ Because the state of Michigan established MAC in 1855, it used the Morrill Act to accept government lands and then sell them to support MAC as a land-grant university.

¹¹⁹⁰ By 1907, one publication said that the Michigan Agricultural College “stands for a vast educational revolution.” See E.P. Powell, "Agricultural Colleges and the People," *The Independent...* August 1 1907.

¹¹⁹¹ Fitzgerald, *The Business of Breeding*, 13.

¹¹⁹² *Ibid.* An organized movement for experiment stations came into being after 1875, when Connecticut established a state-supported agricultural experiment station. On experiment stations, see Baker et al., *Century of Service*, 24-25. For text of the Hatch Act, see

would serve him well in the coming decades, especially after 1895, when he became the Dean of the College of Agriculture at the University of Illinois.¹¹⁹³

Liberty Hyde Bailey, the Cornell horticulturalist who would promote the practice of “nature-study” as a means to transform rural education and thereby prepare children for the pressures of an increasingly capitalist society, also studied with Beal at MAC.¹¹⁹⁴ After leaving East Lansing in the early 1880s, Bailey moved to Harvard, where he worked with the botanist Asa Gray. Shortly thereafter, he found employment with the *American Cultivator*. Eventually, he returned to MAC to teach. This appointment proved brief, however, as Cornell University hired Bailey in 1888.¹¹⁹⁵ From his new home in Ithaca, Bailey began to bring the University to the people.¹¹⁹⁶ In 1894, he started two-week long “short courses” for New York farmers and convinced the New York State Legislature to pass an “Experiment Station Extension Bill.” This act funded Bailey’s goal of bringing the extension station’s work to rural New Yorkers.¹¹⁹⁷ Two years later, he began to circulate informative leaflets about agriculture among rural teachers.¹¹⁹⁸ In 1897, he began to promote nature study among youths as a means to develop the state’s agricultural potential.¹¹⁹⁹ And as we shall see, teachers across the Corn Belt adopted his methods in the years that followed.

Perry Greeley Holden became a third Beal disciple. Twenty-years old when he enrolled at MAC in 1885, Holden was also Michigan-born and raised.¹²⁰⁰ In East

¹¹⁹³ Fitzgerald, *The Business of Breeding*, 76-77.

¹¹⁹⁴ On nature-study’s perceived utility in preparing children “for the pressures of modernity” and its adoption by reformers like Ernest Thomas Seton, see Deloria, *Playing Indian*, 106, 109. For more on the movement, Bailey, and modern environmentalism, see Kevin C. Armitage, *The Nature Study Movement: The Forgotten Popularizer of America’s Conservation Ethic* (Lawrence: University Press of Kansas, 2009); Ben A. Minter, *Tilling the Holy Earth: Liberty Hyde Bailey and the Roots of Agrarian Environmentalism* (Boston: MIT Press, forthcoming).

¹¹⁹⁵ For biographical background, see Elaine Engst, “Liberty Hyde Bailey, a Man for All Seasons,” Division of Rare and Manuscript Collections, Cornell University, <http://rmc.library.cornell.edu/bailey/index.html>; Allan Carlson, *The New Agrarian Mind: The Movement toward Decentralist Thought in Twentieth-Century America* (New Brunswick: Transaction Publishers, 2004). On nature study, see Thomas R. Wessel and Marilyn Wessel, *4-H: An American Idea* (Chevy Chase: National 4-H Council, 1982), 3.

¹¹⁹⁶ Carlson, *The New Agrarian Mind*, 8-9.

¹¹⁹⁷ “Introduction,” n.d., 6; IIB2 BAE; Porter Collection (PC); Series XI, Box 13; National Agriculture Library (NAL), Beltsville, Maryland.

Reck, *The 4-H Story*, 9.

¹¹⁹⁸ Ibid.

¹¹⁹⁹ Engst, “A Man for All Seasons.”

¹²⁰⁰ “All of Us,” *Farm Journal*; PGHP; Box 1, Folder 1/1 Newspaper Clippings Printed Materials 1906-1967; IAST.

Lansing, he also found himself under Davenport's tutelage, and for a time, they worked together on corn at the Michigan Experiment Station. Holden and Davenport would eventually resume their collaboration at the University of Illinois. In 1895, Davenport convinced the trustees of the University to separate crop from animal science and, within the newly specialized field, to prioritize studying Indian corn at the Illinois State Experiment Station.¹²⁰¹ Like other experiment stations around the country, the Illinois station was affiliated with the state's land grant university. Given Holden's credentials and their history together, Davenport hired the younger man as an "assistant professor of agricultural physics" in 1896, where he worked on corn breeding until 1900.¹²⁰²

"THE CLASS OF MEN WE ARE TO APPROACH." THE WORLD OF AGRICULTURAL LEADERS

Though Beal's work on corn breeding sparked the imaginations of students like Davenport, Bailey, and Holden, it did not captivate most American farmers. As Bailey's interest in extension work in the 1890s suggests, as Davenport would discover soon after assuming the helm at Illinois, and as Holden's own extension work in Iowa during the following decade would demonstrate, a "serious lag" existed between academics' discoveries and the agricultural practices utilized by the majority of American farmers.¹²⁰³ Extension stations around the country considered the prospect of sharing their discoveries with the average American farmer an uphill battle. At the 1891 convention of the recently formed Association of Agricultural Colleges and Experiment Stations, attendees commiserated that "the people with whom we have to deal...the class of men that we are to approach" had largely "ceased going to school at 14, 16, or 18 years of age." Moreover, they added, "nine tenths of our farmers went no further than the district school, while the other tenth...went to the academy, and one in five hundred or a

¹²⁰¹ Fitzgerald, *The Business of Breeding*, 17.

¹²⁰² "All of Us," *Farm Journal*, in PGHP; Box 1, Folder 1/1 Newspaper Clippings Printed Materials 1906-1967; IAST. On Davenport's graduation, see William James Beal, *History of the Michigan Agricultural College and Biographical Sketches of Trustees and Professors* (Lansing: Wynkoop Hallenbeck Crawford Co., 1915), 429-430. On Holden's 1896 hire and 1900 departure, see Fitzgerald, *The Business of Breeding*, 15, 22.

¹²⁰³ Reck, *The 4-H Story*, 122.

thousand went to college.”¹²⁰⁴ These educational gaps, they recognized, did not encourage most farmers to utilize experiment station research.

This was all too evident when Davenport assessed student enrollment in agriculture courses at Illinois and became dismayed with their lack of interest in pursuing a formal agricultural education.¹²⁰⁵ To boost enrollment in the College of Agriculture, he began to work with county-based Farmers’ Institutes to lobby for increased state funding for the agricultural college. Farmers’ Institutes took firm root in Midwestern states during the 1870s and 1880s, having appeared in New England during the late 1830s.¹²⁰⁶ According to Deborah Fitzgerald, these organizations were loosely affiliated groups of “successful farmers and rural educators, who wanted to take the lessons of progressive agriculture to local farmers.” They differed, moreover, from organizations like the Farmers’ Alliance and the Grange in the sense that they were more pedagogical than political.¹²⁰⁷ Given that Farmers’ Institutes existed in nearly half of Illinois counties by 1894, it was reasonable for Davenport to attempt to organize them to advocate for increased state funding for the university’s programs. By the end of his first year at Illinois, Davenport and leaders of various county institutes successfully petitioned the state legislature to form the “Illinois Farmers’ Institute...as a permanent association “to assist and encourage useful education among farmers and for developing agricultural resources of the State.””¹²⁰⁸ This was one step, then, in bridging the apparent gaps between the University and the people whom it sought to serve.

Despite Davenport’s efforts to generate financial support for the College and his success, over time, in boosting enrollment, agricultural researchers at land grant universities and state experiment stations were attuned to the fact that their work still did

¹²⁰⁴ USDA, *Proceedings of the Fifth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations...1891* (Washington: Government Printing Office, 1892), 62.

¹²⁰⁵ Under-enrollment in academic agricultural studies, Deborah Fitzgerald has explained, had a number of causes. First, low numbers of students willing to enter programs in agriculture “reflected the general underdevelopment of rural education.” Moreover, farmers were skeptical of how formal agricultural education would benefit them. Finally, rural students who made it to universities like Illinois were few in number, and the majority of them pursued other tracks of study before committing to agricultural studies as juniors or seniors. Fitzgerald, *The Business of Breeding*, 78.

¹²⁰⁶ Moss and Lass, "A History of Farmers Institutes," 150-151. See also Liberty H. Bailey, *Farmers' Institutes: History and Status in the United States and Canada* (Washington: Government Printing Office, 1900).

¹²⁰⁷ Fitzgerald, *The Business of Breeding*, 79-80.

¹²⁰⁸ *Ibid.*

not influence many of the practices that other segments of the farming population held dear. Surprisingly, this encompassed private corn breeders who raised corn seeds for sale to farmers in their vicinity. After Charles Darwin released his 1876 publication, *The Effects of Cross and Self Fertilization in the Vegetable Kingdom*, American corn breeders avoided conducting work that involved inbreeding the plant. This was a problem, as it turns out, because inbreeding corn—a process known as selfing—is an important step in the process of producing higher yielding crosses of hybrid corn. Private breeders’ aversion to the idea of selfing, however, meant that they avoided adopting Beal’s methods.¹²⁰⁹ Though research conducted at the University of Illinois in the late 1890s would eventually return breeders to inbreeding, they preferred to pursue better corn between the early 1890s and the early 1900s by cultivating kernels from ears exhibiting particular physical characteristics.

In 1890, a group of fifteen Illinois seed growers, including Eugene Funk, started to meet for the purpose of discussing how they might grow more corn. Eventually, they formed the Illinois Corn Breeders Association (ILCBA).¹²¹⁰ In 1891, one of their members—Orange Judd, the author, editor, and head of the self-named agricultural publishing empire—established a scorecard for judging corn at that fall’s Illinois State Fair. Under the belief that physical characteristics signaled the productive capacity of a given ear of corn, his scorecard valued an ear’s shape, apparent purity, ripeness, uniformity, length, and circumference. It also placed stock in the depth and shape of the sample ear’s kernels, the spaces between its rows of corn, and the ratio between its cob and grain diameters.¹²¹¹ The winner of that contest was none other than James Reid, whose long-selected “Reid’s Yellow Dent” corn—the cross between northern flint and southern dent varieties which would become even more famous in Chicago two years hence—merited him “the grand sweepstakes ribbon, fifty dollars in money, and a right famous style of breaking plow.”¹²¹²

¹²⁰⁹ Ibid., 13, 24, 28.

¹²¹⁰ Ibid., 141-142.

¹²¹¹ Plumb, *Indian Corn Culture*, 57.

¹²¹² This was the first fair where James Reid’s Yellow Dent (see Chapter 1) won first prize. See Perry G. Holden, “James Reid and His Yellow Dent,” *Wallace’s Farmer*, December 24, 1920 and Paul De Kruif, “Men Who Put New Blood in Corn,” *The Country Gentleman*, August 1927, both in PGHP; Box 1, Folder 1/2 Addresses and Speeches, 1912-1920, n.d; IAST.

The effects of that first scorecard were tremendous. For the next fifteen years, farmers in Illinois and around the Corn Belt began to select, judge, and plant large, aesthetically pleasing ears of corn which corresponded with the ILCBA's guidelines for roughly indented kernels, under the belief that ears exhibiting those characteristics would yield the greatest amount of corn.¹²¹³ As one writer later noted, this brainchild of Orange Judd and the other men in the ILCBA "was the beginning, of the big, handsome, cylindrical, ten-inch, rough-dented ear that...won countless dollars in prizes."¹²¹⁴

Other agricultural leaders propagated Judd's method and ideals. In 1895, for instance, the Moline-based E.S. Teagarden published *Growing Corn Successfully: A Treatise on Corn Culture From Plowing and Planting to Harvesting and Marketing*. As with his peers, Teagarden was interested in increasing his state's corn crop. "By selection and care," he wrote, the farmer would be able to increase the weight of each ear of corn and thereby get more "from a given area." And by boosting yields in this way, he explained, the farmer would eventually "reduce the cost of the crop to a paying point." The method of seed selection he proposed, however, was quite rudimentary: "The largest ear with the largest and deepest grains," he concluded, "will make the best selection."¹²¹⁵

Perry Holden, who undertook more research on corn breeding upon arriving at Illinois, helped codify such preferences when, in 1897, he "originated "corn judging" and first introduced corn as a subject for study at the Illinois Agricultural College."¹²¹⁶ In these classes, groups of young men with tape measures around their necks and scorecards in their hands weighed, measured, and otherwise parsed the virtues of particular corn arrays. Something similar took place when the Illinois Corn Growers' Association (ILCGA), another Davenport-influenced group of agricultural leaders, convened in

¹²¹³ Fitzgerald, *The Business of Breeding*, 12, 141-142.

¹²¹⁴ Paul De Kruiif, "Men Who Put New Blood in Corn," *The Country Gentleman*, August 1927, in PGHP; Box 1, Folder 1/2 Addresses and Speeches, 1912-1920, n.d; IAST.

¹²¹⁵ E.S. Teagarden, *Growing Corn Successfully: A Treatise on Corn Culture from Plowing and Planting to Harvesting and Marketing* (Moline: The Western Plowman, 1895), 5-8.

¹²¹⁶ Kansas State Agricultural College, "Kansas to the Front," *The Industrialist* 31, no. 12 (1904): 187. Note that the University of Illinois has published course guides for the 1896-1897 and 1897-1898 academic years. During these years, Holden's classes were Crop Production (which included instruction on germination), Origins and classes of soil, Fertility (which promoted crop rotation), and Soils (bio, chem., physical properties). If Holden did anything in 1897, as *The Industrialist* claims, it would have been within Crop Production. See *Catalog of the University of Illinois, 1896-1897*, (Urbana: The University of Illinois, 1896); *Catalog of the University of Illinois, 1897-1898*, (Urbana: The University of Illinois, 1897).

1898.¹²¹⁷ In the ensuing years, their actions entrenched the popular idea that corn yields could be improved by selecting for physical characteristics. [Image 6.4]



Image 6.4 / Class in Corn Judging, Illinois College of Agriculture, c. 1902.

In October of 1899, the newly organized ILCGA built on Judd's early scorecard and Holden's coursework by sponsoring the nation's first Corn Exposition. For five days, the city of Peoria played host to a select group of corn breeders, agricultural professors, and editors of agricultural newspapers. The ILCGA used their inaugural convention to discuss improving their corn by judging and, in a cyclical fashion, to qualify judges for future corn contests. They also encouraged members to exhibit their finest ten ears of corn—a sample size that became standard in judging contests—and used railroad passes, housewares, and cash to reward the best selections.¹²¹⁸

¹²¹⁷ Davenport helped create ILCGA in hopes that they would lobby the state legislature on behalf of the experiment station's interests and advise the college. Members of this organization, Fitzgerald explains, "were concerned primarily with sponsoring corn shows." Fitzgerald, *The Business of Breeding*, 82-83. Their first meeting was in 1898, according to "The Illinois Corn Growers' Association," *The American Farmer Magazine*, September 1899, 262.

¹²¹⁸ "The Illinois Corn Growers' Association," 262. This article states that the October Exposition would be the second annual convention of the ILCGA and that membership "is restricted to farmers actively engaged in growing corn, professors of agriculture and editors of agricultural papers." For prizes offered, see "The Corn Exposition," *School and Home Education* xviii, no. 2 (1899): xviii. Notably, the ILCGA also donated some of their corn samples to the U.S. Commission to the Paris Exposition, which displayed them in France the following year as examples of American agricultural progress. See Ferdinand W. Peck, "Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900, Vol. 4," (Government Publishing Office, 1901), 318.

To the organizers of the Peoria exposition, their event, like the livestock competitions at state fairs to which they harkened, was an ideal means to improve Illinois corn yields. Indeed, when the ILCGA expanded their show in 1900 by offering no less than three hundred dollars “for the finest ten ears that could be presented,” press coverage praised this exposition as a “new sort of agricultural State fair[]” and an important “tool[] of agriculture” which brought interested persons together and encouraged them to “become careful investigators and students.”¹²¹⁹ By 1903, their conventions had become annual affairs through which they sought to “determine the best seed corn: that is, that which will yield the most corn of highest quality either for feeding or for market, and which consequently will bring the biggest profit to the grower.”¹²²⁰

A more tangible effect of the ILCGA’s existence, however, was the fact that other states soon adopted its structure as a model for creating their own corn growers’ associations. In Indiana, for example, a number of growers “agitated” the State Board of Agriculture for a Corn Growers’ Association for “a year or more” before convening in January, 1900.¹²²¹ Growers in Iowa and Missouri followed suit in 1902 and 1904.¹²²² These associations believed that standardized corn scorecards would help members take advantage of new industrial demands by defining and improving the yields of specific varieties of corn. Around the Corn Belt, much of the impetus for the new associations revolved around “changed conditions”—namely, the growth of industrial refining—which had come to “insure greater demand and consequently higher prices for corn and corn products.”¹²²³ Because glucose, starch, and bacon producers each valued different characteristics in a kernel of corn, noted W.H. Olin, an agronomy assistant at the Iowa

¹²¹⁹ “King Corn,” *The Independent... Devoted to the Consideration of Politics, Social and Economic Tendencies, History, Literature and the Arts*, November 8 1900.

¹²²⁰ *Premium List Peoria’s 5th Annual Corn Exposition, Peoria, ILL. Oct. 12 to 24, 1903*; Martin L. Mosher Papers, 1899-1979 (MLMP): RS 16/03/55; Box 7, Folder 17: Corn Shows, 1903, 1907-8, 1910, 1913, 1915-16, 1922-23, 1955; IAST.

¹²²¹ G.I. Christie, “Indiana Corn Growers’ Association,” in *Tenth Annual Report of the Indiana Corn Growers’ Association Annual Meeting at Purdue University, Lafayette, Indiana, January 12, 1910* (LaFayette: Burt-Haywood Co., 1910), 11.

¹²²² *Yearbook of the United States Department of Agriculture, 1902*, (Washington: Government Printing Office, 1903), 673; “Missouri Corn Growers’ Association,” *Missouri State Board of Agriculture, Monthly Bulletin* III, no. 7 (1903): 12-15; “Corn Improvement,” *Missouri State Board of Agriculture, Monthly Bulletin*, January 1906, 5.

¹²²³ “Third Annual Meeting of the Indiana Corn Growers’ Association,” in *Fifty-First Annual Report of the Indiana State Board of Agriculture Including The...Corn Growers’ Association... To the Governor* (Indianapolis: Wm. B. Burford, 1903), 589.

State Experiment Station, it would behoove the corn producer (and, by extension, the makers of corn scorecard standards) to select seed ears expressing the characteristics that promised to bring farmers the greatest profit.¹²²⁴ At the same time, overall quantity was still a foremost goal: according to Holden, “The one great object of corn judging is to learn to select that ear for our seed that will produce the greatest yield.”¹²²⁵ Thus, stated James Riley, a founding member of the INCGA, growers’ “use” of the “the score card...in the show ring” would eventually cause “entire satisfaction” across the Corn Belt.¹²²⁶



Image 6.5 / “Uniform Ears—the type, slope, color, and indentation are uniform,” 1903.

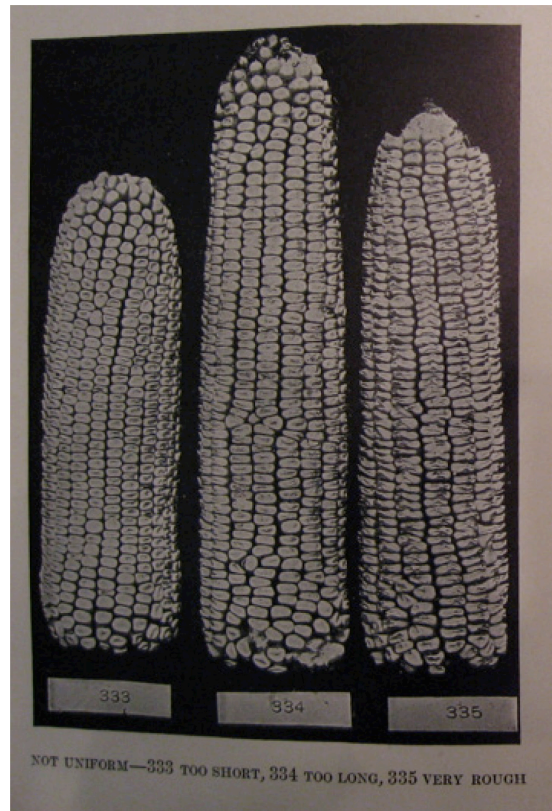


Image 6.6 / “Not Uniform—333 too short, 334 too long, 335 very rough,” 1903.

While university research projects, corn scorecards, corn expositions, and growers’ associations comprised major elements of agricultural leaders’ push to grow more corn at the turn of the twentieth century, agricultural authors like Teagarden hoped that progressive farmers would also use their texts to circulate new ideas among their

¹²²⁴ J.C. Simpson, ed., *The Iowa Year Book of Agriculture* (Des Moines: Bernard Murphy, 1904), 180.

¹²²⁵ *Ibid.*, 623.

¹²²⁶ *Forty-Ninth Annual Report of the Indiana State Board of Agriculture, 1899-1900*, vol. ZLI (Indianapolis: Wm. B. Burford, 1900), 689-690.

peers and thereby increase yields. Archibald Dixon Shamel, Perry Holden's student at Illinois from 1898 to 1900 and, between 1900 and 1902, his replacement there as an Instructor in Farm Crops, was especially important in this regard.¹²²⁷ An advocate of "produc[ing] the largest yield per acre most economically," Shamel saw seed improvement as a key step in that direction.¹²²⁸ Towards that end, he established new "standards of perfection" for corn judging contests, convinced both the ILCGA and the Illinois Seed Corn Breeders' Association to adopt his revised scorecards, and published them in his 1902 *Manual of Corn Judging*, which received great acclaim.¹²²⁹ Laden with photographs of ideal ears [Image 6.5] and models of problematic ones, [Image 6.6] the text also contained samples of different states' scorecards. According to a second edition, popular interest in the first "quickly exhausted" the publisher's supplies. Indeed, he asserted in 1903, his first *Manual* "was found to be useful in the work of the various schools of corn judging, farmers' institutes, fairs and like places, where corn was studied." That year, therefore, the Orange Judd Company not only published a second edition but it also included his scorecard and instructions for corn judging in another publication.¹²³⁰ In state after state thereafter, progressive participants in corn judging contests selected the ten ears of corn from their fields which epitomized Shamel's standards and judges rewarded those which fit the bill.

TOWARDS EXTENSION: PERRY HOLDEN

But to truly transform farmers' practices—to revolutionize the quantities of corn and other crops that they produced—corporations, the agricultural press, and universities recognized that they couldn't just publish books or form private associations: they needed to work directly with the nation's farmers. This is where Perry Holden—Beal's former student, Davenport's colleague, and Shamel's teacher—would excel. In March of 1900, Holden left the University of Illinois to manage the Illinois Sugar Refining Company, a

¹²²⁷ George Harrison Shull, "Beginnings of the Heterosis Concept," in *Heterosis: A Record of Researches Directed toward Explaining and Utilizing the Vigor of Hybrids*, ed. John W. Gowen (Ames: Iowa State College Press, 1952), 16-17.

¹²²⁸ "Third Annual Meeting of the Indiana Corn Growers' Association," 590-591.

¹²²⁹ Archibald Dixon Shamel, *Manual of Corn Judging* (Urbana: A. D. Shamel, 1902), 4, 5, 9.

¹²³⁰ ———, *Manual of Corn Judging* (Chicago: Orange Judd Co., 1903); Herbert Myrick, ed., *The Book of Corn: A Complete Treatise Upon the Culture, Marketing and Uses of Maize in America and Elsewhere* (New York: Orange Judd Co., 1903).

sugar beet concern in Pekin, Illinois.¹²³¹ While there, Holden worked with local farmers to improve their practices of sugar beet cultivation.¹²³² This, of course, made good business sense, for increased beet production would boost the raw materials that Holden's new employer might have at its disposal. The next year, however, the glucose interests who would become the Corn Products Company bought the sugar beet plant and put Holden out of a job.¹²³³ Meanwhile, Eugene Funk—who had been a founding member of the ILCGA in the early 1890s and was familiar with Holden's corn research—became interested in the public instructional work Holden had done with sugar beets. Around the end of 1901, Funk hired the former professor to help establish the new seed corn company he and his relatives were founding.¹²³⁴ Inspired by French sugar beet breeders, Funk and fourteen of his relatives had consolidated more than 20,000 acres of inherited land and, in 1901, set out to establish their company as a leader in American seed corn production. Though Holden was their second choice for a scientist to spearhead their efforts (behind Shamel), the Funk Brothers Seed Company believed that Holden would make notable gains in the quality of the seed corn they hoped to offer for sale.¹²³⁵

By the turn of the century, however, Eugene Funk had become increasingly skeptical of selecting corn based on aesthetics alone. After several years of breeding for the "rough[ly dented] kernels" that scorecards were promoting, his corn yields, he later recalled, "went all to pieces."¹²³⁶ He decided, therefore, to adopt a method that another researcher at the University of Illinois had recently pioneered. In 1899, Cyril Hopkins, a professor of corn chemistry, had published the benefits of "ear-to-row testing," in which the breeder or scientist planted an entire row of corn with kernels taken from a particular ear. This enabled students of corn to make accurate studies of individual plant lineages

¹²³¹ Fitzgerald, *The Business of Breeding*, 22.

¹²³² Lester S. Ivans, *Fifty Famous Farmers* (The MacMillan Company, 1924), 87. For a study of the Midwestern sugar beet industry (as far as it developed in Michigan) at this time, see Kathleen Anne Mapes, "Defining the Boundaries: Family Farmers, Migrant Labor, Industrial Agriculture, and the State in the Rural Midwest, 1898--1938" (Ph.D. Dissertation, University of Illinois at Urbana-Champaign, 2000).

¹²³³ Troyer, "Development of Hybrid Corn," 98.

¹²³⁴ Fitzgerald, *The Business of Breeding*, 22, 133, 137.

¹²³⁵ Perry G. Holden, "James Reid and His Yellow Dent," *Wallace's Farmer*, December 24, 1920, in PGHP; Box 1, Folder 1/2 Addresses and Speeches, 1912-1920, n.d; IAST; Troyer, "Development of Hybrid Corn," 94; Fitzgerald, *The Business of Breeding*, 136-137. See also P.G. Holden, *Presentation of Portrait of Eugene D. Funk, Sr., to the Saddle and Sirloin Club at Union Stock Yards, Chicago, Illinois, November 30, 1941*, in Perry G. Holden, *Photo Album [and Family History]*, 121; PGHP, box 2; IAST.

¹²³⁶ Fitzgerald, *The Business of Breeding*, 142.

for the first time.¹²³⁷ Inspired, Funk used the new method to compare the yields of “rough” ears of corn—the kind standardized by and rewarded in corn judging contests—versus those with “smooth” kernels over a number of years.¹²³⁸ When Holden began at Funk Brothers, Funk was in the middle of these tests. Holden and other company researchers used the ear-to-row method to select the most promising of the 2,500 bushels of seed corn that the Funks had bought from breeders around the corn belt.¹²³⁹

Though Holden’s work with the Funks benefited both parties, he did not stay with that company for long. In January of 1902, while still a Funk employee, Holden gave a “short course” in methods of corn selection to farmers gathered at Iowa State. While there, he commanded the attention of the university’s President and the Dean of agriculture, who—with the help of other Iowa agricultural leaders—convinced him to join their faculty.¹²⁴⁰ Sensible to the work that a man of Holden’s experience might accomplish among Iowa farmers—and to the ways in which his activities might serve their interests—the editors of *Wallace’s Farmer*, the Iowa Grain Dealers’ Association, and two leading Iowa farmers helped defray the cost of Holden’s hire.¹²⁴¹

When Holden arrived to Ames in 1902, therefore, his studies at Michigan Agricultural College, his time at the University of Illinois, and his recent work on the Funk Brothers’ 25,000 acres of cornfields had given him, a student would later recall, “a keen appreciation of the poor quality of seed corn that was being planted by Corn Belt farmers.”¹²⁴² One of Holden’s first orders of business was to ascertain whether the corn then being cultivated at the Iowa Experiment Station in Ames would grow elsewhere in the state. A related and even more pressing issue, however, was whether Iowa farmers would work with the Station’s representatives.

¹²³⁷ Ibid., 18-20; Troyer, "Development of Hybrid Corn," 94.

¹²³⁸ Fitzgerald, *The Business of Breeding*, 142.

¹²³⁹ Troyer, "Development of Hybrid Corn," 94; Fitzgerald, *The Business of Breeding*, 139-141.

¹²⁴⁰ Iowa State University, "Center for Industrial Research and Service (Ciras) History," Iowa State University, <http://www.ciras.iastate.edu/history.asp>. "Introduction," n.d., 7; PC; IIB2 BAE; Series XI, Box 13; NAL. For a photograph and a short note about this, see Perry G. Holden, *Photo Album [and Family History]*, 183; PGHP, box 2; IAST.

¹²⁴¹ Ivans, *Fifty Famous Farmers*, 404.; Perry G. Holden, *Photo Album [and Family History]*, 101; PGHP, box 2; IAST.

¹²⁴² Martin L. Mosher, *Early Iowa Corn Yield Tests and Later Related Programs* (Ames: Iowa State University Press, 1962), 15.

In the spring of 1903, Holden addressed both of these questions when he turned to the people of Hull, Iowa, some 200 miles away. Working with the Sioux County Farmers' Institute and its Board of Supervisors, Holden planted corn donated by local farmers next to seeds contributed by the Iowa Experiment Station. By the end of the season, his plats showed county residents that all seeds were not created equal; when planted, kernels from some ears of corn would germinate at better rates and therefore yield greater amounts of grain than others, even when labor inputs and land conditions remained the same. According to Martin Mosher, his student at Iowa State Agricultural College and a future corn apostle himself, this "Farmers' Variety Test" comprised the first instance of cooperative agricultural extension between a land grant university and a county-based Farmers' Institute.¹²⁴³ In other words, it brought progressive agricultural science from academic halls (or fields) of learning to Iowa farmers and worked with them to demonstrate the process of discovery. In so doing, it laid an important foundation for the work Holden would undertake as Iowa State's first professor of agricultural extension and later, as an extension leader within the International Harvester Company.¹²⁴⁴

Holden also sought to increase the quality of Iowa seed corn by offering "elementary work in corn judging" at Iowa State in the winter of 1903.¹²⁴⁵ Working beyond the university, however, remained an important Holden goal. The next year, his new employer established a formal "Corn Judging School" and opened it to farmers from across the Corn Belt. In January of 1904, seven hundred and fifty farmers from fifteen states, Canada, and nearly every county in Iowa descended upon Ames to talk, show, and judge corn.¹²⁴⁶ For ten days, beginners met in a \$16,000 building created especially to "study...the many points which have to do with the breeding, selection and storing of seed corn," while professors shepherded advanced students to classes in the Farm

¹²⁴³ Ibid., 15-16. For more on Mosher, see M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962]. Accession # 571361, IAST. Special Collections in the National Agriculture Library also has some of Mosher's items.

¹²⁴⁴ Hal S. Barron notes that Hull, Iowa had been the site of a co-operative grain elevator movement as early as 1893, and that its ethnic homogeneity—it was populated largely by "Hollanders"—enabled an exceptionally cooperative spirit. See Hal S. Barron, *Mixed Harvest: The Second Great Transformation in the Rural North, 1870-1930* (Chapel Hill: The University of North Carolina Press, 1997), 123. For Holden's later work with International Harvester, his scrapbooks at the Wisconsin State Historic Society and Iowa State Special Collections are especially helpful.

¹²⁴⁵ "Corn Judging School at Iowa State College, Ames, Iowa January 4th to 16th, 1904," *Bulletin Iowa State College* 1, no. 3 (1903).

¹²⁴⁶ Simpson, ed., *The Iowa Year Book of Agriculture*, 622.

Mechanics Hall nearby.¹²⁴⁷ In these courses, farmer-students of all ages learned to select the most promising ears to plant in the ear-to-row method. They also received prizes for their efforts.¹²⁴⁸ One student, fifty-seven year old John Parkinson, thought the school—and Holden’s fusion of Hopkins’s ear-to-row testing with the methods of scorecard-based selection—a great antidote to “haphazard” farming and believed that such measures would help other men like him “get waked up after a while.”¹²⁴⁹

THE SEED CORN GOSPEL TRAINS

News of Holden’s attempts to reach Iowa’s farmers quickly spread to other states.¹²⁵⁰ His real claim to fame, however, arose between 1904 and 1906, when he spearheaded the “seed corn gospel train” movement. After a killing frost arrived early in the fall of 1903 and brought fears of a chilled business climate along with unseasonably cold temperatures, one of two things happened. Either Iowa businessmen organized under the auspices of the state’s Grain Dealers’ Association (which had helped bring Holden to their state in 1902) turned to the corn leader for advice, or Holden used the early freeze to push his own work forward with the group.¹²⁵¹ According to one historian, the Grain Dealers’ Association of Iowa acted first. Formed in 1899, the organization began when 150 grain elevator operators organized to further their business interests, offer advice and services to fellow members, and promote their concerns among Iowa’s Congressional representatives.¹²⁵² By the winter of 1904, they knew that the corn

¹²⁴⁷ “Corn Judging School.”; Simpson, ed., *The Iowa Year Book of Agriculture*, 622.

¹²⁴⁸ The most eye-catching prize was the 36” tall bronze and glass Cook trophy. It would be awarded for the “three best ears [of corn] entered” in the contest and was designed to “represent[] the spirit of energy, skill, and accuracy of the modern corn breeder.” It epitomized corn breeders’ belief in the progress they had attained by juxtaposing “an Indian chief in war dress, representing the original conditions of the corn belt” with a miniature statue of “Charles Willard Cook, father of Albert E. Cook, who purchased the Brookmont farm when it was a wild prairie roamed over by the Indians” and was one of the men who had contributed towards Professor Holden’s Iowa State hire. The award also featured three cylinders, which would contain the award-winning ears, scales on the trophy (to “typify[] the exactness and accuracy needed in modern corn breeding”) and a “bronze globe of the world, with Iowa in relief.” See “Corn Judging School.”

¹²⁴⁹ Simpson, ed., *The Iowa Year Book of Agriculture*, 623.

¹²⁵⁰ In 1903, the Indiana Corn Growers’ Association established the Corn School at Purdue, and this institution eventually became the Purdue Farmers’ Short Course. Christie, “Indiana Corn Growers’ Association,” 9.

¹²⁵¹ For Holden’s allusion to this, see Perry G. Holden to “My Dear Dave,” October 31–November 1, 1943, Folder 1/3 Correspondence, 1908–1958, Box 1, PGHP, IAST.

¹²⁵² See <http://www.lib.iastate.edu/spcl/manuscripts/MS554.html> for a description of the Iowa Grain Dealers’ Association and notes on their subsequent mergers. Website refers to the Iowa Grain and Feed Association Records, 1951–1988, MS 554, IAST.

that farmers had planned to save for seed had frozen before having fully dried. As a result, they anticipated that large swaths of the kernels that farmers would plant during the coming spring would fail to germinate. The freeze, they believed, would depress their business and the commerce within related industries, like railroads. According to this version of events, officers in the Grain Dealers' Association turned to Holden, who had so recently proven the merits of his ideas about selecting seed corn to local farmers in the Farmers' Variety Tests, in hopes that he could somehow improve the business outlook for 1904.¹²⁵³ Another version of this story, however, suggests that Holden may have been the one to approach the Grain Dealers' Association and that he did so "with more ambition than discretion" because "[h]e needed help of some kind" in reaching the farmers "and the Grain Dealers' Association was strong with the railways."¹²⁵⁴



Image 6.7 / Holden's Ideal Corn Tester, c. 1908.

However the professor and the Grain Dealers Association came to see their partnership as mutually beneficial, Holden asked each member of the Association to approach three good farmers in his vicinity with the request that each send ten ears of high quality seed corn to Ames. Holden, in turn, would test the viability of their seeds in a device he called a germination box, so as to gage the general viability of the state's seed corn. **[Image 6.7]** Germination testing was nothing new to Holden, having included it in the courses he taught at Illinois between 1896 and 1897, but it was a novel concept for

¹²⁵³ Jacob A. Swisher, "The Corn Gospel Train," *The Palimpsest*, November 1947, 323.

¹²⁵⁴ Clifford V. Gregory, "Farming by Special Train," *Outlook*, April 1911, 918.

many Iowa farmers.¹²⁵⁵ After attempting to sprout sample kernels from more than 1,200 ears of corn during the first months of 1904, Holden determined that the early frost had rendered less than sixty per cent of Iowa's corn seeds viable. He also predicted that even fewer would germinate in Iowa's fields that spring.¹²⁵⁶

When the grain dealers convened in Des Moines during April, they asked Holden to speak to them. Having so recently ascertained the dire prospects for Iowa's corn, Holden brought both his germination box and the results of his tests to the grain dealers' banquet. The professor later recalled that his speech and the poorly germinating corn sprouts shocked the "bankers and railroad men and merchants" into action. "I said, 'What I want to tell you is of the very serious condition that is ahead of the businessmen... It must be very apparent to you what the harvest is to be next fall if the farmers plant such seed as this.'" Yet his speech was not only fire and brimstone: holding his audience in rapt attention for the remainder of the night, Holden assured the state's business leaders that he could increase the percentage of farmers' yields by demonstrating how each farmer might test the viability of his seed corn before planting commenced. Accessing those farmers in a timely manner, however, was the problem.¹²⁵⁷

Shortly after the banquet, "Uncle" Henry Wallace, the editor of the influential farm paper, *Wallace's Farmer*, spoke with W.H. Givens, a superintendent on the Chicago, Rock Island and Pacific Railroad, about Holden's dilemma of reaching Iowa's farmers.¹²⁵⁸ Extant evidence implies that Wallace—who could have been acting on ideas that arose during his conversations with the opportunistic Holden—suggested that Givens consider donating a train that the professor could use to speak to Iowa's farmers. Although Givens, as another historian has noted, was aware of the cultural divides between poorly-educated farmers and university-based agriculturalists and was uncertain whether "practical farmers... would leave their spring work to attend a lecture on seed corn by a college professor who raised corn in a 'hothouse,'" the superintendent consented.¹²⁵⁹ Indeed, from the C., R. I., & P.'s perspective, "[t]he argument for the

¹²⁵⁵ *Catalog of the University of Illinois, 1896-1897*, 121.

¹²⁵⁶ Swisher, "The Corn Gospel Train," 323.

¹²⁵⁷ *Ibid.*, 324.; Perry G. Holden, *Photo Album [and Family History]*, 101; PGHP, box 2; IAST.

¹²⁵⁸ On Givens' conversation with Wallace, see Perry G. Holden, "Iowa's Campaign for Better Seed Corn," *The American Monthly Review of Reviews*, November 1904, 564.

¹²⁵⁹ Swisher, "The Corn Gospel Train," 325.

cooperation was simple; the more corn the farmers could produce, the more freight there would be for the railroads to carry.”¹²⁶⁰ Within a few days of the banquet, the matter was settled and Givens offered to provide a special train on which Holden might demonstrate the methods and virtues of seed corn testing at each of the line’s stations. George Wells, the Secretary of the Iowa Grain Dealers’ Association, relayed Superintendent Givens’ offer to Holden soon thereafter and noted that the professor would be able to share his methods of germination-testing inside the trains, as the cars’ interiors would be fitted with charts, platforms, seats, and other necessary props.¹²⁶¹

After Holden rode the Rock Island and Pacific to great acclaim at the end of April, 1904, other lines emulated Givens’ donation. In this way, Iowa’s railroads and grain dealers enabled the university’s “apostles of scientific agriculture” to stop at some 100 stations and speak to no fewer than 17,600 farmers before planting commenced.¹²⁶² Indeed, though Holden had worried about turnout, farmers “came in great numbers,” thanks to efforts by railroads, grain dealers, and local newspapers.¹²⁶³ These organizations, which all stood to benefit from larger corn yields, posted “handbills...in every station,” instructed station agents and local dealers to “notify the farmers of the “seed corn special,”” and circulated news of the event.¹²⁶⁴ In this way, they also helped Holden entrench his reputation and enabled Iowa Agricultural College to extend its stature among the state’s farmers. Though we ought to take Holden’s own appraisal of his efforts with a grain of salt, he was probably not far off the mark when he surmised that the train—thanks to handbill hype and to grain dealers’ personal calls to farmers—“became the center of interest and conversation along the Rock Island line for days before it left Des Moines” and that, by the end of the year, his gospel of germination testing helped raise an “extra hundred million bushels of corn...in Iowa” alone.¹²⁶⁵

¹²⁶⁰ Ibid., 324. For more on railroads’ proclivity to circulate agricultural research among the farmers in their vicinity, see Roy V. Scott, “American Railroads and Agricultural Extension, 1900-1914: A Study in Railway Developmental Techniques,” *The Business History Review* 39, no. 1 (1965).

¹²⁶¹ Perry G. Holden, *Photo Album [and Family History]*, 101-102; PGHP, box 2; IAST. See also Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*, 112-113.

¹²⁶² Holden mentioned that two lines ran in 1904: the C., R. I. & P. and the Burlington. See Holden, “Iowa’s Campaign for Better Seed Corn,” 564-565. See also ““Corn Specials” And the Farmer,” *Chicago Daily Tribune*, January 30, 1905; Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*.

¹²⁶³ Perry G. Holden, *Photo Album [and Family History]*, 102; PGHP, box 2; IAST;

¹²⁶⁴ Holden, “Iowa’s Campaign for Better Seed Corn,” 564.

¹²⁶⁵ Ibid.

News of the special trains' efficacy in boosting Iowa's yields during what had been expected to be a sub-par year for corn traveled quickly. By January of 1905, the *Chicago Daily Tribune* reported that farmers' enthusiasm for more corn specials the coming spring was "evidence of [their] increasing interest in scientific agriculture" and of "more dollars," signs which "business men and railroads have been quick to see" and "extend...as far as possible." And while their praise of farmers' interests in scientific agriculture bordered on the effuse, the *Tribune* anticipated—with some degree of accuracy—that a new round of seed corn gospel trains would soon sweep across the Corn Belt.¹²⁶⁶ Indeed, the *Ohio Farmer* announced that Missouri would also operate corn specials "before corn planting time" during the spring of 1905. For its part, the publication reprinted Holden's words so that Ohio farmers might also learn from the corn evangelist's sermons.¹²⁶⁷

Holden extended his travels in 1905 with the help of Iowa's grain dealers, the railroads, the agricultural press, and a group of assistants he gathered from the university and the extension station. Wells, the Grain Dealers' Secretary who had originally conveyed the idea crafted by Wallace and Givens to Holden in 1904, took charge of organizing the second tour, which utilized five or six separate railroad lines.¹²⁶⁸ Wells may have also had a hand in circulating "more than 200,000 copies" of "Selecting and Preparing Seed Corn," a bulletin prepared by Iowa's Agricultural Experiment Station.¹²⁶⁹ New railroad lines participated in the scheme, as well. This, however, was not surprising. Their "interest," Mosher asserted, "is in the line of promoting a better type of agriculture on the farms tributary to their roads; better crops meaning more traffic for them." He estimated that each company spent about \$15,000 to promote and run the trains, which featured "three commodious passenger coaches for audience rooms, and two private cars for the accommodation of the lecturing force."¹²⁷⁰

¹²⁶⁶ ""Corn Specials" And the Farmer."

¹²⁶⁷ "The Corn Gospel Trains," *Ohio Farmer*, March 11, 1905.

¹²⁶⁸ Swisher, "The Corn Gospel Train," 329. The diary only contains references to five lines. See Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST. See also Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*, 116.

¹²⁶⁹ Swisher, "The Corn Gospel Train," 332.

¹²⁷⁰ Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*, 113, 116; "The Corn Gospel Trains."

Between February and April of 1905, Holden and five other men from Ames, including his student, Martin Mosher, made nearly 600 talks about seed corn across Iowa.¹²⁷¹ **[Image 6.8]** According to a reconstruction of the average lecture, the speakers regularly opened their thirty-minute talks by telling audiences how “bad, very bad” their seed corn was and by predicting that the farmers’ yields were certain to decrease under their nonscientific methods of seed selection. For evidence, they simply pointed to Holden’s own 1903 Farmers’ Varsity Test and to similar experiments that he had undertaken elsewhere in Iowa during 1904. These revealed shocking differences, the speakers explained, among the “vitality of the seed” planted by various Iowa farmers. Poor yields, they intimated, would stalk their audiences’ own fields if farmers refused to mend their ways.¹²⁷²

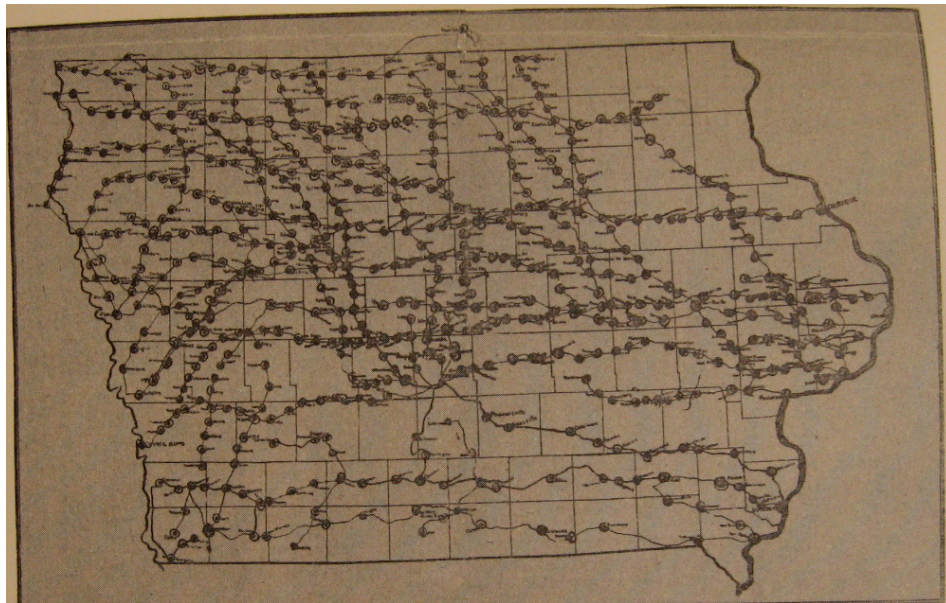


Image 6.8 / “Map showing stops made by the Seed Corn Special,” 1905.

But to farmers who, thanks to the apostles’ speeches, became worried about the yield losses that Holden foretold and desired to convert to better methods, the men from Ames offered salvation by way of science. “[Y]ou can do something about it,” Holden and the others insisted. “There is still time. We...are here to tell and show each of you how you can select the 50- to 70-bushel seed out of the 20- to 60- bushel seed which you

¹²⁷¹ Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*, 7, 116.

¹²⁷² Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST.

will plant unless you do something about it.” And to those who might have remained skeptical of converting to new methods—those who, perhaps, recalled both the corn surpluses and the volatile prices marring previous harvests—Holden and his peers insisted that the nation’s thriving industrial economy was making overabundance a thing of the past. “Factories are competing with cattle and hog feeders for your surplus corn,” they explained. “You need not be afraid of raising too much corn.” With their audiences now, by and large, eager to glean all possible wisdom from the corn evangelists, Holden and the others unleashed the heart of their message: “Select heavy, solid ears; Test each ear; Shell each ear by itself; Test the planter; Plant the best ears in a seed plot.” Then, after demonstrating the utility of the germination tester, showing how to make it, and explaining the financial benefits of planting only the seeds which were most likely to grow, their train would blow its whistle and move on to the next station.¹²⁷³ **[Image 6.9]**



Image 6.9 / Listening to a lecture on the “Seed Corn Special,” 1905.

Mosher would later recall audiences of corn growers as having manifested nothing but “[t]he greatest interest and enthusiasm” for their lectures.¹²⁷⁴ And by and large, a typescript made from a diary kept during the 1905 tour reveals the same. The

¹²⁷³ Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST. See also Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*, 113-114.

¹²⁷⁴ *Ibid.*, 114.

town of Peterson, for example, turned out 500 people to greet the corn train. Among them was one “Capt. Lyons” who not only “fire[d] a salute at his country place as the train passe[d]” but also presented Holden with two keys, one “which will unlock to you all the corn cribs in this community” and the other to “unlock the hearts and minds of the people of the vicinity of Peterson.” Likewise, after attending the lecturers’ talk in Lake City, J.S. Trigg, the editor of the *Iowa State Register* who would write a glowing article on the corn trains two months later, predicted that children there would be “called Holden” in future years. Individuals in the “small town” of Webster brought out an “eight piece band” for the occasion and promised to “listen with all our might.” Enthusiasm was so great in Forrest City that a “Man on [the] platform stole [an] ear of corn,” perhaps in the belief that the corn evangelists’ sample seeds might transform his own yields.¹²⁷⁵ **[Image 6.10]**



Image 6.10 / A “typical audience just leaving the speaking coaches of the “Corn Gospel Train” after listening to a 40-minute talk on Testing Seed Corn,” 1905.

While many of the 110,000 farmers they reached that year were white emigrants from eastern states, immigrants from Norway, Ireland, Bohemia, and especially Germany also listened to the corn apostles. In Remsen, for example, “All” of the 350 farmers in

¹²⁷⁵ Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST. For Trigg’s article, dated May 12, 1905 (which covered the entire front page), see Perry G. Holden, *Photo Album [and Family History]*, 155; PGHP, box 2; IAST.

attendance were “German farmers.”¹²⁷⁶ Given the frequency with which immigrants in settled in ethnically homogenous communities around the Midwest, this is not surprising.¹²⁷⁷ But as the presence of Norwegian *children* in the town of Kiron implies, and as the photo, above, of farm families gathered at the station and pasted into one of Holden’s scrapbooks shows, grown men did not form the entirety of the corn apostles’ audiences. A talk for 300 in Dennison was so popular among the town’s womenfolk that it merited a separate women’s car. Likewise, one speaker addressed “100 women and children in [the] third car” when the train stopped in Washta. So too, in Klemme, “Half” of the 200 people listening to the speakers were “women and kids,” while “50 women and girls” built up the evangelists’ audience of 200 people in Casey. Indeed, interested women made a strong impression on the men as they traveled around the state, as did children and the teachers and superintendents who wanted to use corn selection to vitalize rural education. “A number of school girls” listened “on [the train] platform” in Martel, for example, while “200 school children” heard Mosher speak when the train paused in Alta. In Carroll, one “Mrs. Wilson, principal of schools,” approached Holden and Wells about “introducing corn into public schools.” Likewise, the “Sup[er]int[endent] of schools [was] taking notes” when the train stopped at the Lone Rock station. And in the town of Victor at the end of March, “Two schoolm’ams” sat “in Bowman’s car.”¹²⁷⁸

In spite of the general enthusiasm, farmers occasionally responded to the corn apostles in ways that organizers did not anticipate. In some towns, farmers were simply blasé. In Underwood, the author of the train diary reported, “People are rather dead” while in Neola, “People are in a rut.” In Barnes, attendees included “Several women and town fellows who didn’t care.” But apathy was different than animosity, and the lecturers also encountered the latter. An audience in Marion, for instance, comprised “A hard lot to speak to.”¹²⁷⁹ Iowa’s “co-operative elevator people,” meanwhile, eyed what

¹²⁷⁶ Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST.

¹²⁷⁷ Barron, *Mixed Harvest*, 123-124.

¹²⁷⁸ Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905*. 1962. M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, Iowa State Special Collections, Ames, Iowa.

¹²⁷⁹ *Ibid.*

they called the “Wells-Holden corn specials” with particular distaste.¹²⁸⁰ Organized both at the county level, within cooperative grain elevators, and statewide, as the Farmers’ Grain Dealers Association, the “co-operative elevator people” were seeking to sidestep the members of the Grain Dealers’ Association, whose grain-pooling and price fixing they viewed as antithetical to their own interests.¹²⁸¹ It is not surprising, therefore, that the “co-operative elevator people” viewed Holden’s collaboration with Wells, the Secretary of “the power that...ruthlessly opposed them,” with tremendous animosity and that they received the corn trains accordingly.¹²⁸² Members of such co-operatives may well have been among the individuals, therefore, who greeted Holden and the other lecturers with occasional signs of contention: according to the apostles’ diary, “Two men in [the] fourth seat [in Scranton] bother[ed]” the speakers “by talking,” while “Three men laugh[ed] in [the] back of [the] car” in Otto.¹²⁸³

Even so, Martin Mosher was adamant that the 1905 tour, like that of 1904, was an unqualified success. “While at some places a few men were found who were at first skeptical of the practicality and value of the plan of testing seed corn presented,” he surmised, “there were few such to be found after the lecture was concluded.” Indeed, he even doubted whether the Iowa Agricultural College had done had ever been “so generally, helpfully and practically put within reach of the farmers of any state.” The result of their efforts, he predicted, was that Iowa farmers would pay “greater attention...to the quality of the seed corn...than ever before.”¹²⁸⁴

The seed corn specials attained material success, as well. According to one source, their efforts to improve the germination rate of Iowa corn crops by means of selection increased the state’s average yield by nearly two and a half bushels per acre

¹²⁸⁰ Gregory, "Farming by Special Train," 918.

¹²⁸¹ On the Farmers’ Grain Dealers Association, which was established in 1904, see Papers of the Farmers’ Grain Dealers Association, MsC 141, Special Collections Department, University of Iowa Libraries, Iowa City, IA. See also “Farmers’ Grain Dealers Association,” http://www.lib.uiowa.edu/spec-coll/MSC/ToMsc150/MsC141/MsC141_farmersgrain.html accessed November 4, 2010. On the origins of cooperative elevators as responses to grain pools, see Barron, *Mixed Harvest*, 107-154. On George Wells’ antipathy to their movement, see Barron, *Mixed Harvest*, 119-120.

¹²⁸² Gregory, "Farming by Special Train," 918.

¹²⁸³ Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST.

¹²⁸⁴ Mosher, *Early Iowa Corn Yield Tests and Later Related Programs*, 115.

between 1904 and 1908.¹²⁸⁵ The *Scientific American* elaborated, arguing that increased yields, courtesy of the trains' model of railroad-university cooperation, benefited farmers and businessmen alike.¹²⁸⁶ Other agricultural leaders concurred. A.I. Root, the Ohio-based editor of *Gleanings in Bee Culture*, explained that Holden's methods of corn improvement ultimately stood for rural civic rebirth: "The man who owns [a scientifically-selected cornfield] will be a better man," he wrote, and "his children will be better children, and his wife will be a better woman, and his neighbors around him will soon have a cornfield something like it. The boys and girls will get into a strife...to see who will beat; and pretty soon the whole locality will be on "higher ground.""¹²⁸⁷

With support like this resonating across the Corn Belt, Holden's seed corn gospel trains inspired railroads and experiment stations around the nation to adopt the model of traveling university lectures thereafter.¹²⁸⁸ Southern railroad representatives were interested in adapting the model for improving cotton yields in the south. They boarded at least one corn special "to see the workings of [the] train" as early as 1905.¹²⁸⁹ Through at least 1911, railroads around the country worked with experiment stations to promote improvements in corn, dairy, oat, cotton, rice, wheat, and even "breakfast bacon" production.¹²⁹⁰ By then, even Iowa's "co-operative people" had started to see that the trains could be valuable tools for increasing the quantity of crops to be sold.¹²⁹¹ And in Holden's own mind, the model he pioneered through the corn trains "was the real step leading to the establishment of Agricultural Extension" as a formal USDA concern and in prompting corporations like International Harvester to take the lessons of scientific agriculture directly to farmers across the United States and around the world.¹²⁹²

The corn seed gospel trains were among the most successful of the many tools which universities, railroads, and businessmen used to convince American farmers to

¹²⁸⁵ Gregory, "Farming by Special Train," 922.

¹²⁸⁶ Katherine Louise Smith, "A Lecture Room on a Railroad Train," *Scientific American*, April 6 1907.

¹²⁸⁷ A.I. Root, "Our Homes," *Gleanings in Bee Culture*, August 15 1906. Item housed in Perry G. Holden, *Photo Album [and Family History]*; PGHP, box 2; IAST.

¹²⁸⁸ Swisher, "The Corn Gospel Train," 333.

¹²⁸⁹ *Ibid.*, 332.; Martin L. Mosher, *Notes Taken on the Seed Corn Special Train February 13, 1904 to April 18, 1905* (1962); M.L. Mosher, Supplement to the book *Early Iowa Corn Yield Tests and Later Related Programs* [1962], 571361, IAST.

¹²⁹⁰ Gregory, "Farming by Special Train," 919-921.

¹²⁹¹ *Ibid.*, 918.

¹²⁹² Perry G. Holden, *Photo Album [and Family History]*, 102; PGHP, box 2; IAST.

adopt new agricultural methods during the first part of the twentieth century. And at a larger level, they convinced individuals within the USDA that farmers responded well to practical demonstrations and encouraged the department to build its own bureau of Agricultural Extension.

TOWARDS VITALIZED EDUCATION: YOUTH CORN CONTESTS

Though seed corn gospel trains, Farmers' Variety Tests, corn "Judging Schools," Farmers' Institutes, publications, and corn growers' associations all made inroads in agricultural leaders' tasks of convincing American farmers to practice new methods of corn production, the farmers who were interested in working with representatives from land grant universities and other progressive agricultural organizations were still, by and large, members of a self-selecting bunch. In 1902, for example, Horace Donaldson, Emeline Donaldson Guernsey's nephew, observed that "Farming on a scientific basis calls for smartest men" and expressed his "wish [that he] were the possessor of a quarter section in a well watered section and that [he] was smart also."¹²⁹³ Yet the majority of farmers at the turn of the century were not of Donaldson's ilk, and out of frustration with widespread apathy regarding scientific agriculture, agricultural leaders turned to youth-centered initiatives to transform farm productivity. In Macoupin County, Illinois, Will B. Otwell, the new secretary of the county Farmers' Institute, struggled to convince area farmers that they would benefit from the organization's approach to agricultural improvement. When Otwell, a nurseryman, organized an Institute meeting in February, 1898, the only members to appear were the other officers. And at a meeting at the end of the year, Otwell—who had become, almost by default, the President of his county's organization—encountered another paltry turnout.¹²⁹⁴

That winter, he "made up his mind to ignore the parents and concentrate on the boys" by creating a corn contest for county youths.¹²⁹⁵ After requesting samples of

¹²⁹³ Horace Donaldson to Relatives, July 4, 1902; GFP; box 5, folder 18; HL.

¹²⁹⁴ Reck, *The 4-H Story*, 20; Dick J. Crosby, "Boys' Agricultural Clubs," in *Yearbook of the United States Department of Agriculture, 1904* (Washington: Government Printing Office, 1905), 489.

¹²⁹⁵ Reck, *The 4-H Story*, 20. This kind of sentiment guided other progressives' attempts to reform Indian and immigrant youths on reservations and in settlement houses. In a more abstract manner, the idea of competitive youthful corn growing traced back to 1828, when a teacher in Butler County, Ohio, had students grow corn and other crops on small parcels of land "under the stimulus of competition." In 1856, newspaper editor Horace Greeley reanimated that idea when he sponsored a corn and carrot-growing

“first-class seed corn” from “leading corn growers in Iowa, Indiana, and Illinois,” Otwell asked twelve local farmers to meet with him at a local bank and identify the corn which would grow the best in their county. He proceeded to purchase and divide the kernels from those ears into seed packets. Soon after, he secured forty one-dollar cash premiums and, from a plow company, a “two-horse plow” to use as “a sweepstakes premium.” He also used local papers to notify boys under eighteen years about the forthcoming contest. To Otwell’s astonishment, five hundred youths responded. During the summer of 1899, the youngsters grew plots of corn, from which they selected their finest ten ears for display. And when they arrived at the county courthouse on the day of the contest, sample ears in tow, their interest “advertised the forthcoming Farmers’ Institute as no other medium could have done.”¹²⁹⁶

Agricultural leaders in other parts of the country also expressed excitement at the prospect of working with youths. But while they recognized farmers’ children as being far more impressionable than their parents, they also saw them as at risk for trading farm life for futures in the city.¹²⁹⁷ Many agreed with Liberty Hyde Bailey, back at Cornell, that the substance of most rural education programs—replete with exercises in banking-based arithmetic and literary readings about the successes of city dwellers—fueled many

contest for New York youths and required competitors to both exhibit their crops at the New York State Fair and circulate their cultivation narratives in the annals of the New York Agricultural Society. The next year, a similar contest took place in Iowa. After that, however, these sporadic, unorganized, and ad hoc corn contests went on a multi-decade hiatus. The only other instances before the turn of the century of which I am aware took place in 1882 and 1889. In the former, “Delaware College announced a state-wide corn contest for boys, each boy to plant a quarter acre according to instructions sent out from the college. Cash prizes, certificates, and subscriptions to *American Agriculturist* were the reward.” In the latter, the same magazine held a contest for largest yield of corn on one acre. Winning contestants hailed from South Carolina, New York and Nebraska. See Reck, *The 4-H Story*, 5; “Hon. Horace Greeley’s Premium for One Acre of Corn,” in *Transactions of the N.Y. State Agricultural Society* (Albany: C. Van Benthuyssen, 1856), 278-283; Wilbert La Tourrette, “Boy’s Corn Crop,” in *Fourth Annual Report of the State Agricultural Society, to the General Assembly, for the Year 1857* (Des Moines: J. Teesdale, 1858), 71-72; Plumb, *Indian Corn Culture*, 221-223.

¹²⁹⁶ Reck, *The 4-H Story*, 19-20; Crosby, “Boys’ Agricultural Clubs,” 489-490. See also E.N. Hopkins to C.W. Warburton, Nov. 10 1930, and Warburton to Hopkins, November 25, 1930; GC, Box 1486, Boys’ and Girls’ Clubs, 1930; RG 16; NACP.

¹²⁹⁷ In 1900, Liberty Hyde Bailey, by then leading the nature-study movement among New York youths from his position at Cornell, attributed many New Jersey farmers’ lack of interest in scientific agriculture to their earlier years. In rural areas, he explained, students suffered from “the influence of the teachers in the country schools, usually town or city girls” who spoke of nothing but life in the city. According to Bailey, these lady teachers were responsible for “the mischief” of “train[ing] the youth away from the farm” long before he began college. Quoted in Reck, *The 4-H Story*, 7.

youths' dissatisfaction with the prospect of leading agricultural lives.¹²⁹⁸ At the turn of the century, therefore, educational leaders across the Corn Belt decided that practical lessons about agriculture along the lines of Bailey's nature study work, especially extracurricular activities focused on corn, might both revitalize rural education and increase their interest in enrolling in agricultural programs of study.

In 1900, Albert B. Graham began superintending the Springfield Township schools in Clark County, Ohio. The next year, he surveyed students and teachers regarding the possibilities of creating "experiment" clubs for local boys and girls and called the first meeting in January of 1902. Over the ensuing months, they began to use microscopes, test local soils, and conduct other experiments.¹²⁹⁹ At the end of 1902, Graham contacted Bailey in hopes that New York's leading voice in extension and youth work might help Graham push his own students further along. Although Cornell had undertaken nothing like the experiment clubs that Graham had created, Bailey recommended that Graham approach one O.J. Kern for advice.¹³⁰⁰

Kern, the superintendent of schools in Winnebago County, Illinois, would have been an appropriate contact for Graham because his own students had just completed a year of cooperative work in corn and sugar beet study with representatives from the University of Illinois.¹³⁰¹ At the beginning of 1902, Arthur Dixon Shamel, who had just finished writing his *Manual on Corn Judging*, and Fred H. Rankin, whom Dean Eugene Davenport had recently hired to be a "liason" between the Illinois agricultural college and the county Farmers' Institutes, had approached Kern with the hopes of forming and supporting "a boys' experiment club." Though their goal, "to induce farm boys to attend the agricultural college" in Urbana, had been slightly different than Kern's own focus on vitalizing rural education, the superintendent had welcomed the interest that these University and Farmers' Institute representatives evinced in his schools. In February, therefore, Kern invited thirty-seven local boys to meet with Shamel and Rankin. During the spring of 1902, Kern, Rankin, Shamel, and the youths embarked on a new kind of

¹²⁹⁸ Ibid., 6.

¹²⁹⁹ Ibid., 12; Crosby, "Boys' Agricultural Clubs," 493. See also Warburton to Hopkins, November 25, 1930; GC, Box 1486, Boys' and Girls' Clubs, 1930; RG 16; NACP.

¹³⁰⁰ Reck, *The 4-H Story*, 12-13.

¹³⁰¹ Warburton to Hopkins, November 25, 1930; GC, Box 1486, Boys' and Girls' Clubs, 1930; RG 16; NACP.

cooperative effort: while the local Farmers' Institute gave each interested youth 500 kernels of seed corn, the experiment station mailed informational publications to the young cooperators. Meanwhile, the boys began cultivating their seeds and Kern's teachers supervised the boys' efforts. That June, to the university's pleasure, 280 "club members, their parents and other interested folks" traveled to Urbana "to study scientific agriculture."¹³⁰²

Although Bailey had suggested that Graham contact Kern for advice in establishing similar activities, the Ohio superintendent looked for wisdom closer to home. At the beginning of 1903, Graham approached Thomas F. Hunt, the Dean of agriculture at the Ohio State University, and communicated with the agricultural experiment station in Wooster. As in states like Iowa and Illinois, Ohio's agricultural researchers were hoping to disseminate new corn varieties among the state's farmers. They also wanted to share their discoveries about the utility of lime in combating soil acidity. Graham found willing partners, therefore, among a group of agricultural college graduates who had recently organized into a Union and were conducting demonstrations at the experiment station's expense. During the months that followed, the Union's secretary, L.H. Goddard, worked with Graham to create a series of events for boys in Ohio's Springfield township. While Goddard and the Union supplied "sacks of four kinds of seed corn so that boys could compare yields of these varieties with the kind grown by their fathers," volunteered "to supervise soil testing for acidity," and created report forms for both projects, Graham organized some eighty one children from his county into school-centered clubs for corn and garden crops and distributed Goddard's supplies among the youths. And much as Kern had done the previous year for his Winnebago County youths, Graham brought 100 students to Columbus in June, where their interest in scientific agriculture "amazed" Dean Hunt. Shortly thereafter, the Ohio State University published and distributed a bulletin about Graham's club around the state. This, in turn, prompted nine Ohio counties to create at least thirteen other clubs by the end of the

¹³⁰² Reck, *The 4-H Story*, 16-17. On Rankin's appt, see Fitzgerald, *The Business of Breeding*, 87-88. For more on Winnebago activities, including a cultivation narrative published by one Harry M'Farland, see Crosby, "Boys' Agricultural Clubs," 492-493.

year.¹³⁰³ By 1905, the university was so pleased with Graham's efforts that they hired him as the first superintendent of Extension within the College of Agriculture.¹³⁰⁴

Back in Illinois, meanwhile, Will Otwell's corn contest, which had become an annual event, continued to draw great acclaim. More than 1,500 Macoupin County youths entered that for 1901 and as many, if not more, clamored to join that of 1902. By 1903, the popularity of this youthful branch of the county's Farmers' Institute prompted the Governor of Illinois to ask Otwell to superintend the Illinois agricultural exhibit at the forthcoming 1904 Louisiana Purchase Exposition. After Otwell accepted the task, he organized a statewide corn competition to serve as the basis of the state's display in St. Louis. In the spring of 1903, Otwell sent a list of \$3,500 worth of prizes and information on the corn contest's rules to tens of thousands of rural Illinois youths. Soon thereafter, he circulated packets of corn seed to the 8,000 respondents who had expressed interest in competing. That fall, he organized ten-ear samples of corn from 1,250 contestants into two enormous pyramids—one featuring yellow corn, and the other white—for display in the agricultural palace. Once he arranged them in St. Louis, Otwell's piles of youth-grown precision and uniformity made a telling contrast with other states' artistic crop displays, which had, since Sioux City's corn palace years, become something of a standard genre. Instead of imaginative palaces or monuments like those that the state of Missouri crafted out of corn, Otwell used the boys' samples to emphasize the state's prospects in raising a banner crop of scientific agriculturalists, a message he reiterated by placing photographs of each cultivator alongside his ten-ear sample. **[Image 6.11]** Thoroughly impressed, a writer for the USDA's *Yearbook of Agriculture* could only imagine what this achievement implied for the future of American agricultural progress: "Eight thousand boys in a single State thoroughly aroused on the subject of improving corn! Think what power has been set in motion! And...to the improvement of rural conditions generally!"¹³⁰⁵

¹³⁰³ Reck, *The 4-H Story*, 14-16. Note that in Reck's book, fig 2.1 shows a photo of Graham's boys in 1904. Two students appear to be African American. This is surprising and merits further inquiry.

¹³⁰⁴ *Ibid.*, 15.

¹³⁰⁵ Crosby, "Boys' Agricultural Clubs," 491-492; Reck, *The 4-H Story*, 19-21. On Missouri's corn displays, which included a miniature corn palace as well as towers covered in white and yellow corn, see "Agriculture at the St. Louis World's Fair," *Missouri State Board of Agriculture Monthly Bulletin* IV, no. 6 (1904).

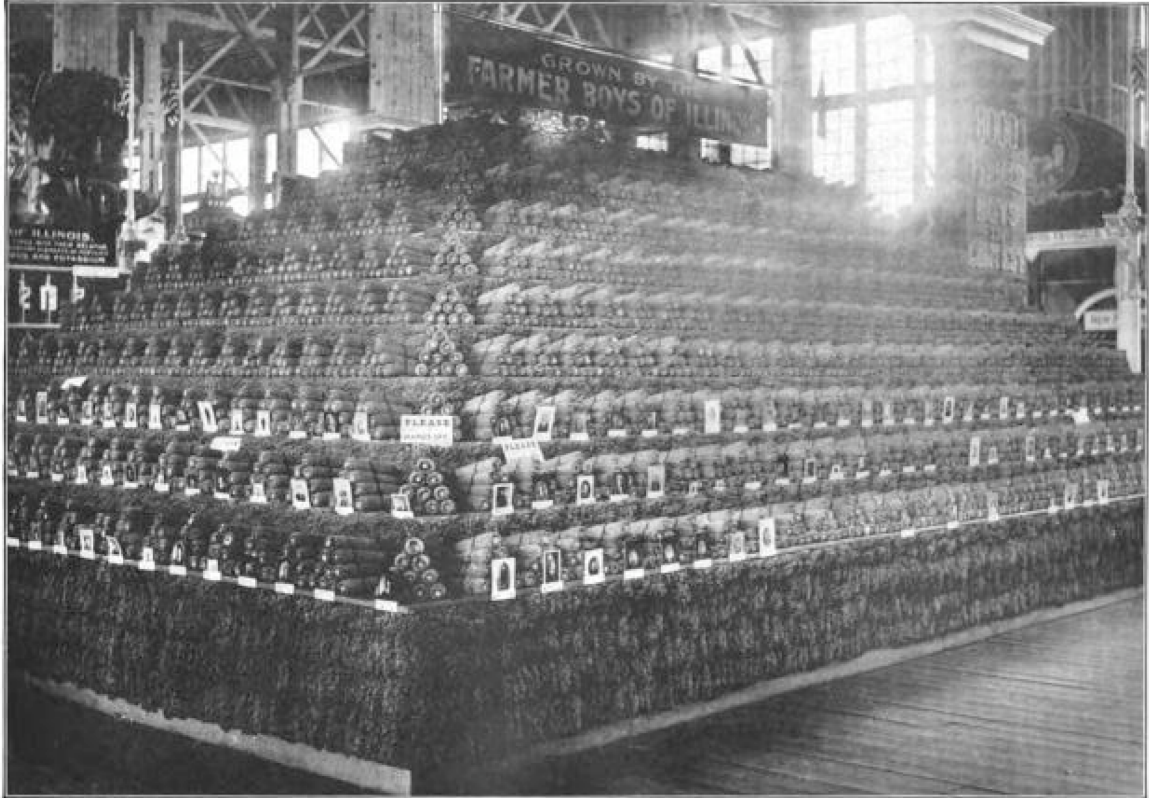


Image 6.11 / “Boys’ Exhibit of Corn at the St. Louis Exposition,” 1904.

By 1904, youthful club work rooted in corn selection, cultivation, and judging was thriving in Illinois and Ohio. It was also taking root in Iowa, and as we shall see, Texas.¹³⁰⁶ Soon, corn-centered collaborations among school superintendents, state universities, agricultural associations, farmers’ institutes, agricultural publishers, and the young farmers at whom they aimed would appear in Wisconsin, North Dakota, Georgia, and Nebraska, as well.¹³⁰⁷

Though examining each of these states’ developments would be tedious, those taking place in Nebraska presaged the local, state, and federal cooperation that would mark later years. In the fall of 1904, Jasper McBrien, Nebraska’s state superintendent of public instruction, appointed E.C. Bishop to be his deputy. Bishop had recently

¹³⁰⁶ While Indiana’s experiment clubs and New York’s co-educational Junior Naturalist work also made inroads in experimental work, it was the agricultural club work that caught the USDA’s attention. See Crosby, “Boys’ Agricultural Clubs.”; Reck, *The 4-H Story*, 17-19; W.C. Latta, *Indiana Farmers’ Institutes for the Year 1904-05* (Lafayette: Purdue University, 1905), 30-31, 38-39; Illinois Farmers’ Institute, “1904 Memorandum Book of Boys Corn Growing Experiments from Corn Sent by Illinois Farmers Institute,” (1904).

¹³⁰⁷ Reck, *The 4-H Story*, 24-25, 33-34; Charles W. Davis, *The Selection and Preparation of Seed Corn* (Atlanta: Byrd Printing Co., 1905).

introduced corn growing and other youth projects in rural schools in York county, Nebraska, and McBrien hoped to implement something similar statewide. The following spring, Bishop notified county superintendents that he was creating a Nebraska state corn contest. The superintendents were to share the new program with their students and let them know that the University of Nebraska at Lincoln would send packets of Reid's Yellow Dent corn seeds to the first 500 boys who expressed interest in competing and that they would use those seeds to grow ten-ear samples of corn in a contest that the superintendent would hold in December. Each contestant was also instructed to report on his corn-growing activities during the summer months.¹³⁰⁸ But because Nebraska's girls had been just as eager to join the corn work, they demanded a similar contest. In December, therefore, no fewer than 700 boys and girls journeyed to Lincoln to compete in corn growing and corn cooking contests. (Gendered norms to the contrary, many of the girls grew the corn that they eventually used in their bread-making competitions.)¹³⁰⁹ And although the boys and girls received gender-segregated lectures—speakers conveyed ideas about proper household management to the young ladies and taught them about corn-based foods while representatives from the USDA and the University of Nebraska informed the young men that their “principal purpose” would be “to raise more and better corn...by seed selection and by careful cultivation” and reminded them that the ultimate goal was “yield...the largest possible amount of shelled corn per acre”—all 700 youths shared a corn-themed banquet, made plans to hold a 1906 “Corn Contest and Convention,” and organized experiment and domestic science clubs in hopes of inspiring future work.¹³¹⁰ **[Images 6.12-6.13]**

¹³⁰⁸ Reck, *The 4-H Story*, 25-26; J.L. McBrien, *Twentieth Biennial Report of the State Superintendent of Public Instruction to the Governor of the State of Nebraska for the Biennium Beginning January 2, 1907 and Ending December 31, 1908*, vol. 32 (York, NE: T.R. Sedgwick, 1909), 216.

¹³⁰⁹ J.L. McBrien, *Nineteenth Biennial Report of the State Superintendent of Public Instruction to the Governor of the State of Nebraska for the Biennium Beginning January 2, 1905 and Ending January 2, 1907*, vol. 31 (York, NE: T.R. Sedgwick, 1907), 473, 433.
Reck, *The 4-H Story*, 26.

¹³¹⁰ McBrien, *Nineteenth Biennial Report*, 432-433, 447, 454-455.



Image 6.12 / “Section of corn exhibit in Agricultural Hall, 1905 Corn Contest.”



Image 6.13 / “One of the three sections of the “Corn Banquet” where 700 Nebraska boys and girls and a few of their friends were served, December 15, 1905.”

When John Hamilton, whom the Secretary of Agriculture had sent from Washington to learn how the youths' corn work was aiding the cause of Nebraska agriculture, spoke before the 700 assembled children, he emphasized that "two scenes" had "impressed" him "more than any other" during the previous year. The first had been the Illinois boys' display in St. Louis, which, he noted, was "most suggestive of progress in agriculture." The second was the very meeting at which he was speaking. He did not know of any comparable display of "rural interest in agricultural education" and believed that youths like themselves must become leaders in interesting "the rising generation in agricultural education if we are to have any permanent improvement in our agriculture."¹³¹¹

That the USDA sent Hamilton, who had been hired in 1903 to organize adult-oriented Farmers' Institute work on a national basis, to Lincoln in December of 1905 is telling. Though the corn clubs that had appeared by 1905 were "somewhat crude in their organization," Hamilton's speech in Lincoln and the *Yearbook of Agriculture's* mention of the Illinois boys' displays were formal recognitions that youths around the corn belt were "accomplishing much good" on behalf of American agriculture and were, therefore, "worthy of encouragement." The Department especially valued the ways in which corn club work encouraged farm children to engage in problem solving, work collectively, and utilize modern agricultural publications and institutions. Indeed, one representative of the Department wrote, by "beginning with an awakened interest in one thing—better seed corn," the boys were influencing entire communities in "wholesome" ways.¹³¹²

That youths' work with corn and other crops might have larger implications for a modernizing nation was not lost on agricultural or educational reformers. In 1902, Frederick Sargent, who had been at the University of Wisconsin and taught botany at Harvard, published *Corn Plants: Their Uses and Ways of Life*. Appealing to the interests of superintendents like Graham and Kern and reformers like Rankin, Shamel, and Otwell, Sargent channeled Bailey's nature-study work and directed his text at "young people," primarily "for use in schools." Although his book made pretensions to explain the hows and whys of maize cultivation, its larger purpose appears to have been to rationalize the

¹³¹¹ See "Address of Prof. John Hamilton" in *Ibid.*, 423-424.

¹³¹² Crosby, "Boys' Agricultural Clubs," 495-496.

tasks associated with negotiating a modern economy. He used the language of market capitalism to frame corn plants, for example, as a kind of “self-building food-factory...governed by advanced business methods” in which “a wise and enterprising manager” followed a “policy” of building “branch factories” and thereby “insur[ed]” the plant’s “future safety.” Likewise, he explained that national progress hinged on food cultivation. Whereas “savages” survived only in small numbers by hunting, fishing, and gathering, he noted, the work of plant and animal domestication—especially the former—were central steps toward building “Large and strong nations.” His readers, therefore, were supposed to feel a tremendous responsibility to “bestow[] upon” such plants “man’s intelligent care” and ought to envision themselves as among the “farmers of the future” who would be “sure to attain an increase in the yield of corn plants many times greater than the best results thus far achieved.”¹³¹³

In many ways, these sentiments harkened to what Alan Trachtenberg has identified as “the incorporation of America:” the processes in which the nation’s rapidly changing “industrial capitalist system” expanded during the three decades following the Civil War and, through a range of pedagogical artifacts, transformed Americans’ “cultural perceptions.”¹³¹⁴ They also, however, reflect the turn-of-the-century’s growing interest in childhood and adolescence as a particularly impressionable period of life. Agnes Moody, for instance, had promoted kindergartens among Chicago’s African American children after she returned from flipping corn cakes in Paris as a means to create uplift in her community.¹³¹⁵ More famously, Liberty Hyde Bailey’s nature-study clubs also formed a part of this movement, as did Ernest Thompson Seton’s Woodcraft Indians, Daniel Carter Beard’s Sons of Daniel Boone, and the Boy Scouts organization that the two men created.¹³¹⁶ Thus while the USDA’s dawning interest in youths reflected a growing popular awareness of adolescence as an important time in a person’s life, Hamilton’s presence in Lincoln in December of 1905 bespoke the American government’s keen awareness of the modernization that it hoped to see among future farmers and its expectation that a new generation would lead the way.

¹³¹³ Sargent, *Corn Plants*, iii, 30-31, 68, 55, 70.

¹³¹⁴ Trachtenberg, *The Incorporation of America*, x, 3; Deloria, *Playing Indian*, 99.

¹³¹⁵ *Kindergarten Review*, Vol. 12, Jan 1902, 308.

¹³¹⁶ Deloria, *Playing Indian*, chapter 4.

USDA GROWTH AND FEDERAL EFFORTS AT CROP DIVERSIFICATION

While Hamilton's speech in Lincoln was a sign of the USDA's growing interest in children as the nation's future agriculturalists, his hire two years before had comprised part of the Department's expansion into the economics of agricultural production and reflected its attempts to establish more direct lines of communication with state experiment stations and Farmers' Institutes. In July of 1901, the USDA created the Bureau of Plant Industry (BPI), with Beverly T. Galloway as Chief. Though the BPI consolidated a number of older Divisions and took over Congress' task of circulating seed samples among farmers, its primary purpose was to stress increased production and efficiency. Within the next year, USDA agronomist W.J. Spillman—who was, at that time, operating out of the BPI but, in 1905, would become Chief of the new Office of Farm Management (OFM)—began to conduct “surveys and studies” regarding questions of “farm management.” He was especially interested in studying and disseminating the methods that successful farmers were using, and his interests reflected land grant universities and experiment stations explorations of “economic questions relating to agriculture.”¹³¹⁷ When he began as Chief of the OFM in 1905, therefore, Spillman began to use locally organized “college-trained men” to bring the discoveries of northern states' agricultural colleges and experiment stations directly to farmers.¹³¹⁸

The USDA was growing in other areas, as well, during the first part of the twentieth century. In 1904, James Wilson, the Secretary of Agriculture then overseeing the Department's expansions, directed Seaman A. Knapp to begin conducting anti-boll weevil interventions in Texas, Louisiana, and Arkansas.¹³¹⁹ The pest had started to eat its way north and eastward across the southern United States in 1892 by way of Texas. After female weevils deposited their eggs in the cotton buds that would otherwise become fluffy bolls, larvae ate their way out. In so doing, the pests destroyed as much of

¹³¹⁷ Baker et al., *Century of Service*, 41-45. For more on Spillman, see Laurie Carlson, *William J. Spillman and the Birth of Agricultural Economics* (Columbia: University of Missouri Press, 2005).

¹³¹⁸ His efforts, however, were not always appreciated by leaders in individual states: At Illinois, according to Deborah Fitzgerald, Davenport “chafed under what he considered the USDA's authoritative and ignorant direction of local problems in the states.” See Fitzgerald, *The Business of Breeding*, 89. See also Baker et al., *Century of Service*, 45.

¹³¹⁹ Baker et al., *Century of Service*, 40-44.

fifty percent of the cotton crop in a given area.¹³²⁰ This was a problem for southern states because discoveries regarding new uses for cotton seeds and technological developments in textile production had, since the end of the Civil War, enabled “King Cotton” to regain his southern throne. Given that the crop could be so lucrative, many farmers were disinclined to grow anything other than cotton. For this reason, sharecroppers and planters often cultivated the crop all the way up to their doorsteps, leaving little or no space for food. But because cotton-only fields lacked the natural defenses of more diverse ecological systems, they became terrific incubators for young boll weevils. The pest’s march across the Rio Grande at the turn of the century, therefore, portended horrific losses for everyone involved.¹³²¹

For the USDA, the apparent need to stop the boll weevil represented an opportunity to flex its freshly strengthened muscles, and for Secretary Wilson, Seaman Knapp was a natural choice to lead the charge. The two men had known each other for decades, when Knapp had been President of the Iowa Agricultural College and Wilson the director of its experiment station. Since 1885, however, Knapp had worked in southern states. In 1902 and 1903, Knapp’s work for the USDA—especially his efforts in getting farmers to cultivate crops that would ripen ahead of the boll weevil’s attacks and thereby increase both output and profits—caught the cotton industry’s attention. This feat was especially impressive because conveying solutions offered by the USDA’s Bureau of Entomology to southern farmers—namely the trinity of “[d]iversification,

¹³²⁰ Kent Osband, "The Boll Weevil Versus “King Cotton”,” *The Journal of Economic History* 45, no. 3 (1985): 627; Arvarh E. Strickland, "The Strange Affair of the Boll Weevil: The Pest as Liberator," *Agricultural History* 68, no. 2 (1994): 166; Douglas Helms, "Revision and Reversion: Changing Cultural Control Practices for the Cotton Boll Weevil," *Agricultural History* 54, no. 1 (1980).

¹³²¹ On southern cotton production after the civil war, see Charles S. Aiken, *The Cotton Plantation South since the Civil War* (Baltimore: Johns Hopkins University Press, 1998). On cotton production in Texas, especially, see Neil Foley, *The White Scourge: Mexicans, Blacks, and Poor Whites in Texas Cotton Culture* (Berkeley: University of California Press, 1999). On the southern cottonseed industry, see Lynette Boney Wrenn, *Cinderella of the New South: A History of the Cottonseed Industry, 1855-1955* (Knoxville: University of Tennessee Press, 1995). On the dietary and health implications of one-crop cotton production following the civil war, works on pellagra (and its discovery and treatment) are especially helpful. See Elizabeth Williams Etheridge, "The Strange Hunger: A Social History of Pellagra in the South" (PhD Dissertation, University of Georgia, 1966); Roe, *A Plague of Corn: The Social History of Pellagra*; Elizabeth W. Etheridge, *The Butterfly Caste: A Social History of Pellagra in the South* (Westport, CT: Greenwood Publishing Co., 1972); Alan M. Kraut, *Goldberger's War: The Life and Work of a Public Health Crusader* (New York: Hill and Wang, 2003). For early USDA observance of cotton production to the exclusion of foodstuffs, see S.M. Tracy, *Corn Culture in the South*, vol. Farmer’s Bulletin No. 81 (Washington: Government Printing Office, 1898).

better seed, and better practices”—was difficult in the face of southern farmers’ beliefs that no individual could reproduce the successes of Government-run “model farms.” Knapp convinced them otherwise after making arrangements to have a Texas farmer named Walter Porter follow the Department’s directions for cultivating seventy acres of his own cotton with his own equipment. At the end of the year, Porter calculated that Knapp’s new directions netted him \$700 more than his own methods would have done. Porter’s successes inspired his Texas neighbors to welcome the USDA’s influence in fighting the boll weevil and launched Knapp’s career in the Office of the Farmers’ Cooperative Demonstration Work within the BPI; this formed the origin of the Department’s county agent system and the forerunner of the office from which his son, Bradford Knapp, would contact Secretary Houston in 1913.¹³²²

With a year of demonstration work behind Knapp, the USDA began funding his work “with and through farmers” in 1904, in which he “utiliz[ed] demonstration fields to illustrate [better cotton seed] selection and better production” in hopes of combating the boll weevil infestation.¹³²³ USDA funds, however, were limited, and Knapp could not use them to combat the boll weevil where it had not yet spread. Thus in order to effectively prevent the pest’s expansion, his model of cooperative demonstration work had to be financed elsewhere. In 1906, a philanthropic “General Education Board,” which John D. Rockefeller had established with Standard Oil money, heard about Knapp’s educational efforts and gave him the funds to conduct preventative, anti-boll weevil educational work in non-infested areas.¹³²⁴

About this time, one J.F. Merry, “who was then Industrial Commissioner for the Illinois Central Railroad” but hailed from Iowa and over whose line Perry Holden had so recently preached the virtues of germination testing, summoned the corn evangelist to “Mississippi and Louisiana and talk corn to the people along their lines.”¹³²⁵ Like other

¹³²² Reck, *The 4-H Story*, 50-51; Baker et al., *Century of Service*, 40-44; Fitzgerald, *The Business of Breeding*, 179.

¹³²³ Baker et al., *Century of Service*, 43-44.

¹³²⁴ Reck, *The 4-H Story*, 52; Baker et al., *Century of Service*, 44. This relationship was severed in 1915. See Jane M. Porter, “Extension Work in the United States to 1930,” 19 (Agricultural History Branch of the Economic Research Service, Feb. 22, 1973); PC; Series XI, Box 9, Extension to 1930-draft; NAL.

¹³²⁵ Perry G. Holden to Dr. W.H. Smith, April 27, 1932, in Perry G. Holden, *Photo Album [and Family History]*, 113; PGHP, box 2; IAST. This would have been after the spring of 1905. By comparison, Holden went to Tennessee in November 1906. For the text of his speech there, see Perry G. Holden, *Corn*

railroad leaders looking to boost their freight business by promoting agricultural improvements in the areas they traversed, Merry had circulated academic discoveries among farmers adjacent to his railroad as early as 1903.¹³²⁶ His decision to flag Mississippi as fertile territory for corn, however, was something new. In any event, Holden traveled south—perhaps after the 1906 publication of his *The ABC of Corn Culture* and his appointment as professor of extension at Iowa State—and while in Mississippi, the corn apostle began to vent about the Mississippians' poor corn yields, which averaged merely nine bushels per acre.¹³²⁷ If he lived there, Holden admonished his listeners, he would encourage the County Superintendent of Schools “to organize a corn club in every school district in this county.” Then, he noted, “these boys and girls would show you Old Duffers how to grow corn.” Later, Holden recalled, Merry wrote him afterwards to say that one “William Hall Smith, superintendent of schools in Holmes county,” Mississippi, had inquired whether Holden might give Smith “information regarding the organization of boys and girls clubs.” Shortly thereafter, the superintendent contacted Holden directly.¹³²⁸

Presumably, the two struck up a correspondence. At the end of February, 1907, Smith called a meeting among children, teachers, and representatives of the Mississippi State College and Knapp's Farmers' Cooperative Demonstration Work. Like other superintendents, he, too sought to retain youths' interest in schools in the face of other distractions and decided that farm-related schoolwork might be the ideal hook to keep them enrolled. Moreover, he was aware that Mississippians in Holmes County, like others around the south, were suffering from debt incurred by buying western-grown cornmeal and meat, along with molasses, for credit at local supply stores, even when southern farmers were more than capable of growing their own corn. To this end, he proposed organizing a boys' corn contest and girls' domestic activities. At the meeting, Professor Perkins of the Mississippi State College agreed to send the interested boys sample corn seeds for their contests, which would take place on half-acre plots of land.

in Tennessee: An Address before the Middle Tennessee Farmers' Institute, November 1906 (Nashville: Tennessee Department of Agriculture, 1907).

¹³²⁶ Scott, "American Railroads and Agricultural Extension, 1900-1914," 79.

¹³²⁷ Holden, *The ABC of Corn Culture*.

¹³²⁸ Perry G. Holden to Dr. W.H. Smith, April 27, 1932, in Perry G. Holden, *Photo Album [and Family History]*, 113; PGHP, box 2; IAST.

For Smith, see Reck, *The 4-H Story*, 48.

Also in attendance was one A.F. Meharg, whom Seaman Knapp had appointed as an agent in the Farmers' Cooperative Demonstration Work and whose anti-boll weevil efforts the General Education Board was funding. Like Will Otwell in Macoupin County, Illinois, Meharg recognized that youths often evinced greater interest than adults in novel projects. And in the words of one historian, Meharg "was eager to encourage the far-visioned Smith."¹³²⁹

Over the ensuing months, Smith and the teachers he enlisted oversaw the 120 youngsters who entered the corn contest. He also ensured that the USDA and the agricultural college sent them the requisite bulletins. By October, it became evident that some youths had grown what would have amounted to yields of 120 bushels per acre. At the end of October, two thirds of his original contestants displayed their corn at a local fair, where local merchants awarded them "ribbons and money."¹³³⁰

During these months, both Holden and Meharg sent Knapp positive messages about Smith's corn clubs. The Iowa professor, who was familiar with what youths were accomplishing in his state as well as in Illinois and Ohio, told Knapp that Smith's work "was one of the biggest moves in America, or for that matter in the world. When you begin with the boys and girls and the schools you are beginning at the right end of things."¹³³¹ Meharg, for his part, also "reported developments to Knapp." Thus through the man who would later be known as "Corn Club" Smith, the USDA's Seaman Knapp became "receptive to the idea of working with boys" as a means of transforming southern farming practices. Soon after the October displays, Knapp made Smith "a collaborator of the USDA at a salary of one dollar per year." This enabled Smith to circulate publications for free, and, importantly, made him "the first man to be federally named to do club work with rural boys and girls."¹³³²

The next year proved transformative for this budding branch of the USDA. For Smith, his first priority had become, through youth clubs, aiding "the State Agricultural College and the Extension Department at Washington in reaching the masses of people with their Extension work." That summer, some 2,000 Mississippi youths took part in

¹³²⁹ Ibid., 48-50, 52.

¹³³⁰ Ibid., 52-53.

¹³³¹ Perry G. Holden, *Photo Album [and Family History]*, 113; PGHP, box 2; IAST.

¹³³² Reck, *The 4-H Story*, 52-53. For "Corn Club" nickname, see Perry G. Holden, *Photo Album [and Family History]*, 113; PGHP, box 2; IAST.

the state's Boy's Corn Club Demonstrations, and Knapp himself—who was in the midst of circulating information about corn seed selection to adult farmers—traveled “to take active part in a combined teachers'-farmers' institute” that Smith had organized.¹³³³

The pro-corn, anti-boll weevil youth work soon spread to Texas and Louisiana, and by the end of the year, it became clear that an official club leader in Washington, D.C. would have to supplant the efforts that southern school superintendents, agricultural colleges, experiment stations, the Bureau of Plant Industry, and the General Education Board were cobbling together.¹³³⁴ In March of 1909, therefore, Knapp appointed Oscar B. Martin, who had been the state superintendent in South Carolina, to be a “special agent in the Bureau of Plant Industry...with the specific duty of developing club work.” He also “told Martin to go ahead and arrange for the appointment of state club leaders in several states, those leaders to work under the joint direction of the state college and the Bureau of Plant Industry.”¹³³⁵

LINKING SOUTHERN AND NORTHERN CORN CLUB WORK: MISS JESSIE FIELD

After appointing southern leaders for youth agricultural club work, one of Martin's first acts as a special agent in the BPI was to coordinate a trip for fifteen of these men to Page County, Iowa that fall, where they met with Jessie Field, the superintendent of schools, and observed her methods for interesting youths in scientific agriculture.¹³³⁶ Field had long been an advocate for agricultural education, and by 1909, was receiving national recognition for her work. The daughter of homesteaders and the fifth of eight children, Field had grown up reading *Wallace's Farmer* and attending Farmers' Institute meetings.¹³³⁷ Acting on her longstanding interests in agriculture and the natural world, she used Liberty Hyde Bailey's nature study pamphlets when she began teaching in 1901. These pamphlets, she later recalled, eventually prompted “some work with corn growing

¹³³³ Ibid., 54-55. On Knapp's seed selection publication, see S.A. Knapp, *Seed Selection for Southern Farms* (Washington, DC: USDA Bureau of Plant Industry, 1908), 7.

¹³³⁴ Reck, *The 4-H Story*, 53, 59-60.

¹³³⁵ Ibid., 60-63.

¹³³⁶ W.K. Tate, "Country Schools for Country Children," *The World's Work* XXIV (1912). Item in Jessie Field Shambaugh Papers, 1947-1990: RS 16/3/60 (JFSP), Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST.

¹³³⁷ See Janice Nahra Friedel, "Jessie Field Shambaugh: The Mother of 4-H," *Palimpsest Magazine* 62, no. 4 (1981): 105. Item in JFSP; Box 1, Folder *Palimpsest Magazine*, Shambaugh Article, 1981; IAST.

for boys,” which she began by inviting a group of students to judge which ears of corn arrayed in a group were the finest, to explain how to husk the plant, and how to best grow it.¹³³⁸ Bernard L. Hagglund, one of those students, later wrote about “testing and growing...corn up to 8 inches or so high in a tin can and observing and reporting on its growth characteristics as its leaves unfolded and it grew in height.”¹³³⁹

This work took further root after Field became county superintendent. In 1906, like many others in her position, Field decided that she wanted to teach practical agricultural skills to the students in her 130 schools.¹³⁴⁰ And when she petitioned Perry Holden, who passed through town as a speaker at a Clarinda Farmers’ Institute that year, he agreed to help her do so.¹³⁴¹ Through Holden, Field got both the Farmers’ Institutes and the agricultural college involved with her schools’ curriculums. And over the next few years, her boys’ corn clubs became a driving force for agricultural achievement in her county. They also came to serve as a model for clubs around the nation, like those that the southern educators were hoping to foster during their visit in 1909.¹³⁴²

In 1908, around one hundred boys joined the Page County Boys’ Agricultural Club that she created on their behalf. She convinced local seed corn breeders to donate corn seeds so that club members between ages ten and twenty could grow those seeds on their own half-acre plots. That November, students displayed their finest ears of corn before A.V. Storm, an Ames professor who was especially interested in extending the cause of agriculture in the public schools. Shortly thereafter, they exhibited their corn at a local Farmers’ Institute meeting and competed for prizes.¹³⁴³ The boy who won the ten

¹³³⁸ See R.K. Bliss, “Miss Jessie Field – Mother of 4-H” (from a radio talk delivered by R.K. Bliss, Director Iowa State College Extension Service, August 18, 1948); JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST. See also Homer Croy, “First Lady of the Cornfields,” *Los Angeles Times*, March 30, 1947, F34.

¹³³⁹ B[ernard]. L. Hagglund, “Experiences of a Page County Iowa Farm Boy during the Early Nineteen Hundreds as a Member of a Farm Club and Later in a 3H Club, Predecessor Organizations to the 4H club, Miss Jessie Field and Her Part in Early Day Boys’ and Girls’ 4H Club Promotion. Observations 40 Years Later,” November 6, 1948 (2); JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST.

¹³⁴⁰ Friedel, “Jessie Field Shambaugh: The Mother of 4-H,” 105; Reck, *The 4-H Story*, 38.

¹³⁴¹ Reck, *The 4-H Story*, 38-39.

¹³⁴² Friedel, “Jessie Field Shambaugh: The Mother of 4-H,” 107. See also Jessie Field, *The Corn Lady* (Chicago: A. Flanagan Co., 1911).

¹³⁴³ *Page County History*, compiled and written by the Iowa Writers Program, “The Best Rural Schools in America,” 80, and R.K. Bliss, “Miss Jessie Field – Mother of 4-H” (from a radio talk delivered by R.K. Bliss, Director Iowa State College Extension Service, August 18, 1948); JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST. See also A.V. Storm, “Public School Agriculture,” in *Ninth Annual Iowa Year Book of Agriculture, 1908* (Ames: Emory H. English, 1909).

dollar Sweepstakes prize at the Institute later reported that he had meticulously cultivated his corn during the summer, and from his field, selected his finest ten ears for judging and display. Another member profited in a different way: he wrote of having used his seeds to raise “48 bushels of corn,” of which he sold fifteen, cleared \$27.75 for his troubles, and spent the proceeds on “a sow and pigs and a gun.” Later, he added, “I have learned to tell good seed corn and to tell certain types of corn. I think it paid and I intend to grow pure bred seed corn in the future. I certainly think every boy that can get ground to plant on should join the boys’ corn growing contest in Page County and show people we can grow corn.”¹³⁴⁴ Though he was clearly proud of his efforts and his financial gains, the youth appears to have recognized that there was something larger at stake: the likelihood that he and his peers would continue to contribute to local, and perhaps national, agricultural progress in the years to come.

Field’s efforts with the students in her district and her cooperation with Iowa’s agricultural leaders continued for many years. During the summer of 1909, professors from Ames spoke at a farmers’ picnic west of Clarinda with charts, taught corn judging skills to the club members, and held “[s]omething in the way of a preliminary boys’ corn judging contest.” These charts were the first such tool that young Bernard Hagglund had ever seen, and they made quite an impression on him, as did the classes. “We were instructed,” he later wrote, “as to what constituted a good ear of corn as judged by standards of that period and we were instructed in giving oral reasons for placing one ear of corn over another.”¹³⁴⁵ That fall, the Iowa professors helped select “three boys and an alternate” to create a Page County corn judging team for the forthcoming “State Corn-judging Contest.” Hagglund—whose own father had taken “a very active part in the small and large corn shows of the period and...[would be] a heavy winner at the [1909] Omaha [national corn] show”—was among the youths selected to represent Page County,

¹³⁴⁴ R.K. Bliss, “Miss Jessie Field – Mother of 4-H” (2-3); JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST.

¹³⁴⁵ B[ernard]. L. Hagglund, “Experiences of a Page County Iowa Farm Boy...”; JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST. For an example of what such course content sounded like, at least at the Ames Short Course during the fall of 1909, see H. A. Wallace, “A Boys’ Farm Camp,” *Wallace’s Farmer*, September 2, 1910, 4-5. In JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST.

and was well aware of “the honor and responsibility.”¹³⁴⁶ After entering and winning prizes at the Iowa State Fair in August, Field’s students also competed in a Clarinda “Corn Show and Industrial Exposition...at which prizes were awarded to boys and girls” for the best yellow and white dent corn, the best single ear, and the best twenty ears.¹³⁴⁷

[Image 6.14]

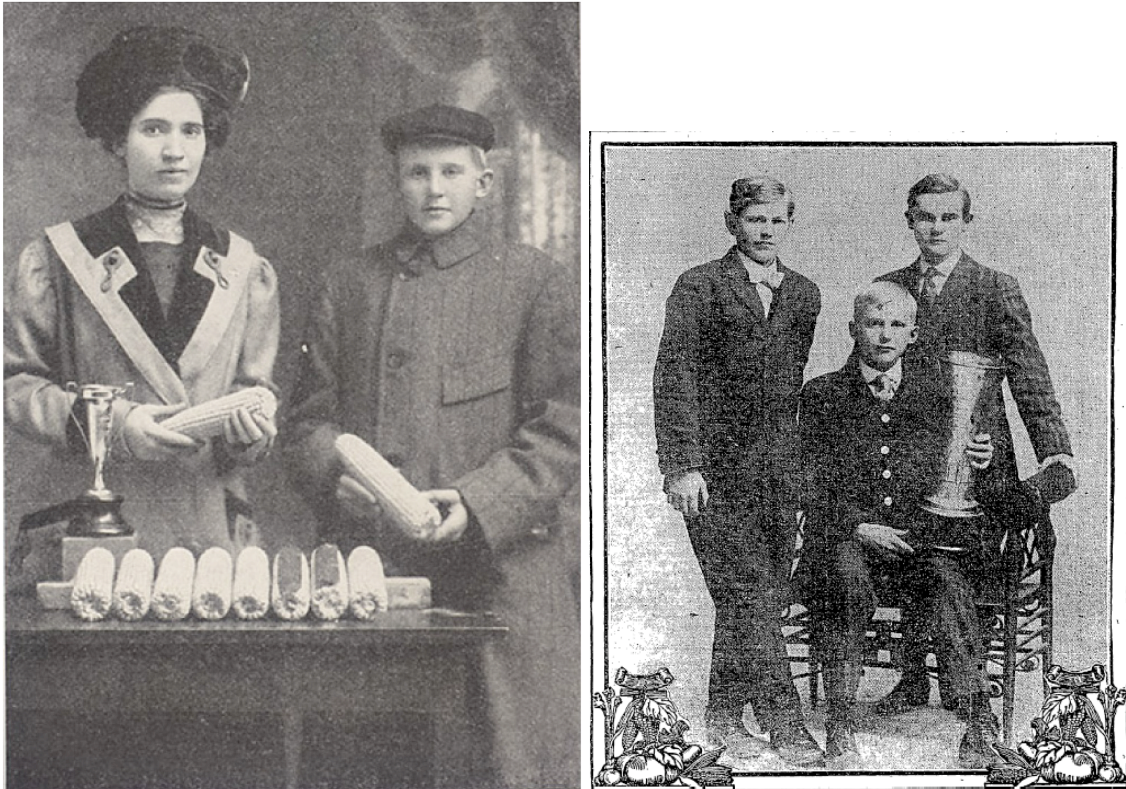


Image 6.14 / Jessie Field with student, c. 1908-1911. **Image 6.15** / Bernard Hagglund, seated, and two other winners in 1910 Iowa corn judging contest.

Shortly after the southern educators’ visit and her students’ success at the Iowa State Fair, Jessie Field’s brother encouraged her to send the Page County youths’ exhibits in corn and other agricultural and home departments to the 1909 Omaha Corn Show. By then, Missouri, Nebraska, Minnesota, and other states were crafting large exhibits of youths’ agricultural and domestic products, which made Field’s students’ prize-winning

¹³⁴⁶ B[ernard]. L. Hagglund, “Experiences of a Page County Iowa Farm Boy...” 2-4; JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST. For more on Hagglund, see “Making Expert Farmers of Iowa’s Small Boys,” *The New York Times*, June 19, 1910.

¹³⁴⁷ Reck, *The 4-H Story*, 40.

county exhibit all the more remarkable.¹³⁴⁸ Perry Holden, in turn, invited Page County's top ten winners back to Ames to take one of his corn "short courses" that winter, where Field's students—including Bernard Hagglund—won a trophy and \$250 as the best boys' corn judging team in the state of Iowa.¹³⁴⁹ **[Image 6.15]**

It was in making such strides that Field's students generated the buzz that had drawn Oscar B. Martin's fifteen appointed southern leaders to Page county and would continue to attract attention from national newspapers. The visiting educators who observed Jessie Field's students in the fall of 1909 unanimously praised Page County's accomplishments. One of them, W.K. Tate, lauded the link Field had made between education and modern agricultural methods. "[A]fter a boy has learned how to judge seed corn," Tate wrote, "he has something definite to say when he writes his compositions in English; and he has a new interest in arithmetic when the problems are made to deal with corn." Normal courses in instruction, he argued, would not permit the youth to "develop later into a good corn grower" or enable him to "know how to estimate the capacity of a corn crib." But through activities like a "morning nature lesson," he explained, in which "A pupil gave the reasons for picking seed corn at that time, and two boys with a string exemplified the best way to hang up the corn after it had been selected," or an arithmetic lesson in which pupils had "to measure a corn crib at home" and calculate "the capacity of the crib, the amount of corn that it would hold, and the value of the corn," youths would be well on their way to preparing to farm in the nation's rapidly evolving business climate.¹³⁵⁰ **[Images 6.16-6.17]**

¹³⁴⁸ Friedel, "Jessie Field Shambaugh: The Mother of 4-H," 107. On other states' attempts to make strong showings in Omaha during the 1908 corn show, by comparison, see E.C. Bishop's letters in Corn Exposition, Omaha, 1908 [Letterbook], Vol. 1, (esp. pgs 76-77); Nebraska Department of Education (RG 011), Subgroup 1, subseries 6, box 23; Nebraska State Historical Society, Lincoln, Nebraska (NESHHS); "Boys' Corn Growing Contest," *Missouri State Board of Agriculture Monthly Bulletin* 6, no. 4 (1908); McBrien, *Twentieth Biennial Report of the State Superintendent of Public Instruction to the Governor of the State of Nebraska for the Biennium Beginning January 2, 1907 and Ending December 31, 1908*, 226.

¹³⁴⁹ Friedel, "Jessie Field Shambaugh: The Mother of 4-H," 107-108.

¹³⁵⁰ Tate, "Country Schools for Country Children." For another brief discussion of their October, 1909 visit, see Reck, *The 4-H Story*, 40. For more of her lessons, see Field, *The Corn Lady*.

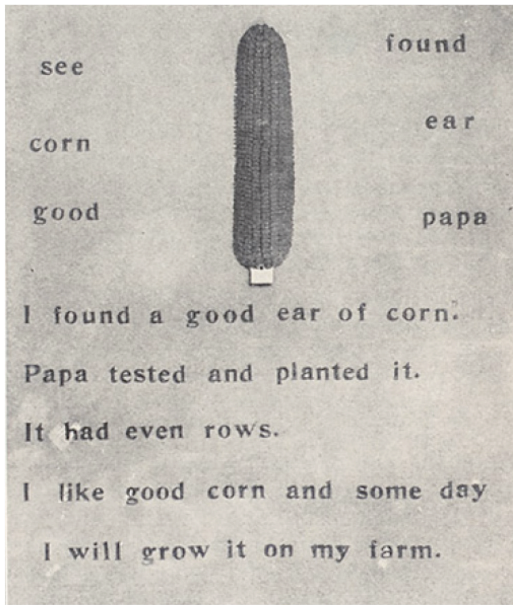


Image 6.16 / Jessie Field's corn reading chart. **Image 6.17** / Field's "boys' farm club" studying corn.

Another southern appointee, Alabama Superintendent Harry C. Gunnells, organized boys' corn clubs in his state shortly upon his return from Iowa. One German farmer had made a particular impression on him during his visit to Page County, and it was Gunnells' hope that South Carolina's boys might duplicate the Iowan's experience. This man's fourteen year-old son, Gunnells recalled, had asked to experiment on an acre of the family's land. By the end of that first season, he had grown 136 bushels where the father had grown only forty. During the ensuing years, the boy—whom the father had since put in charge of corn growing—helped increase the farm's productivity by 100% and had gone on to study agriculture at the University of Wisconsin. Gunnells hoped that the corn clubs he planned to implement in Alabama would "encourage" boys in his state "to get an education along agricultural lines," "lead to increased production on the farm," and foster "better schools, better roads, better churches, improvement of the social life in the rural districts and a more contented and happy people."¹³⁵¹

As these southern leaders' testimonies suggest, Page County's education-centered corn clubs influenced the movement's evolution. At the end of December, one Dr. A.E. Winshop, of Boston, wrote in *Farm and Fireside* that Page County's efforts were a

¹³⁵¹ Alabama Department of Education, *Information in Regard to Corn Clubs for Alabama Boys* (Montgomery, AL: Brown Ptg. Co., 1910). By October of 1911, the Alabama boys' corn clubs were so well organized that they put together a corn palace in which they displayed boys' and mens' accomplishments. See L.N. Duncan and J.B. Hobdy, "A Brief Sketch of the Corn Palace," n.d., n.p., (RBC So Pam 104) Sioux City Public Museum, Sioux City, IA (SCPM).

tremendous credit to all involved: “The boys do more work on the farm than formerly, work cheerfully and intelligently, they have taught and inspired their fathers to plant better seed, to rotate and vary crops, to keep better stock, to work on better advantage.”¹³⁵² In June of 1910, the *New York Times* explained that Page County’s agricultural clubs, through “the creation of rivalry among farmers’ sons,” were training each member for business-minded farming careers. The club model, it wrote, puts the youths “upon their mettle, drives all thought of the city from their minds, and starts them along the trail of up-to-date agriculture, which leads to success early in life.”¹³⁵³

YOUTHS’ ACRE YIELD CONTESTS AND AGRICULTURAL MODERNIZATION

If one reason that boys’ corn clubs resonated so loudly among educators and reformers was the perception that competitive work would lead to youths’ contentment on business-minded farms later in life, another was the belief that the clubs’ activities would modernize and transform agricultural production. In praising Iowa’s clubs, the *Times* explained that “The selection of seed corn,” along with crop rotation and fertilizer use, was vital to the work of “achieving large yields.”¹³⁵⁴ And according to a representative of the Missouri State Board of Agriculture, boys’ work like that practiced by Field’s students—essentially the work of “grow[ing] better men”—was central to the process through which corn yields would “be doubled without an increase in acreage.” For this reason, he explained, “Corn growing contests and other similar competitions among farm boys... are splendid successes,” especially “[a]s feeders of agricultural colleges.” The “boys who are taking part in the local and state corn shows and similar rivalries,” he insisted, would receive educations that would enable them to double their fathers’ yields and would eventually “grow more corn to the acre than ever before has

¹³⁵² Dr. A.E. Winshop, “The Best Rural Schools in America,” *Farm and Fireside*, December 25, 1909, quoted in *Page County History*, compiled and written by the Iowa Writers Program, “The Best Rural Schools in America,” 83; JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST.

¹³⁵³ *Page County History*, compiled and written by the Iowa Writers Program, “The Best Rural Schools in America,” 84; JFSP, Box 1, Folder: Three Ring Notebook Contents, 1907-1989; IAST. For *New York Times* article, see “Making Expert Farmers of Iowa’s Small Boys.” For more on Fields’ work, including the corn judging teams’ victories between 1919-12, the origins of Farm and Homemaking Camps for boys and girls, her own success in corn judging, her 1911 book, *The Corn Lady*, her 1922 text, *A Real Country Teacher*, and her 1971 death, see Friedel, “Jessie Field Shambaugh: The Mother of 4-H.”

¹³⁵⁴ “Making Expert Farmers of Iowa’s Small Boys.”

been produced on the same land.”¹³⁵⁵ The President of the Indiana Corn Growers’ Association concurred. Because “More corn means more and better live stock, more live stock more soil fertility, and more fertility better returns for labor and a higher type of intelligent citizenship,” he noted, “[t]he matter of local corn shows and the establishment of Boys’ clubs should appeal to every member of this Association as being the most potent means of extending the corn work, and should receive all possible aid and encouragement.”¹³⁵⁶

The widely shared goal of agricultural modernization prompted the creation of a new kind of corn contest. Between 1905 and 1910, agricultural leaders around the Corn Belt supplanted the ten-ear judging work with acre yield contests. Since 1899, agricultural leaders like Eugene Funk had realized that the appearance of an ear of corn did not necessarily correlate with the yield that its seeds would produce, and their skepticism only intensified during the ensuing decade.¹³⁵⁷ When Funk spoke at the 1904 Louisiana Purchase Exposition in St. Louis, for example, he argued against growing “fancy exhibition corn” and reminded his audience that “all fine looking, high scoring corn is not from high yielding producers.” Indeed, he pointed, farmers ought to pursue “yield per acre” instead of pretty ears so as to “justify the labor and expense of raising an acre of corn.”¹³⁵⁸ That same year, young Henry A. Wallace—then a teenager privy to his father and grandfather’s circle of agricultural elites, but someone who would, in time,

¹³⁵⁵ Dewitt C. Wing, "More Corn to the Acre," *Missouri State Board of Agriculture Monthly Bulletin* VII, no. 7 (1909): 39, 43. Though his sentiments resonate with others’ views of Field’s work in Page County, Iowa and elsewhere, he was probably thinking about Missouri’s own corn clubs, which in 1909, were organized by the University and enrolled at least 2,000 youths in contests requiring the cultivation of ¼ and ½ acre growing plots. See Wing, "More Corn to the Acre," 28-29. This work was still very collaborative, however. In 1910, the Missouri Board of Agriculture circulated rules and instructions for that year’s boys’ corn growing contests, which a professor from the agricultural college and a director from the State Board of Agriculture had designed. This year, the contest was for selecting seed corn for show from plats anywhere from 1 to 5 acres in size. See "Boys Corn Growing Contests for 1910," *Missouri State Board of Agriculture Monthly Bulletin* VII, no. 1 (1910).

¹³⁵⁶ J.B. Burris, "President’s Address," in *Tenth Annual Report of the Indiana Corn Growers’ Association Annual Meeting at Purdue University, Lafayette, Indiana, January 12, 1910*. (LaFayette: Burt-Haywood Co., 1910), 16.

¹³⁵⁷ For the development of hybrid corn research between the 1890s and the 1930s, see ongoing research on hybrid corn/corn breeding, see Fitzgerald, *The Business of Breeding*.

¹³⁵⁸ E.D. Funk, *Commercial Corn Breeding: An Address Delivered before Congress of Experiment Stations and Colleges of Agriculture, Louisiana Purchase Exposition October 8, 1904* (Bloomington, IL: 1904), 7. Two years later, Funk proposed that Illinois breeders adopt new corn scorecards that accounted for yield. While Davenport and Hopkins at the University of Illinois agreed with him, other breeders “pointed out the difficulties of including yield as a factor in corn shows” given inconsistencies between acres and because single ears could not represent an entire row or acre. Fitzgerald, *The Business of Breeding*, 142-143.

become a leading corn breeder and the Secretary of Agriculture—took Perry Holden’s belief in corn aesthetics as determinants of yielding ability to task by planting samples of the famed Reid’s Yellow Dent corn and proving that there was no correlation between the two.¹³⁵⁹ Two years later, one Jerome B. Armstrong also warned fellow farmers to avoid “fancy points.” “What does the ordinary farmer care for straight rows or sameness of ears,” Armstrong asked, “so long as he gets a large yield, or well matured and sound corn, such as will meet the demands of commerce, give the greatest number of pounds of shelled corn per acre, fat his hogs and cattle make a big return on his investment, pay off the mortgage and allow him a fine carriage[?]”¹³⁶⁰ Gradually, the idea of considering evidence of yield rather than assumptions based on looks caught on. By the end of 1909, James J. Hill, the Great Northern Railroad’s driving force, spoke adamantly about the relationship among “inelastic” areas of land, the problem of “exhausted” public lands, and the question of national food supplies. His speech at the National Corn Exposition, therefore, emphasized that increasing crop yields ought to be a national priority.¹³⁶¹ And in August of 1910, the Missouri State Board of Agriculture and the College of Agriculture reminded teachers that “the yield lesson is an important one.”¹³⁶²

Thus as Corn Belt states’ school superintendents, boards of agriculture, departments of public instruction, and experiment station representatives began to work with youths, some began to encourage corn club members to conduct their corn activities on individual acres of corn. In Indiana, for example, La Porte County boys agreed “to grow an acre of corn” in 1905 under their superintendent’s supervision, with the expectation that their work would increase the county’s corn yields. However, because the idea of selecting the finest ten ears from a field of corn was a difficult concept to circumvent or supplant, the county’s corn contest in 1906 rewarded youths’ acre yields in

¹³⁵⁹ John C. Culver and John Hyde, *American Dreamer: The Life and Times of Henry A. Wallace* (New York: W.W. Norton & Co., 2000), 27-29. See also Nygard, "Seeds of Agribusiness", 206-207.

¹³⁶⁰ Jerome B. Armstrong, *Improved Methods of Corn Growing and Intense Cultivation* (Shenandoah, IA: 1906), 42, 49.

¹³⁶¹ For address, see James J. Hill, *Address Delivered by Mr. James J. Hill at the National Corn Exposition, Omaha, Nebraska, December 9, 1909* (1910). For more on Hill, see Michael P. Malone, *James J. Hill: Empire Builder of the Northwest* (Norman: University of Oklahoma Press, 1997). For the National Corn Exposition’s co-meeting with the ABA that December, see "Association Matters," *American Breeders Magazine* 1, no. 2 (1910): 71.

¹³⁶² "Boys Corn Growing Contests for 1910," *Missouri State Board of Agriculture Monthly Bulletin* VIII, no. 8 (1910): 16.

conjunction with their skills in selecting model ears.¹³⁶³ In Nebraska, meanwhile, ninety-seven youths entered a new acre contest for 1906.¹³⁶⁴ This ran again in subsequent years, thanks to collaborative efforts by the Department of Public Instruction, the Department of Farmers' Institutes, and the University of Nebraska.¹³⁶⁵ Something similar took place in Missouri. Starting in 1908, if not earlier, the State Board of Agriculture worked with the Missouri Corn Growers' Association, the Superintendent of Schools, and the Dean of the Agricultural College to reward contestants who grew "the greatest weight of corn on a measured fourth acre" or acre with prizes of \$20 and \$25.¹³⁶⁶

These acre contests, however—like the corn club movement in northern and western states, generally—remained uncentralized and sporadic. But ongoing USDA intervention in the south soon ameliorated these problems. Thanks to southern educators' interests in corn clubs as a means to improve education and to the USDA's own

¹³⁶³ G.I. Christie, ed., *Eighth Annual Report of the Indiana Corn Growers' Association, Annual Meeting at Purdue University Lafayette, Ind. January 15, 1908* (LaFayette: Burt-Wilson-Haywood Co., 1908), 55-57.

¹³⁶⁴ Only fourteen, however, fulfilled all of the State Board of Agriculture's requirements by submitting narratives of how they grew their crops. The winner was Harry W. Olderog, who grew 118 bushels and 30 pounds of corn, for which he won \$50. See W.R. Mellor, *Annual Report, Nebraska State Board of Agriculture for the Year 1906-1907* (Lincoln: State Journal Company, 1907), 18, 62, 195-197.

¹³⁶⁵ See Val Keyser, *Planting Corn for the Contest*, vol. Series XII, No. 12, Nebraska Boys' and Girls' Associations University Bulletin (Lincoln: The University Press, 1907). Item held in *4-H Clubs F1 Scrapbook #1 1905-1930*, University Archives / Special Collections – University of Nebraska-Lincoln, Lincoln, NE. By 1910, Nebraska's Acre Contests required students to "select the seed, prepare the ground, do the planting, and cultivate the corn according to his own idea." The "county superintendent" in the fall would have a "committee of three disinterested persons...measure the acre, see the corn husked and weighed and make affidavit to correctness of same." Meanwhile the student would write and submit a report and send it along with his ten best ears "at the county, state and national shows." E.C. Bishop, *Nebraska Boys and Girls Club (Series I, Bulletin No. 15)* (Lincoln: State of Nebraska Department of Public Instruction, 1910). Apparently only eleven of the 166 boys who entered the corn acre contest that year reported their results. Their acre yields ranged from 95 bushels and 15 pounds of corn on the high end to 29 bushels and 30 pounds at the low end. Only two of the eleven reported yields of less than fifty bushels (and they were 29 and 30). This probably suggests how rare it was to grow more than fifty bushels per acre. The low rate of participation also may show how difficult it was to get farmers to try new methods. E.G. Montgomery, ed., *Second Annual Report of the Nebraska Corn Improvers' Association* (Lincoln: 1911), 42-43. In 1911, State Superintendent of Public Instruction E.C. Bishop was still leading the charge for corn club work as an important part of boys' development. By then, however, the work encompassed the Acre Contest, the Ear to Row contest, a husking contest, and a judging contest. See E.C. Bishop, *Nebraska Boys and Girls Club: General Outline of Plans for the Home Experiment Department, 1910-1911 (Series I, Bulletin No. 12)* (Lincoln: State of Nebraska Department of Public Instruction, March, 1910). Item held in *4-H clubs F1 Scrapbook #1 1905-1930*, University Archives / Special Collections – University of Nebraska-Lincoln, Lincoln, NE (UNL).

¹³⁶⁶ Interestingly, the board of agriculture's premiums far outpaced those for the best 5 or 10 ears of corn grown on 1 acre or ¼ acre. "[Missouri] Boys' Corn Growing Contest [for 1908]," *Missouri State Board of Agriculture Monthly Bulletin* 6, no. 4 (1908): 8-9. In 1909, 2,000 boys and young men enrolled by July 1. The University supplied seed for boys to grow ¼ acre plots and for young men to cultivate ½ acre plots. Wing, "More Corn to the Acre," 28-29.

aspirations for stymieing the boll weevil and stimulating crop diversification, boys' corn club work continued to expand in the south, and it was there that acre yield contests really took hold of the farming population. In 1909, Seaman Knapp offered the Mississippi youth who "made the best record on his corn crop" a free trip to Washington, D.C., as an incentive to spur participation in the corn clubs that his Office of the Farmers' Cooperative Demonstration Work oversaw. Shortly thereafter, Oscar Martin made a similar offer for boys in South Carolina, as did agricultural and banking leaders in Virginia and Arkansas. That winter, the four winners—Ralph Bellwood, Bascom Usher, Dewitt Lundy, and Elmer Halter—met President Taft, received diplomas from Secretary Wilson, and became "charter members of the USDA's All-Star Corn Club, a new national honorary organization of champion growers."¹³⁶⁷ In 1910, Knapp again offered to send southern corn club champions in yield to the Capitol. The following winter, eleven boys from North Carolina, South Carolina, Virginia, Louisiana, Georgia, Mississippi, Oklahoma, and Alabama traveled to Washington.¹³⁶⁸ Among them was Jerry Moore, a sixteen-year old South Carolina youth whom the national press had feted for having grown an unprecedented 228 bushels of corn on one acre.¹³⁶⁹ **[Image 6.18]**



Image 6.18 / Jerry Moore of Winona, South Carolina, and his 228.7 bushels of corn, 1910.

¹³⁶⁷ Reck, *The 4-H Story*, 69.

¹³⁶⁸ *Ibid.*, 74-75.

¹³⁶⁹ For Moore's story, including image of him with his corn, see *Ibid.*, 71-75. See also E.J. Watson, *South Carolina's Invite to the National Corn Show and New Corn Belt Facts* ([Columbus?]: The South Carolina Department of Agriculture, 1911), 8-12. According to the *New York Times*, however, the winner was a young man from Marlborough County, South Carolina, with the last name Usher. This was probably incorrect. See "Boy Champion Corn Grower," *The New York Times*, November 20, 1910.

Publicity arising from these boys' success stories prompted more than 46,000 southern youths to enroll in corn club work by 1911.¹³⁷⁰ Some of these were in Alabama. In 1910, following the Alabama Superintendent's visit to Jessie Field's schools and the 1909 corn champions' trips to Washington, Alabama formed boys corn clubs and promised to reward "the boy growing the greatest number of bushels per acre and also to the boy exhibiting...the best ten ears of corn."¹³⁷¹

News of Knapp's Washington, D.C.-bound boys had similar effects in northern states. In 1910, nineteen-year old Chester Matheny (who had attended corn shows and short courses for boys, had competed in corn judging contests, and been enrolled in corn clubs for a number of years) grew ninety one bushels and fifteen pounds of corn in an acre yield contest, and won some part of a \$100 prize sponsored by the *St. Louis Weekly Star Farmer* for his efforts.¹³⁷² The next year, Jessie Field wrote of her students' excitement at the prospect of winning a trip to Washington "for the largest number of bushels of corn on his acre, with the least expense."¹³⁷³ Perry Holden, too, is said to have "offered prizes for the best acre of corn raised by a boy not over twelve years old." According to one account—validated inasmuch as the egocentric Holden saved the article—"Hundreds and thousands of boys became interested at once in selecting seed, and several hundred carried the test through to a conclusion. Some of these boys, on a single acre, raised a hundred bushels, where, formerly, their fathers had raised thirty, forty, forty-five and fifty bushels."¹³⁷⁴

Eventually, the USDA began to express interest in overseeing northern boys' corn club work, including the nascent acre yield contests. At the same time, northern congressmen began to wonder why southern states, but not their own, were receiving federal funding for demonstration work involving corn clubs. In 1910, therefore, Knapp selected Oscar H. Benson, the Wright County, Iowa, school superintendent, to assist Martin in the USDA's Washington, D.C. office of the Farmers' Cooperative Demonstration work. After Benson had implemented seed corn testing and corn judging

¹³⁷⁰ Reck, *The 4-H Story*, 76. For more on the DC-bound boys, see Benjamin Marshall Davis, "Agricultural Education: Boys' Agricultural Clubs," *The Elementary School Teacher* 11, no. 7 (1911): 373.

¹³⁷¹ Education, *Information in Regard to Corn Clubs for Alabama Boys*.

¹³⁷² "The Success of a Young Corn Grower in the Boys' Acre Yield Contest," *Missouri State Board of Agriculture Monthly Bulletin* IX, no. 3 (1911): 26-27.

¹³⁷³ Field, *The Corn Lady*, 65-66.

¹³⁷⁴ Perry G. Holden, *Photo Album [and Family History]*, 154; PGHP, box 2; IAST.

in his schools, alongside other projects in agricultural and domestic science, his efforts had dramatically elevated the community's interest in education. Knapp became aware of Benson's work through Holden, who had enthusiastically recommended him, and his own son, Bradford, who had worked in Benson's county. Given Benson's experiences with Iowa children and Martin's agenda of making youth work a collaborative product of the USDA and the agricultural colleges, Benson's hire was an obvious choice. Thus in 1911, Benson entered that branch of the USDA's employ.¹³⁷⁵

Though Benson immersed himself in organizing youth club work—especially the girls tomato canning clubs and the boy's pig and cotton clubs that arose from the corn club model—the Department transferred him from the USDA's Farmers' Cooperative Demonstration Work and into the Office of Farm Management (OFM) in May of 1912. There, he began to work with W.O. Spillman, the OFM agronomist who, we recall, had long been interested in researching efficient modes of production and bringing them to farmers by way of agricultural colleges and experiment stations. Now, Benson would be bringing his experiences with corn club youths to the OFM, where he would develop youth club work for boys and girls in Northern and Western states.¹³⁷⁶ In the meantime, extension work in those states had taken on new life, and the fervor for teaching farmers new methods of agricultural production demonstrated a clear need for federal funding. In 1912, therefore, Congress appropriated \$161,000 for the OFM to conduct demonstration work in northern and western states.¹³⁷⁷

FROM PRETTY EARS AND ACRE YIELDS TO PROFITABLE FARMING

As the USDA began to express greater interest in youths' agricultural clubs, another major shift was taking place: beginning around 1906 and accelerating after 1911, agricultural leaders in the Department, land grant colleges, extension stations, schools, and private organizations began to reify the idea of profitable farming. While the question of farming with regard for "profit" may seem to be an obvious goal to pursue, it marked an entirely new way of thinking about farm productivity during the first decade of the twentieth century. In 1902, for example, A.D. Shamel used the annual meeting of

¹³⁷⁵ Reck, *The 4-H Story*, 43-45, 47, 96.

¹³⁷⁶ *Ibid.*, 96-106.

¹³⁷⁷ *Ibid.*, 106-108.

the Indiana Corn Growers' Association to discuss the relationship between maintaining soil fertility and "produc[ing] the largest yield per acre most economically."¹³⁷⁸ The discourse of profitable farming, however, did not fully arise until slightly later, around 1906. That year, Perry Holden explained that "the really great problem for the farmer today is not how to grow more acres of corn, but how to produce greater returns from each acre and from each day's labor put upon that crop." His solution, however, was to select the best seeds so as to ensure maximum corn germination and thereby attain the greatest possible yield, and in his mind, the corn scorecard provided the ideal means to this end.¹³⁷⁹ A different picture of the idea of profitable farming arose in Georgia. That same year, the "State Agricultural Society, the State Department of Agriculture, the Experiment Station, the State School Commissioner and Boards of Education, and the Director of the Farmers' Institutes" worked together "in hearty sympathy and co-operation" to sponsor an inaugural "boys' corn and cotton contest." Observing that Georgia farmers were heavy consumers of costly soil supplements—phosphoric acid, potash, and nitrogen—they wanted young corn contestants to specifically calculate their "Cost of making crops" so as "to determine the profit or loss on the yield." They asked contest entrants, therefore, to calculate their personal labor expenses and those of their horses, and to tally other expenses (which would have included fertilizer), their corn's market value, its value as a feed, and the boys' actual "amount of loss or gain."¹³⁸⁰

Although no other states imposed similar requirements in their youth contests until 1911, Georgia's 1906 contest presaged an ideological shift that would soon envelop the USDA and state-based agricultural institutions.¹³⁸¹ Around 1908, the Department began to emphasize profitable farming as a specific goal that farmers might attain by

¹³⁷⁸ "Third Annual Meeting of the Indiana Corn Growers' Association," 590.

¹³⁷⁹ Holden, *The ABC of Corn Culture*, 75-76.

¹³⁸⁰ "Georgia Boys' Corn and Cotton Contest 1906," *Bulletin of the University of Georgia*, February 1906, 23-24.

¹³⁸¹ The closest any other came was in 1910, when Nebraska youths had to answer a number of questions about the corn they planted. Contestants in the Ear-to-Row contest, for instance, had to track the number of times that they disced and harrowed their fields, while contestants in the Acre Contest, which required the student to work an acre of land for an entire year, had to compose a written cultivation narrative about the process of seed selection, preparation, planting, and cultivation. See Bishop, *Nebraska Boys and Girls Club (Series II, Bulletin No. 15)*. Reck states that in 1910, the corn champions who visited Washington were judged not on "yield alone" but on "thirty per cent on yield, thirty per cent on his profit showing, twenty percent on exhibit, and twenty per cent on his written records." I doubt the veracity of this statement, however, and think that it applies to later trips. See Reck, *The 4-H Story*, 75-76.

increasing yields and lowering costs of production. This idea of profitability, therefore, was far more specific than older understandings of profit as merely “beneficial” or of farming as something to consider simply in relation to the soil’s “bank account.”¹³⁸²

Farming with regard to profit required accounting for all costs of production, including labor, land rental or purchase, and external inputs like phosphoric acid, lime, or manure.

Profitable farming mattered because the USDA—for a range of social and political reasons—was interested in lowering consumers’ costs.¹³⁸³ Consumer prices for luxuries like fruits, vegetables, and flowers, Department representatives noted, were often 100% more than that which the producer had received. Though corn was not marked up quite so much, it was a staple for meat producers and industrialists alike. The more expensive that corn was for purchasers of cash corn, the more expensive that processed or manufactured products would be.¹³⁸⁴

The problem with corn was that farmers regularly confronted both high costs of production and low yields. An “average” acre yield of thirty bushels, the Department noted, would return \$10.50 when priced at thirty-five cents per bushel. However, if costs of production reached ten dollars per acre, the farmer would only receive fifty cents in profit. But if “drought, poor seed or poor culture” lowered yields lowered to, say, twenty bushels of corn per acre, the costs of production could only be met by selling “at 50 cents a bushel,” which meant higher consumer prices or—if the farmer could not sell his corn at that price—significant losses.¹³⁸⁵

However, the Department noted, there was hope. Some farmers, as the OFM was wont to report, attained substantially higher yields and therefore accrued greater profits. If *all* farmers increased their yields *and* lowered their costs of production, the Department reasoned, their improvements in making production more efficient would lower

¹³⁸² "Third Annual Meeting of the Indiana Corn Growers' Association," 590.

¹³⁸³ The federal government, meanwhile, was beginning to take interest in modernizing farmers’ standards of living, as evinced by President Roosevelt’s Country Life Commission. On the Commission, see Liberty Hyde Bailey, *The Country Life Movement in the United States* (New York: The McMillan Company, 1915); Scott J. Peters and Paul A. Morgan, "The Country Life Commission: Reconsidering a Milestone in American Agricultural History," *Agricultural History* 78, no. 3 (2004); Olaf F. Larson and Thomas B. Jones, "The Unpublished Data from Roosevelt's Commission on Country Life," *Agricultural History* 50, no. 4 (1976); William L. Bowers, "Country-Life Reform, 1900-1920: A Neglected Aspect of Progressive Era History," *Agricultural History* 45, no. 3 (1971).

¹³⁸⁴ A.F. Woods, "The Wastes of the Farm," in *Yearbook of the United States Department of Agriculture, 1908* (Washington: Government Printing Office, 1909), 213-214.

¹³⁸⁵ *Ibid.*

consumer prices while enabling them to derive a greater profit. “There is no good reason,” the USDA concluded in 1908, “why the necessities of life and even its luxuries can not be supplied at less than the present cost by improved methods of production and by cutting out all unnecessary wastes.”¹³⁸⁶

The next year—the same that he first offered trips to Washington, D.C. for the southern youths who grew the largest yields of corn on their demonstration acres—Seaman Knapp framed his office, the Farmers’ Cooperative Demonstration Work, as revolving around the goal of instilling ideals of profitable farming in the men and boys who were increasingly utilizing the USDA’s network of demonstration agents. Knapp’s “object lessons” to these farmers revolved around “making a larger and more profitable crop at a reduced cost of production.” And youths’ corn clubs, he explained, were important tools in attaining those goals.¹³⁸⁷ **[Image 6.19]**



Image 6.19 / “Members of a boys’ corn club at Tyler, Tex. A real School of Agriculture.”

¹³⁸⁶ Ibid.

¹³⁸⁷ Seaman A. Knapp, “The Farmers’ Cooperative Demonstration Work,” in *Yearbook of the United States Department of Agriculture* (Washington: Government Printing Office, 1910), 155, 158-160.

By 1911, agricultural leaders in the USDA and around the country had come to see profitable farming as the gateway to the nation's future. Early that year, G.I. Christie, the former Secretary of the Indiana Corn Growers' Association and a Professor of Extension at Purdue, lectured the Ohio Corn Improvers Association on the importance of considering the "Cost of Producing an Acre of Corn." Although Christie argued that yield was important, he thought it was unwise to reward yield alone. The "average yield of 36.5 bushels, valued at forty cents per bushel," he explained, "does not give a large profit." But profits, he reminded his audience, stood on more than yield alone. Echoing the USDA's 1908 concern with costs of production, he noted that "not more than two" of the 3,000 farmers he and other Purdue professors had encountered while lecturing on an Indiana corn train "gave us any definite information" about "just what it was costing them to raise an acre of corn."¹³⁸⁸

Christie's sentiment reverberated across other publications during the ensuing months. That spring, G.N. Collins in the USDA's Bureau of Plant Industry used the *American Breeders Magazine*—the voice of individuals interested in studies of heredity and eugenics, and for some time, a publication of special note to corn breeders—to describe the problems that he, too, saw with corn shows and acre yield contests. As Eugene Funk had long suspected, Collins explained that nothing about aesthetically based corn scorecards correlated with the goal of attaining high yields. Moreover, he added, the acre yield contests had nothing to do with actual profits generated. "Profit and not yield per acre," he insisted, "is the object of the farmer. The premium in such cases might with equal propriety be awarded for the best fertilizer or the most productive land."¹³⁸⁹

By October, agricultural leaders' awareness of the importance of profitability was trickling down into the realm of youths' corn clubs. That month, the Nebraska State Department of Public Instruction and the University of Nebraska's Department of Farmers' Institutes sent instructions for entering the "Nebraska Corn Husking Contest" to children around the state. Whereas these institutions had, earlier that year, stated that "we could do much toward increasing the yield per acre in the state of Nebraska by

¹³⁸⁸ G.I. Christie, "The Relationship between Type and Yield of Corn," in *Eleventh Annual Report of the Indiana Corn Growers' Association Annual Meeting at Purdue University, Lafayette, Indiana January 11, 1911* (LaFayette: Burt-Haywood Co., 1911), 47-48.

¹³⁸⁹ G.N. Collins, "Yield Tests as a Basis of Awarding Prizes at Corn Shows," *American Breeders Magazine* 2, no. 2 (1911): 104.

carefully selecting and testing our seed-corn,” the same voices now explained the profitable benefits and unprofitable pitfalls of various methods of seed corn selection and storage and emphasized that corn’s importance derived from “one thing—profit... when all is said and done the object of all corn production is profit.”¹³⁹⁰

By December of 1911, agricultural leaders’ interest in instilling profitability as an ideal among the nation’s future farmers had become even more widespread. That month, Oscar B. Martin and Bradford Knapp (who, following his father’s death earlier that year, had replaced Seaman Knapp in the office of the Farmers’ Cooperative Demonstration Work) introduced a contingent of corn club members from Oklahoma, Illinois, and states across the south to the House of Representatives’ Committee on Agriculture.¹³⁹¹ The boys represented 60,000 club members who, they observed, used the USDA’s office of the Farmers’ Cooperative Demonstration Work and “local agents” to follow the “best method” for cultivating their acre plots of corn. While the hearing was an attempt by Knapp and Martin to increase federal funding for corn club work and other agricultural extension activities, Martin made it especially clear that the boys were exemplars of modern farming precisely because they were aware of the costs of production and had sought to minimize them. Seven of the boys, Martin explained to the congressmen, “grew above 200 bushels each on their acres.” Notably, while “All of them made their crops at low cost,” some did so “under 10 cents” per bushel. Their work, therefore, helped “break down local prejudices...against what the farmer calls “book farming.”” And through each youngster’s own “successful corn crop,” Martin explained, his office was positioned more strongly to “get[] hold of the farmer himself.”¹³⁹²

THE POLITICS OF PROFITS

¹³⁹⁰ E.C. Bishop, *Nebraska Boys and Girls Club: Selecting, Scoring and Storing Seed Corn and Potatoes (Series Ii, Bulletin No. 20)* (Lincoln: State of Nebraska Department of Public Instruction and Department of Farmers' Institutes, October, 1910), 4; E.C. Bishop, *Agricultural Education: How to Test Seed Corn for Nebraska Boys and Girls Clubs and Classes in Agriculture (Series Ii, Bulletin No. 14)* (Lincoln: State of Nebraska Department of Public Instruction, March, 1910), 3. Items held in 4-H clubs F1 Scrapbook #1 1905-1930, UNL.

¹³⁹¹ On Seaman Knapp’s 1911 passing, see Baker et al., *Century of Service*, 44.

¹³⁹² *Agriculture Appropriation Bill. Hearings before the Committee on Agriculture, House of Representatives, Boys Corn Growing Clubs, December 14, 1911*, (Washington: Government Printing Office, 1911), 121-127.

Corn club boys' successes in modeling profitable farming methods to their communities came to carry large political implications. Over the next few years, advocates of increased federal appropriations for agricultural extension besieged Washington with club members who were actively measuring their profits and yields.¹³⁹³ Thus in February of 1912, the House of Representatives learned more about corn clubs and their members' accomplishments. On Saturday the 3rd, a group of Iowa boys who had won acre-growing contests staged in their congressional districts spoke before the House Committee on Agriculture. Led by none other than E.C. Bishop, formerly of Nebraska and now a Professor at Iowa State and the director of the youths' work, the boys' trip to Washington was their reward for having so deftly tracked their yields and costs. As their southern counterparts had done in December, the Iowa boys and their leader regaled the Congressmen with their awareness of the importance of profits to farming. Indeed, the boys had traveled to Washington precisely because they had exceeded the other 2,200 Iowa club members in having grown "the greatest number of bushels" in their congressional districts "at a profit."¹³⁹⁴

Meanwhile, back in the Farmers' Cooperative Demonstration Work, now under Bradford Knapp's supervision, USDA leaders began to create standardized forms with which youths might more accurately track their cultivation efforts and costs. With these, corn club boys would track "the preparation and planting of his crop...the cultivation of the crop; and [would send] a final report at the end of the growing season...to the[ir] state office and to Washington."¹³⁹⁵ And towards the end of 1912, Benson, now working with

¹³⁹³ On the Page bill & its connection to early iterations of the Smith-Lever Act, see L.E. Blauch, *American Education: Its Men, Ideas and Institutions* (1935; reprint, Arno Press, 1969), 72-84.

¹³⁹⁴ "Iowa Boys' and Girls' Corn Clubs, Saturday, February 3, 1912," in *Hearings before the Committee on Agriculture: Miscellaneous Bills and Other Matters* (Washington: Government Printing Office, 1912), 31-49. Note that Iowa girls who had undertaken competitive bread-making were also in attendance. For what it is worth, the boys' contests may have looked something like (or perhaps inspired) that which New York Congressman John W. Dwight sponsored for boys in Tompkins County in the spring of 1912. Dwight promised to send the nine youths with the greatest acre yield in their towns and the best histories of how they raised their crop to Washington for the Presidential inauguration in 1913. Like the other entrants, Van Breed Hart wrote a cultivation narrative, and his was published in the paper. By the end of the season, he had grown 211 bushels of corn. After calculating various inputs and the costs of his labor, he figured that he had gained 78.8% on his investment. When Congressman Dwight heard of results like Hart's, he wrote to Secretary Wilson that he was "simply delighted with the results of the contest" and that he "believe[d] it will be of lasting benefit to the farmers of this section." See John W. Dwight to James Wilson, December 27, 1912, and enclosure, "Nine Boys Win Fine Excursion in Corn Contest," *The Ithaca Daily Journal*, n.d.; GC, 44, Boys and Girls Clubs, 1913; RG 16; NACP.

¹³⁹⁵ Reck, *The 4-H Story*, 101.

Spillman at the OFM, notified the Northern and Western county agents with whom he hoped to collaborate about his suggestions for making corn club work even more forward-thinking: like his counterparts in the south, training the boys to consider questions of profit would be a central goal in the years to come. To this end, he suggested that agents ought to reward contestants for achieving both high yields per acre and for “showing on profit in investment.” Only secondarily, he explained, should they consider students’ “best exhibit of ten ears” and their “written history entitled, “How I made My Crop of Corn.””¹³⁹⁶ He reiterated this again at the end of December: “the regular club work...has to do with the acre yield at a reasonable cost of production.”¹³⁹⁷

With this mentality dominating extension work that the USDA was overseeing, it is not surprising that when a new crop of “National Champion Corn Growers” traveled to Washington in January of 1913—now representing youthful cooperators in both Northern and Southern states and shepherded by Benson in the OFM and Martin in the Farmers’ Cooperative Demonstration Work—they barraged politicians with news of their profitable accomplishments. After meeting Secretary Houston and filming “moving pictures” with President Taft, they spoke to policy makers on Capitol Hill. Again, they reiterated having emphasized the relationship among costs of production, yields, and profits. Hosea Cornwell of Illinois, the “Corn Club Champion for the North & West,” for example, noted that his “object at all times” en route to his 150 bushel acre yield “was to do the work fast and well. I used good tools and strong horses, and when I went into the

¹³⁹⁶ O.H. Benson, “Premium suggestions & sample sheets of instructions from OFM by O.H. Benson pertaining to the Boys’ Corn Club work of the Northern and Western States, conducted from the Office of Farm Management;” GC, Box 80, Demonstration Work; RG 16; NACP.

¹³⁹⁷ See Oscar H. Benson, *Special Contests for Corn Club Work (Bpi Circular #104)* (Washington: Government Printing Office, December 26, 1912), 4. Laden with suggestions for corn contests for every season, the document showcases Benson’s creativity and demonstrates the OFM’s growing interest in inculcating “greater interest in farm life” among the next generation of farmers. Boys’ contests, Benson proposed, might encompass “The best hand-picked bushel of seed corn,” “The best 10-ear sample,” “The best single ear,” “The best hill of corn, showing stalks, ears, roots, etc.,” “The best stalk of corn from which to select seed corn,” a “Seed Corn Stringing Contest,” a “Plowing Contest,” a “Corn-Judging Contest,” a “Corn breed and variety naming contest,” a “Corn-Recipe and Products-Naming Contest,” and a “Corn-Problems Contest.” Meanwhile, “Language and Composition Contests” could revolve around corn. Topics could include “How I Made My Crop of Corn,” “Corn-Club Work as an Education,” “The Value of Careful Seed Selection,” “History of Corn,” and the “Importance of Testing Seed Corn.” The idea, he noted, was to “reinforc[e] the Boys’ Corn Club work with a series of practical and highly useful play contests” so as “to interest boys in their methods and those of their fathers” and “to furnish authentic farm-labor reports to the United States Department of Agriculture.”

field I worked hard to get my work done quickly to save expense.”¹³⁹⁸ Likewise, Frank Brockman reported having grown 167 bushels of corn on his acre at a cost of 22.5 cents per bushel and having sold it at three dollars per bushel, “for seed, in New York.” His costs included thirty five dollars invested in “a thousand pounds of lime and 300 pounds of bone meal,” his own labor and that of his horse, as well as “rent for the land.” Leon Kelley, meanwhile, impressed the Committee by showing that his two half-acres of corn, one in fertilized land and the other unfertilized, gave him very different profits: twenty one cents per bushel on the former and twelve on the latter. Finally, B. T. Galloway, Chief of the bureau through which the OFM’s work with Northern and Western boys operated, reminded the Congressmen that although the OFM’s hand in club work only began in July, 1912, these boys’ yields were already showing what might be possible as far as “bringing up the average yield for the entire country.”¹³⁹⁹

The USDA’s promulgation of profit-centered corn cultivation—essentially transitioning youths from what had been far more recreational than to something that was scientifically-based, economically rational, and capital intensive—accelerated during 1913. When, that February, Benson and Galloway issued a new circular designed “for use in the Northern and Western States,” they noted having changed the Department’s qualifications for boys’ membership in their “All-Star Corn Club.” Whereas members previously were required to have been state or district champions or to have grown more than one hundred bushels per acre, now, any youth who grew his bushels of corn “at an average cost per bushel of not more than 20 cents” could join the club.¹⁴⁰⁰ Because “[t]he future of American agriculture” depended on rural youths, the circular explained, the boys’ awareness of “profit on the investment” would continue to be a subject of state interest.¹⁴⁰¹

¹³⁹⁸ O.H. Benson to R. M. Reese, Secretary to Secretary Wilson, January 14, 1913; GC, 44, Boys and Girls Clubs, 1913; RG 16; NACP.

¹³⁹⁹ “Boys’ Corn Clubs (Southern),” in Hearings before the Committee on Agriculture, House of Representatives, 62nd Congress, Second and Third Sessions, on Miscellaneous Bills and Other Matters,” (January 22, 1913).

¹⁴⁰⁰ United States Department of Agriculture, Bureau of Plant Industry, Office of Farm Management, “Organization and Instruction in Boys’ Corn Club Work,” February 21, 1913, Form R-4, 8; GC, 80, Demonstration Work; RG 16; NACP.

¹⁴⁰¹ United States Department of Agriculture, Bureau of Plant Industry, Office of Farm Management, “Organization and Instruction in Boys’ Corn Club Work,” February 21, 1913, Form R-4,; GC, 80, Demonstration Work; RG 16; NACP. For a blank form that Benson circulated in early 1913 to “All

In a way, this should have made corn club participation more democratic. Frank Brockman, for instance, the corn club champion who sold his 167-bushel per acre seed corn in New York at three dollars per bushel, was a youth of apparent privilege: hailing from Temperence, Virginia, his father owned their farm, and his family—of at least nine children—had the financial means to support a black servant girl.¹⁴⁰² Such apparent stability suggests how he would have been able to invest the princely sum of thirty-five dollars in lime, bone meal, and rent for one single acre. It may also explain how he crafted the connection that enabled him to sell his corn seed in New York. For youths who didn't have cash or New York connections, All-Star membership on the basis of costs per acre leveled the playing field. Even so, one imagines that the competition was fairly self-selecting inasmuch as it would have tended to draw the children of progressive and well-to-do farmers more readily than the offspring of struggling tenants or sharecroppers.

Later that year, Oscar Benson sent out a “blank form” to “All Members of the Boys’ Corn Clubs” where they could track actions and tally expenses so as to “make a complete report of [their] club acre of corn.” Members were to send these forms, which asked no fewer than sixteen questions about “Cost, Yield, and Profit for year,” to the State agent in charge of Club Work or the OFM directly. “We want a report from every club member, even if the yield is small,” Benson insisted. “Completing the club work of the entire season and making out this report in full means success.”¹⁴⁰³ **[Image 6.20]**

If the OFM was eager to ask boys to consider the question of profit, they were even more ready to display evidence of club members’ success in having tracked their yields, methods, and costs of production. In Benson’s annual report to the Secretary on club activities, he reinforced the fact that all of the club members who had grown over 100 bushels per acre in 1912 were helping the BPI conduct moisture tests in 1913, while other club members were testing seed corn and using those results to improve yields in

Members of the Boys’ Corn Clubs,” which they could use to track actions, expenses, etc., so as to “make a complete report of your club acre of corn, . . . even if the yield is small,” see O.H. Benson to All Members of Boys’ Corn Clubs, USDA, BPI, OFM Form R-2; GC, 80, Demonstration Work; RG 16; NACP.

¹⁴⁰² U.S. Census for Amherst County, Virginia, 1910, Series T624, Roll 1621, p. 195. Accessed via HeritageQuest Online, January 10, 2011.

¹⁴⁰³ O.H. Benson to All Members of Boys’ Corn Clubs, USDA, BPI, OFM Form R-2; GC, Box 80, Demonstration Work; RG 16; NACP.

their communities. In Kentucky, he added, new father-and-son corn contests were bringing even more cooperators into the USDA's fold.¹⁴⁰⁴

COST, YIELD, AND PROFIT FOR YEAR.

(1) Unless otherwise authorized by the State agent, in making up the cost of your acre of corn estimate the rent of your acre at \$5, your time at 10 cents an hour, and the time of each horse at 5 cents an hour. Count all commercial fertilizers at just what they cost you; count barnyard manures at \$2 for a two-horse load of about one ton and \$1 for a one-horse load of about one-half ton. To prepare the figures for the cost column multiply the number of hours that you work by 10, and the number of hours that each horse works by 5.

Fill out the following items carefully:

COST OF YOUR ACRE OF CORN.

	Number of hours.	Cost.
(2) Plowing, harrowing, spading, manuring, and other work of self or team		\$
(3) Hoeing acre of corn
(4) Planting acre of corn (self and team)
(5) Cultivating acre of corn (self and team)
(6) Work in gathering acre of corn
(7) Estimated rent of land		5 0 0
(8) Cost of your commercial fertilizer at market price
(9) Cost of your barnyard manure (see paragraph 1)
(10) Cost of seed corn to plant your acre (give actual cost or market price of good seed)
(11) Total cost of producing acre of corn

ESTIMATED VALUE OF CORN FROM ACRE.

(12) a Number of bushels of common corn made on your prize acre	Bushels.	
b Number of bushels of seed corn made on your prize acre		
c Total number of bushels on your prize acre		
(13) a What was the market value per bushel of your common corn at the time you put it in your crib?	\$	
b What was the market value of your seed corn at that time?		
c What was the value of all your corn, both common and seed? ¹	\$	
<small>¹ Multiply the number of bushels of common corn by the value per bushel; multiply the number of bushels of seed corn by the value per bushel, and add the two results.</small>		
(14) What was the profit on your acre of corn? ²		
<small>² Subtract the cost of producing the corn (see paragraph 11) from the value of the corn, as given in paragraph 13-c.</small>		
(15) What was the cost of your corn per bushel? ³		
<small>³ Divide the total cost (see paragraph 11) by the total number of bushels (see paragraph 12-c).</small>		
(16) What was the moisture test, per cent?		

..... (Age)

.....
(Club member sign here)

.....
(Give your teacher's name here)

.....
(School)

.....
(Year)

8-2034

Image 6.20 / "Cost, Yield, and Profit For Year."

¹⁴⁰⁴ O.H. Benson, "Boys' and Girls' Club Work. Annual Report for the Fiscal Year Beginning July 1, 1912 and Ending June 30, 1913 For the Northern, Central, and Western States;" GC, 77, Boys' & Girls' Clubs, 1912-1913; RG 16; NACP.

The Department was also encouraging members to continue their activities by heaping praise on their successes. In anticipation of the club champions' annual visit to Washington at the end of 1913, for example, Secretary Houston was to use a prepared speech to congratulate the champions for having bested the other 200,000 club members who undertook agricultural and home projects that year. While it is unclear whether Houston actually read the document to the children whom the Department viewed as the shock troops of modern farming, it shows in no uncertain terms that the USDA viewed club activities as central to the nation's industrial progress. "You have fought diligently and successfully the industrial warfare," Houston's speechwriter wrote, and "Your achievements not only represent high yields, but the business requisites so necessary to success in any line of activity." This work, he went on, was "a piece of the world's work," and by tracking efforts throughout an entire season, "you are able to show a very substantial net profit on your investment of money, labor and time." This, the writer continued, "constitutes an achievement of which our best business managers or farm or shop might be proud." Not unlike Perry Holden's admonitions, in 1905, that farmers who refused to select seed corn were "bad, very bad," the Department articulated that too many farmers continued to fall victim to "bad habits and unprofitable practices." The youths whom Department leaders anticipated greeting in December, 1913, however, were to be commended for showing their openness to "the [Department's] information and leadership which has helped you to make a success of your year's work" and to "consider [them]selves leaders and cooperators with the United States Department of Agriculture and the State institutions in helping to make your communities better."¹⁴⁰⁵

Such praise was in stark contrast to the Department's ongoing dismay at the work of Ohio's club members. While that state "took up the work," Benson had told the House Committee on Agriculture in 1913, it "only partially adopted the regular business basis of what we call corn club work, which is the whole job, from planting the seed to making the report, when the profit on the investment is shown. They simply limited it...to the

¹⁴⁰⁵ "Suggestions for address to Boys' and Girls' Club Champions, 9:00 a.m., December 13, 1913. Requested by Mr. Callendar, private secretary to Secretary Houston," 1-2; GC, Box 77, Boys' & Girls' Clubs, 1912-1913; RG 16; NACP.

yield.”¹⁴⁰⁶ Because Ohio’s Commissioner of Agriculture, which organized that state’s contest, was not “cooperating directly with” and following USDA instructions that youths account for “[t]he question of economy of production,” USDA leaders sniffed that Ohio’s visiting corn club champions—all 225 boys in the fall of 1912 and 1,000 in 1913—were “champions in yield only,” were not, therefore, “members of the National Corn Club,” and would not receive “certificates of the Department of Agriculture.”¹⁴⁰⁷

TOWARDS SMITH-LEVER, A NEW ERA IN EXTENSION, AND A MODERN STATE

Ohio’s refusal to require its youths to account for their profits explains much of the discrepancy between the USDA’s support for the National Corn Club members’ achievements and its protestations against Ohio’s “champions of yield only.” Until the May, 1914 passage of the Smith-Lever Act, however, which streamlined the organization and finances of the cooperative extension programs that the USDA and the nation’s land grant universities would offer to rural Americans and brought boys’ and girls’ demonstration clubs—which in 1918 would become known as “4-H”—under USDA oversight, the USDA’s reticence was merely a symptom of the proverbial elephant in the room: whether or not institutions like Ohio’s Board of Agriculture would fully cooperate with the Department.¹⁴⁰⁸ Indeed, before Smith-Lever’s passage, many state experiment stations feared that the USDA would “encroach” on their extension programs.¹⁴⁰⁹ The USDA, for its part, was unhappy that it had to partner with so many other institutions and was struggling to keep the corn club youths it had organized under its domain; though the OFM had a supervisory role for about 25,000 of the 60,000 enrolled club members, the remaining 35,000 were organized through state agricultural colleges and “State leaders.”

¹⁴⁰⁶ “Boys’ Corn Clubs (Southern),” in Hearings before the Committee on Agriculture, House of Representatives, 62nd Congress, Second and Third Sessions, on Miscellaneous Bills and Other Matters.”

¹⁴⁰⁷ O.H. Benson, “Boys’ and Girls’ Club Work. Annual Report for the Fiscal Year Beginning July 1, 1912 and Ending June 30, 1913 For the Northern, Central, and Western States;” GC, 77, Boys’ & Girls’ Clubs, 1912-1913; RG 16; NACP. See also Wm. A. Taylor, Chief, Bureau of Plant Industry, to David Wilson, Secretary, Dept. of Agriculture, Oct. 3, 1913; GC, 77, Boys’ & Girls’ Clubs, 1912-1913; RG 16; NACP.

¹⁴⁰⁸ The boys’ and girls’ club work that began with corn clubs and blossomed into tomato, potato, pig, poultry, and other related outlets received its official moniker, “4-H,” in 1918, when the USDA’s Gertrude Warren drafted a charter (and, nodding to the Department’s high regard for corn clubs, affixed a drawing of a boy comparing two ears of corn at the top of the document). For discussion of charter, see Reck, *The 4-H Story*, 210. For actual charter, see Boys’ and Girls’ Club Charter; GC, 648, Boys’ and Girls’ Clubs, 1919; RG 16; NACP.

¹⁴⁰⁹ Wessel and Wessel, *4-H: An American Idea*, 23.

They were, therefore, pleading for additional funding and pressuring for “uniformity throughout the States.”¹⁴¹⁰

As debates about the future of cooperation in agricultural extension played out, corn clubs’ popularity and their perceived efficacy in shaping the practices of the nation’s future farmers proved instrumental in passing Smith-Lever. In the summer of 1913, we recall, Bradford Knapp contacted Secretary Houston about the successful Mississippi boys who had once belonged to corn clubs and had since enrolled in college. That October, Oscar Benson reminded Houston that the OFM’s work with northern and western youths, especially “boys corn clubs on the acre basis,” continued to produce large yields, substantial profits, and plenty of young people who were willing to cooperate with the USDA.¹⁴¹¹ It is not surprising, then, that towards the end of that year, Secretary Houston himself reminded college leaders that USDA’s “youth clubs,” along with its “demonstration farms,” had proven to be “the most effective method for transferring knowledge from the laboratory to existing farmers.”¹⁴¹²

Smith-Lever’s sponsors were equally attuned to the successes that corn club boys had enjoyed and used them as evidence of the need for greater centralization in the nation’s agricultural extension programs. Indeed, while Senator Hoke Smith had promoted corn club work and approved appropriations for agricultural extension during his tenure as Georgia’s governor, Congressman Asbury F. Lever had seen corn club boys in his home state of South Carolina raise banner yields under Seaman Knapp’s oversight.¹⁴¹³ According to Lever, the corn club youths’ achievements had encouraged him to pass the act and it was his hope that “that a large share of” the funds arising from the new policy would “be devoted to an expansion of the work with young folks.”¹⁴¹⁴

Congress finally passed Smith-Lever in May, 1914. According to its stipulations, the state colleges of agriculture would carry out the USDA’s farm and home extension

¹⁴¹⁰ O.H. Benson, “Boys’ and Girls’ Club Work. Annual Report for the Fiscal Year Beginning July 1, 1912 and Ending June 30, 1913 For the Northern, Central, and Western States;” GC, 77, Boys’ & Girls’ Clubs, 1912-1913; RG 16; NACP. See also Bureau of Plant Industry, “Organization and Instruction in Boys’ Corn Club Work,” February 21, 1913; GC, 80, Demonstration Work; RG 16; NACP.

¹⁴¹¹ Field Studies and Demonstrations, Office of Farm Management, “Boys’ and Girls’ Club Work. Annual Report for the Fiscal Year Beginning July 1, 1912, and Ending June 30, 1913...,” 8-9, enclosed in O.H. Benson to David F. Houston, October 20, 1913; GC, 77, Boys’ & Girls’ Clubs, 1912-1913; RG 16; NACP

¹⁴¹² Wessel and Wessel, *4-H: An American Idea*, 23-24.

¹⁴¹³ Reck, *The 4-H Story*, 119.

¹⁴¹⁴ Cited in *Ibid.*, 123.

work while their agents would become employees both of their home institution and the Department. In the USDA, a new bureau, the States Relations Service, would mediate the projects undertaken by two regional divisions: one southern and the other northern and western.¹⁴¹⁵

The USDA used its expanded access to land grant universities' extension programs to further acculturate the nation's future farmers to the methods that the industrializing country would most demand. Given that "the most fundamental work in farm economics before the New Deal was," in Deborah Fitzgerald's judgment, "showing farmers how to keep track of their income and expenses, and how to study their own actions and assign values to them," it matters that that such tasks had become primary components of the USDA's understanding of corn club work by 1912 and that these processes continued to structure club members' activities after Smith-Lever's passage.¹⁴¹⁶ Indeed, USDA historians have noted, the "expansion of the boys' and girls' club work" that took place through Smith-Lever brought "children...into the program for maximum production and utilization of agricultural commodities."¹⁴¹⁷

Following Smith-Lever, Jane Porter writes, club work around the nation came to revolve around "record keeping and completion of projects," on one hand, and competition "for prizes, usually donated by businessmen," on the other.¹⁴¹⁸ In a 1914 pamphlet advertising the gold-plated pins that members of clubs like the "Boys' corn club" and the "All-Star Corn Club" might wear, for example, special note was paid to the

¹⁴¹⁵ In 1921, the two regional offices were combined into one Office of Extension Work in the USDA's States Relations Service, and two years later, the SRS was itself replaced by the Office of the Director of Extension Work and the Extension Service. On post Smith-Lever developments, see *Ibid.*, 105-106, 118, 124-105, 211; Baker et al., *Century of Service*, 81-82, 108. See also Jane M. Porter, "Extension Work in the United States to 1930," 19 (Agricultural History Branch of the Economic Research Service, Feb. 22, 1973), p 21, 25; PC; Series XI, Box 9, Extension to 1930-draft; NAL. For a summary of Smith-Lever's accomplishments a few years after its implementation, see "Memorandum Summary of Important Plans and Activities of the Department of Agriculture, 1913-1918: States Relations Services," June 27, 1918, p 7-12; PC; Series XI, Box 7, USDA 1900-1930; NAL. For an example of Federal instructions to newly organized agents regarding their mission of helping farmers turn profits, and the observation that "Dr. True [head of Extension] feared the States might resent such definite "instructions" coming from the Federal office and thought it best that these suggestions be the subject of field conference or talks at State meetings of agents," see W.A. Loyd, "Suggestions to County Agents on Taking Up the Work," USDA, 1915; William Allison Lloyd Papers, vol. 1, NAL.

¹⁴¹⁶ Deborah Fitzgerald, "Accounting for Change," in *The Countryside in the Age of the Modern State*, ed. Catherine McNicol Stock and Robert D. Johnson (Ithaca: Cornell University Press, 2001), 196.

¹⁴¹⁷ Baker et al., *Century of Service*, 82.

¹⁴¹⁸ Jane M. Porter, "Extension Work in the United States to 1930," 19 (Agricultural History Branch of the Economic Research Service, Feb. 22, 1973), 36, 43; PC; Series XI, Box 9, Extension to 1930-draft; NAL.

fact that “Bankers, commercial clubs, and other organizations” were purchasing and distributing these emblems to club members who produced large quantities of corn at low prices—fifty bushels for less than thirty cents per bushel—and submitted their “complete crop report” at the end of the year.¹⁴¹⁹ [Image 6.21]

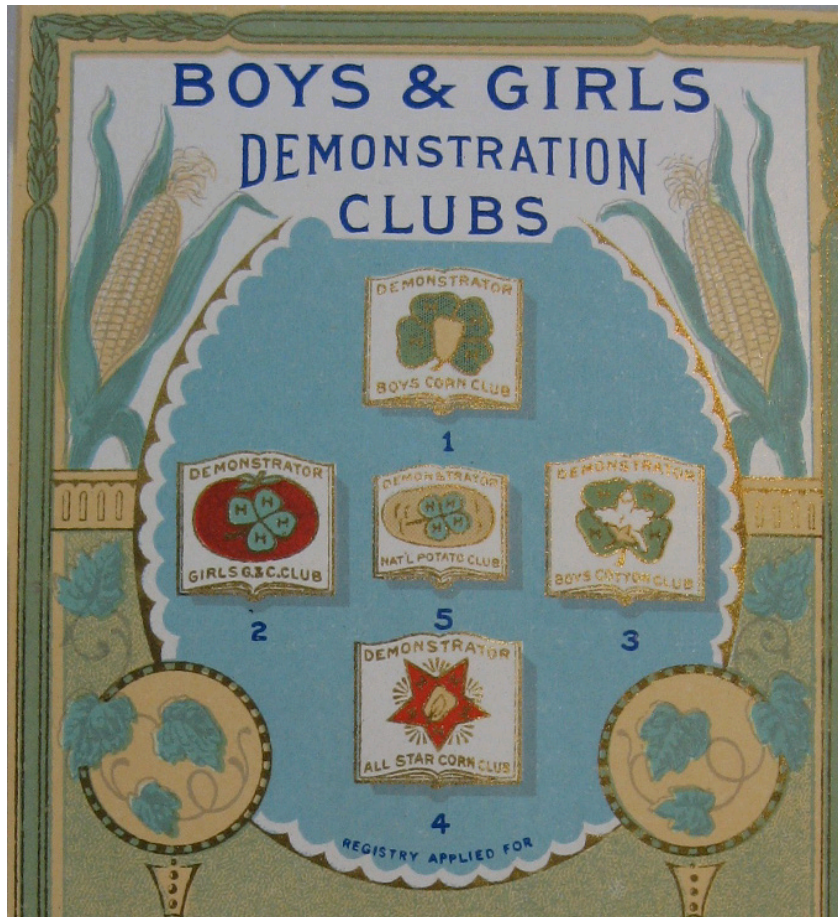


Image 6.21 / National Demonstration Club Emblems, 1914.

In Kentucky in 1915, likewise, a bank offered prizes to corn club members not for attaining record-breaking yields but to the youth would follow “the county agent’s instructions most implicitly and who reports his various operations most completely.”¹⁴²⁰ The next year, the USDA, the Alabama Polytechnic Institute, and the Cooperative Extension Service jointly created a “Program of a Community Organization Day for A Boys’ Corn Club.” Although increasing corn production while minimizing costs lay at

¹⁴¹⁹ Boys & Girls Demonstration Clubs National Demonstration Club Emblems; GC, 126, Boys’ and Girls’ Club Work, 1914; RG 16; NACP.

¹⁴²⁰ Notably, the \$5 rewards were to be placed in the bank, where they would generate interest until boy was twenty-one years old. This would enable boys to learn agriculture and business. See “First National Bank Offers Prizes For Boys;” GC, 273, Boys’ and Girls’ Clubs, 1916; RG 16; NACP.

the heart of their many objectives, these organizations expressed hope that the club work would bring “business men of the community in close personal contact with this work and the young farmer.”¹⁴²¹ In a similar fashion, when two extension professors at the University of Illinois published “Corn Growing: A Manual for Corn Clubs” in 1917, they hoped that their text would “develop men and women of the right sort,” presumably those who would work with the agricultural community’s most progressive leaders.¹⁴²²

Following Smith-Lever, the USDA stressed similar programs and objectives with non-white youths.¹⁴²³ Through Tuskegee-based county agents, “Negro” corn club boys also followed USDA directions for raising acres of corn in hopes of winning prizes.¹⁴²⁴

[Image 6.22] And when, as during June of 1914, Tuskegee agents learned that adult “colored farmers” were interfering with their boys’ corn club projects “by not allowing them to follow the instructions given them,” these representatives of southern agricultural modernization pointed out that “each farmer should do all he can to help his boy follow the directions,” which meant subscribing to the instructions which the USDA had crafted.¹⁴²⁵ The Department’s emphasis on youths even stretched across the ocean. In the early 1920s, the USDA introduced corn clubs to Guam with the expectation that

¹⁴²¹ L.N. Duncan and I.B. Kerlin, *Program of a Community Organization Day for a Boys’ Corn Club*, Circular 1 (Auburn: The Alabama Polytechnic Institute Extension Service, January, 1916).

¹⁴²² Aretas W. Nolan and James H. Greene, *Corn Growing: A Manual for Corn Clubs* (Chicago: Row, Peterson and Company, 1917), 5, 7, 64-79.

¹⁴²³ Institutional memory of USDA work with “Negro farmers” is scant. See, however, Reck, *The 4-H Story*, 133-140. For a brochure promoting the First Annual Session of the Southern Negro Boys and Girls 4-H Conference, held at Tuskegee, December 8-10, 1925, which included a “Ten-ear Seed Corn Judging Contest” and a Corn Bread Making Contest, see item in GC, 1115, Boys’ and Girls’ Clubs, 1925; RG 16; NACP. Other sources on African American farm youth include (equally scant) histories of the New Farmers of America: C. Strickland, *New Farmers of America in Retrospect: The Formative Years 1935-1965* (Homestead, TX: Joyco Printing, 1994); Dexter B. Wakefield and B. Allen Talbert, “Exploring the Past of the New Farmers of America (Nfa): The Merger with the Ffa,” in *National Agricultural Education Research Conference* (2000); Dexter B. Wakefield and B. Allen Talbert, “A Historical Narrative on the Impact of the New Farmers of America (Nfa) on Selected Past Members,” in *28th Annual National Agricultural Education Research Conference* (2001).

¹⁴²⁴ “Great Farm Meeting: Progressive Negro Farmers Hold Diversification Conference at Court House,” enclosed in letter from Bradford Knapp to Secretary, April 2, 1915; GC, Box 196, Clippings, 1915; RG 16; NACP. See also “Boys’ Corn Club of Miller’s Ferry, Alabama,” *The Negro Farmer*, May 9, 1914, 1; “Corn Club Work among Colored Boys,” *The Negro Farmer and Messenger*, March 11, 1916, 8. Many thanks to Elizabeth Cafer du Plessis for bringing *The Negro Farmer* items to my attention.

¹⁴²⁵ “What White Boys’ Corn Clubs Have Done,” *The Negro Farmer*, June 20, 1914, 2-3.

members would modernize production on what had become a key outpost for the U.S. Navy.¹⁴²⁶



Image 6.22 / “Boys’ Corn Club of Miller’s Ferry, Alabama,” 1914.

While prizes kept many youths completing projects, year after year, extension agents found that they needed to track and publicize their successes in transforming the agricultural practices of the nation’s youths—and thereby maintain popular interest in them—in other ways. Thus to measure Smith-Lever’s efficacy and to further extend its scope, they gathered cultivation narratives from leading corn club members. In 1915, the Office of the Secretary of Agriculture carefully filed away young Roy Ashley’s cultivation narrative. The 15-year old Mississippi boy had been a member of corn clubs since 1910, when his county Superintendent of Education sponsored a club. But when he first started, he wrote, “The people around here laughed at me, and said I would not make five bushels.” He persevered, however, and in 1913 and 1914, began turning crops under, turning out animals for pasturing, manuring, and using commercial fertilizer.

¹⁴²⁶ W.J. Green, *Plans for Boys’ and Girls’ Agricultural Clubs for 1921*, vol. Extension Circular 1 (Guam: Guam Agricultural Experiment Station, October, 1920); W.J. Green, *Corn Growing in Guam for Club Members* (Guam: Guam Agricultural Experiment Station, January, 1923). Note that in 1906, the Adams Act had doubled federal funds made available to state experiment stations and directed the USDA’s OES (Alfred C. True) to supervise projects more closely. This act placed the “insular and territorial stations,” which included Puerto Rico and Guam, “under the direct supervision of the Office of Experiment Stations.” See Baker et al., *Century of Service*, 55.

Where his neighbors averaged fifteen bushels, young Ashley cleared 106. And not only did his corn bring him enough cash to buy himself a “full bred Hereford bull,” but his crops convinced his neighbors to change their methods. Now, he wrote, “the people around here are all following the method I used to raise my corn, and I think the average yield will increase fifty per cent in two years. Most of the people are going to try rotation crops...and are going to help make Mississippi a self-sustaining State.”¹⁴²⁷

Other youths’ narratives acted in similar ways to promote the Department’s mantra of efficiency, profit maximization, and progressive approaches to agriculture. During the summer of 1912 or 1915, Minnesota corn club member Warren Simpson, a “cripple from infantile paralysis,” is said to have crawled “on his hands and knees” to cultivate his club acre. In 1923, the National Committee on Boys’ and Girls’ Club Work, a private organization dedicated to increasing funds for “4-H” and led by individuals connected to major meat packing concerns, politicians, bankers, and farm bureau leaders, circulated a publication celebrating Simpson’s achievements. Through his efforts, the Committee’s pamphlet recounted, Simpson “not only succeeded in obtaining a yield of 105 bushels per acre but at the same time...he became able to walk.” Later, it noted, Simpson finished high school, took “an agricultural course at the University of Minnesota,” and became a club leader for a new generation of farmers.¹⁴²⁸

While Simpson’s disability made his narrative especially distinctive, agricultural leaders commonly circulated records of youths’ innovations and achievements among larger communities. In 1919, thirteen-year old Preston Moody grew 147.3 bushels on his competition acre in Steuben County, Indiana. According to Indiana Corn Growers’ Association chronicler F.L. Kem, Moody’s feat lay in having discovered that new methods of planting increased an acre’s yield. “Corn club contestants” like Moody, Kem advised readers of the Associations’ meeting notes, “are finding that fields of exceptional fertility will produce record yields if corn is planted either thicker in the row than usual or

¹⁴²⁷ Roy Ashley, “A Corn Club Boy,” [1915]; Boys’ and Girls’ Clubs, 1915; GC, Box 193; RG 16; NACP.

¹⁴²⁸ G.L. Noble, “From Crippled Farm Boy to Agricultural Leader,” Chicago: National Committee on Boys’ and Girls’ Club Work, 1923, 1; GC, 973, Boys’ and girls’ clubs, 1923; RG 16; NACP. Although the pamphlet states that Simpson’s feat took place in 1912, Reck suggests that it took place in 1915. See Reck, *The 4-H Story*, 141-142. For a terrific summary of the National Committee for Boys and Girls Club Work, see Gabriel Rosenberg, ““First Give Attention to the Children.” The 4-H Network, Modernization, and Experiments in Rural Governmentality” (paper presented at the American Historical Association, Boston, January 8 2011).

with the rows closer than is the common practice of planting.”¹⁴²⁹ Likewise, in 1923, the National Committee on Boys’ and Girls’ Club work celebrated another 4-H member who, in Pueblo, Colorado, had grown “113 bushels per acre under irrigation” where it was supposedly unprofitable and as a result, “demonstrated to the whole community that corn growing was exceedingly profitable.” In turn, the Committee reported, “the County is producing about 25,000 acres of corn per year...so that stockmen are able to finish their hogs and cattle ready for the market, thereby bringing greater wealth and prosperity to the whole community.”¹⁴³⁰ Writ large, the Committee hoped that their circulation of such feats would inspire others’ endeavors.

As Franklin Reck observes, such stories “were the publicity banners under which [4-H] club work grew” following Smith-Lever’s passage.¹⁴³¹ And grow, it did. Because World War I followed fast on the heels of Smith-Lever, membership in the boys’ and girls’ clubs—all of which arose out of the corn club movement—expanded from 169,000 youths to more than half a million children and between 1916 and 1918. With patriotic zeal, youths around the country grew crops, raised animals, canned vegetables, and—as conservation measures—encouraged their communities to eat anti-Kaiser corn bread and to use corn syrup in lieu of sugar.¹⁴³²

Although wartime membership levels in 4-H proved untenable in the years that followed, youthful club members’ early interactions with the USDA’s forms, contests, and county agents built important connections that not only influenced their communities—as Ashley’s narrative and the stories of Simpson and the Colorado youth imply—but also shaped their actions as adult farmers. As Gabriel Rosenberg notes, county agents frequently encouraged older 4-H youths to attend farm bureau councils, and, in turn, brought businessmen and representatives of the local farm bureau to 4-H meetings. This “close relationship,” he adds, enabled 4-H club members to “access...the

¹⁴²⁹ F.L. Kem, “Boys’ and Girls’ Club Work,” in *Twentieth Annual Report of the Indiana Corn Growers’ Association, Annual Meeting at Purdue University, Lafayette, Indiana, January 14, 1920*, ed. G.I. Christie (Fort Wayne: Fort Wayne Printing Company, 1920), 81.

¹⁴³⁰ G.L. Noble, “From Crippled Farm Boy to Agricultural Leader,” Chicago: National Committee on Boys’ and Girls’ Club Work, 1923, 8; GC, 973, Boys’ and girls’ clubs, 1923; RG 16; NACP.

¹⁴³¹ Reck, *The 4-H Story*, 142.

¹⁴³² *Ibid.*, 147-155. For girls fighting the Kaiser with bread, see Minnie E. Porter, “War Bread Club Members Helped Whip Kaiser,” *Successful Farming*, July 1919. Item held in GC, 648, Boys’ and Girls’ Clubs, 1919; RG 16; NACP.

capital needed to conduct club projects.” Through 4-H and farm bureau networks, local businessmen and bankers enabled young people to take out loans—over \$1.6 million in 1920—and introduced these future farmers to the business community.¹⁴³³

Despite the fact that the farm crisis of 1920s—caused by overproduction and precipitous drops in foreign markets and experienced by farmers in the shape of devastatingly low prices—caused some stagnation in federal extension work, such that the USDA’s extension service did not “grow beyond built-in increases in funding established in the original Smith-Lever Act,” the agricultural “club work continued and became more institutionalized” during these years.¹⁴³⁴ By 1930, 4-H clubs enrolled 822,714 children, and one-eighth of the nation’s counties employed full time youth agents for 4-H work.¹⁴³⁵ During this time, the farmers who had come to adulthood since the early 1900s and 1910s, when club work had first flourished, began to work more closely with private organizations. According to Fitzgerald, “the closure of foreign agricultural markets and abruptly falling prices for [farmers’] goods” created a decade-long “economic abyss” for farmers and prompted a “wave of farm foreclosures.” These financial catastrophes, she argues, helped establish “a relationship between the banks, the farm population, and the academic departments at state universities,” and farmers who struggled to stay afloat more readily turned to the modernizing suggestions that “urban leaders, bankers, and emerging professionals in engineering and economics” proffered.¹⁴³⁶

Given the extent to which agricultural leaders’ work with farmers—and especially the young ones—had circulated an ideology of efficiency and crafted a popular awareness of the relationship between quantities and costs of production during the run up to the decade of “economic abyss” and continued to do so with 4-H youth during the

¹⁴³³ Rosenberg, ““First Give Attention to the Children:” The 4-H Network, Modernization, and Experiments in Rural Governmentality”.

¹⁴³⁴ Wessel and Wessel, *4-H: An American Idea*, 39.

¹⁴³⁵ Jane M. Porter, “Extension Work in the United States to 1930,” 19 (Agricultural History Branch of the Economic Research Service, Feb. 22, 1973), 45-46; PC; Series XI, Box 9, Extension to 1930-draft; NAL.

¹⁴³⁶ Fitzgerald, “Accounting for Change,” 190-191. This is not unlike corn husking contests, which, between the 1920s and 1940s, fostered “associational relationships” among farmers, businessmen, newspaper editors, county agents, and leaders at extension stations and agricultural colleges and would, through those relationships, transform a farm chore into a spectacle of white masculinity, enable close study of efficient modes of harvesting, and facilitate the transition from horse-led harvesters to gas-powered tractors. These contests, Denise Dial argues, “helped extend the goals and values of industrial culture into the countryside.” See Dial, “The Organized Corn Husking Contests”.

1920s, it would seem that many of these farmers' youthful experiences with seed judging competitions, acre yield contests, profit-oriented record keeping, and procedures for taking out loans facilitated their willingness to listen to business and government leaders' suggestions during the tenuous 1930s.

Although an in-depth examination of that relationship lies beyond the scope of this dissertation, it is worth considering whether personal experiences in corn clubs may have influenced Corn Belt farmers' adoption of high-yielding hybrid corn seeds during the 1930s. Much progress had been made on improving the process of inbreeding, crossing, and selecting corn for high yield between the late 1880s and the 1920s, thanks to James Beal's work at Michigan Agricultural College, Cyril Hopkins' research on ear-to-row testing at the University of Illinois, Henry A. Wallace's work in corn breeding, the contributions of seed growers like Eugene Funk, and the cooperative projects that county agents like Perry Holden's former student and fellow corn seed gospel train speaker, Martin Mosher, undertook with farming populations.¹⁴³⁷ By 1925, in fact, the nation's agricultural experiment stations and the USDA had halted all research on seed selection in favor of hybridizing corn.¹⁴³⁸ For farmers, this meant that their decades of experience in selecting seed corn—and indeed, these institutions' earlier focus on teaching them to do so—were suddenly to be disregarded. Instead, the biological realities of hybrid corn—the difficulty of producing and tracking the multiple generations of inbred corn plants which were required to make high-yielding crosses, and the fact that a farmer could not get high-yielding results by planting the products of one year's hybrid seeds the next spring—meant that farmers had to change their approaches entirely.¹⁴³⁹ **[Image**

¹⁴³⁷ The best overview is Fitzgerald, *The Business of Breeding*. For the USDA's approach, see G.N. Collins, *The Value of First-Generation Hybrids in Corn*, Usda Bureau of Plant Industry Bulletin No. 191, Oct. 22, 1910 (Washington: Government Printing Office, 1910). On Wallace, see Joel P. Kunze, "Hybrid Corn and Henry A. Wallace's "Distinctive Rural Civilization,"" November 1987; Henry A. Wallace Collection (HAWC): RS 21/7/5; Box 5, folder 22: "Henry A. Wallace, Hybrid Corn and the Great American Agricultural Revolution." Papers and Essays on Wallace, 1987; IAST. On Mosher, see M.L. Mosher, "Plans for a State Wide Series of Field Corn Tests," 1921; MLMP; Box 2, Folder 13: Plans for a State Corn Yield Test, 1913, 1921-23, 1967, IAST; and M.L. Mosher, "Woodford County Corn Test," Eureka, Illinois c 1922; MLMP; Box 29, Folder 7: Report of a Three Years Test – Woodford County Corn Test 1922; IAST.

¹⁴³⁸ Fitzgerald, *The Business of Breeding*, 69-74.

¹⁴³⁹ For USDA publication, see Frederick D. Richey and L.S. Mayer, *The Productiveness of Successive Generations of Self-Fertilized Lines of Corn and of Crosses between Them*, Bulletin No. 1354 (Washington: Government Printing Office, 1925). For an explanation of hybrid corn, see Joe L. Robinson and Don L. Helt, *Know Your Hybrid Corn* (Ames: The Iowa Agricultural Experiment Station, 1938). Item

6.23] It is plausible, therefore, that the farmers who had grown up reading the USDA’s bulletins, participating in contests sponsored by their state’s universities and experiment stations, and were familiar with the processes for taking out loans for special agricultural projects would have been more likely than others to adopt the new kinds of corn, even though breeders asked especially high prices for those seeds.

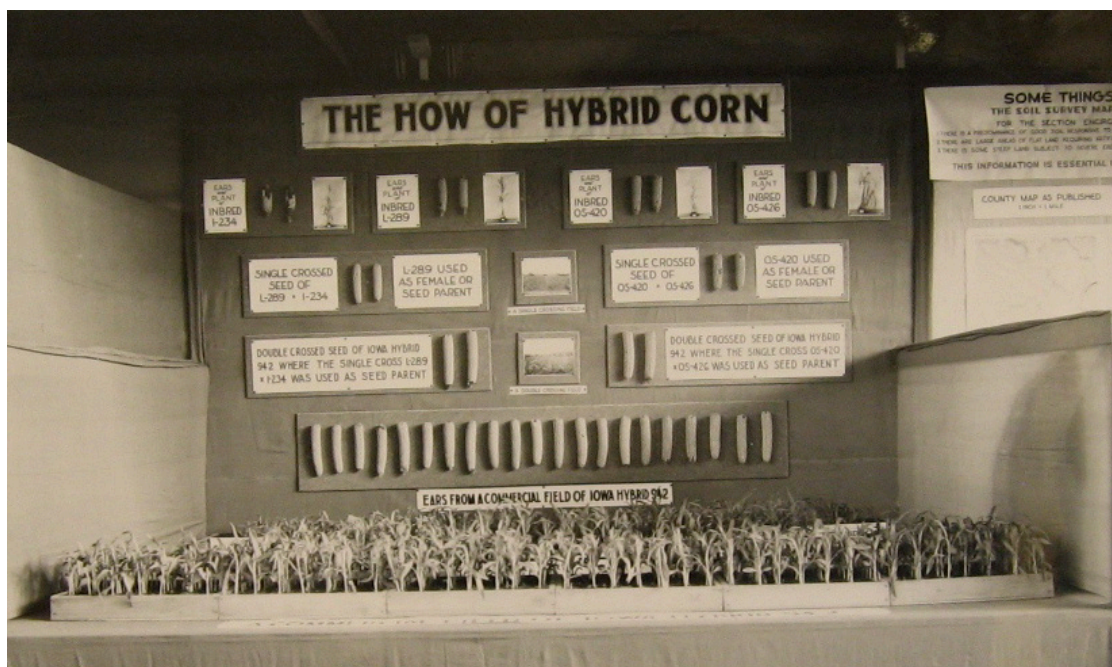


Image 6.23 / “The How of Hybrid Corn.”

Certainly, this relationship worked in the opposite direction: evidence shows that even where farmers resisted purchasing and planting the new kinds of corn, private breeders and the USDA alike promoted their new products with the children-first methods that they had established decades earlier. In 1932, for instance, the Funk Brothers Seed Company offered free samples of hybrid corn seeds and promised cash prizes to the “boys and girls under 20 years of age” who planted their corn and used the hybrid seeds to compete in yield contests. “All contestants,” however, would receive a trip to Funk Farms. These methods, Fitzgerald rightly observes, “combined the most

held in Iowa Crop Improvement Association Records, 1902-1973 (ICIA): RS 09/09/03; Box 20, Folder 2: Iowa Certified Seed Growers Directories – “Know Your Hybrid Corn” booklets; IAST. See also! Joel P. Kunze, “Hybrid Corn and Henry A. Wallace’s “Distinctive Rural Civilization,”” November 1987; HAWC; Box 5, folder 22: “Henry A. Wallace, Hybrid Corn and the Great American Agricultural Revolution.” Papers and Essays on Wallace, 1987; IAST.

successful features of extension service strategies” with youth club work. They also, she points, served “to shame parents into adopting new techniques.”¹⁴⁴⁰

Likewise, researchers at Ames and Purdue used corn growing contests to encourage a new generation of club members to experiment with hybrid seeds. In 1931, Henry A. Wallace—heir to his family’s publishing company, the corn breeder who, as a teenager, had proven Perry Holden’s ideas about aesthetics correlating to yield incorrect, and the Secretary of Agriculture who would encourage massive corn acreage and hog reduction programs through the Agricultural Adjustment Act—publicized the fact that the first and second place finishers in an Iowa corn contest the previous year had used Ames-developed hybrid corn seeds to win the test of “most economical” production.¹⁴⁴¹ Similarly, an Indiana father-son team won that state’s annual five acre yield contest for 1934 after using Purdue-developed “Hoosier Hybrid” corn seeds.¹⁴⁴² Two years later, some 300 Iowa 4-H club members would use seeds from four lines of inbred corn, supplied by Iowa State, to undertake their own “hybrid corn breeding projects.” In 1937, some two hundred more youths would cross the products of the 1936 crop, and in 1938, the children would plant the ““finished” hybrid seed.”¹⁴⁴³

Although hybrid corn itself was a new product, agricultural leaders’ belief that young people were the future of farming was hardly a novel concept. Even though a terrible drought during the middle of the 1930s prompted many farmers to adopt hybrid corn by necessity,¹⁴⁴⁴ youths’ enthusiasm—and possibly that of grown up former club members—for such scientific breakthroughs could not have hurt its remarkably fast adoption. While roughly three percent of Illinois corn and five percent of Iowa’s was planted with hybrid seeds in 1936, by 1938, no less than fifty-nine percent of Illinois corn

¹⁴⁴⁰ Fitzgerald, *The Business of Breeding*, 163. See also “New Type of Corn Resists Frosts of Spring and Fall,” *New York Times*, September 22, 1929, XX12.

¹⁴⁴¹ Henry A. Wallace, “Hybrid Wins Boys’ Corn Contest,” *Wallace’s Farmer*, February 21, 1931. Item held in ICIA; Box 16, Folder 8 News Clippings – Corn Shows 1924-1938; IAST.

¹⁴⁴² “Clinton County’s Corn Record Broken,” enclosed in George H. Bailey to Henry A. Wallace, January 28, 1935; GC, 2143, Corn, 1935; RG 16; IAST.

¹⁴⁴³ “Linn 4-H’ers Experiment with Hybrid Seed Production,” c. 1936?; ICIA; Box 16, Folder 8 News Clippings – Corn Shows 1924-1938; IAST.

¹⁴⁴⁴ E.D. Funk to C.W. Warburton, October 23, 1930; GC, 1493, Corn, 1930; RG 16; NACP.

crop and fifty percent of Iowa's was planted to hybrid seeds.¹⁴⁴⁵ By 1960, nearly all of the corn fields in the United States—even those that did not enjoy the environmental advantages of those in Illinois and Iowa—were planted to hybrid corn.¹⁴⁴⁶ As farmers exchanged their older practices of seed selection for new relationships with commercial producers of high-yielding hybrid corn, as they planted fewer acres to the grain but increased the volume they grew on each one, the nation's acre yields—that measurement of agricultural progress that had stayed so flat for so long and had captured agricultural leaders imaginations in an uncontested fashion—grew in dramatic fashion.

CONCLUSION

Between the 1890s and the 1930s, a cadre of progressive agricultural leaders agreed that American farmers ought to grow more corn to the acre and worked to make that collective dream possible. As Deborah Fitzgerald has written, “the assumption that more corn was a good thing was ever present and uncontested.”¹⁴⁴⁷ Until the introduction and commercialization of high-yielding hybrid corn seeds enabled farmers to make substantial gains in their yields, however, leaders were most successful in increasing the nation's corn production—and therefore stimulating the larger farm economy—by spreading their gospels of progress among farmers' children, especially the boys.¹⁴⁴⁸ As the early twentieth century's banner years for American agriculture gave way to the economic stagnation and depression marking the 1920s and 1930s, boys' corn club work—which crafted tight relationships between youths and local business sectors, nationwide, and evolved into the federally overseen 4-H program following Smith-Lever's passage—proved to be of utmost importance to the agricultural progressives who

¹⁴⁴⁵ Joel P. Kunze, “Hybrid Corn and Henry A. Wallace's “Distinctive Rural Civilization,”” November 1987; HAWC; Box 5, folder 22: “Henry A. Wallace, Hybrid Corn and the Great American Agricultural Revolution.” Papers and Essays on Wallace, 1987; IAST.

¹⁴⁴⁶ Nygard, “Seeds of Agribusiness”, 189-190.

¹⁴⁴⁷ Fitzgerald, *The Business of Breeding*, 71.

¹⁴⁴⁸ Although girls—like those in Nebraska who, in 1905, grew the corn they prepared in bread and other foods—certainly evinced interest in selecting, growing, and showing corn competitively during these decades, agricultural leaders explicitly focused on young men as their hope for the nation's agricultural future. Their decision to act in this way reflected and reified gendered Progressive Era divisions of labor which idealized the family in which the husband earned income while the wife, no longer considered an equal productive partner, was to focus on nonremunerative reproductive labor. For an excellent comparative study of how agricultural leaders' beliefs in Progressive era gender roles hindered women's competitive participation in corn husking contests and, at a larger level, agricultural labor in an industrial age, see Dial, “The Organized Corn Husking Contests”.

sought to make efficiency and economy the watchwords of American agricultural production. Thus although early boys' corn clubs and the eventual 4-H program hardly appear, at first glance, to have been apparatuses of state-making machinery, especially those that began out of educational concerns, they proved important training spaces for the farmers who, as adults, would implement New Deal policies and help shape the modern American state.

AFTERWORD

On choosing to make King Corn “do new work in a new world”

This project has sought to showcase the potential of an American Studies framework in illuminating the creation of our corn-based monoculture, the ethical dilemmas about what is good to eat and how those environmental sources should be treated, and how a society's food choices can and do have enormous consequences for the landscapes from which that food derives. But why now? The discourses through which Americans imagined corn and their society during key decades of the nation's industrialization inform current concerns about the ethics of eating and landscape utilization. Practices of corn-based monoculture expanded in the mid-twentieth century after high yielding hybrid corn seeds, the Haber-Bosch method for creating synthetic nitrogen, mechanized farming equipment, and government incentives enabled farmers to alter their former practices of relying on the sun for energy and diversified agriculture for ensuring soil health. Consumers' desires for corn-fattened meats and fats and corporations' creations of new ways of utilizing the oil and starch found in kernels of corn, meanwhile, stimulated farmers' incentives to accelerate their reliance upon fossil fuel-based fertilizers and equipment. Given the effects of corn's centrality in modern food systems—the total reorganization of Corn Belt landscapes which producing the grain under modern methods entails, the ecological devastation generated along the Mississippi watershed as fertilizers and soil wash out toward the Gulf of Mexico, the climate-change inducing methane gasses produced by corn-eating bovines' stomachs (which are so ill-equipped for the task that the animals must reach market weight before their food kills them by bloating), and the epidemics of Type-2 Diabetes and obesity plaguing Americans who demand cheap foodstuffs and thereby encourage the subsidization of corn over broccoli or apples—I contend that the material and ideological

history of corn's ascent to "King" holds both cautionary wisdom and hope for ascertaining more ethical modes of producing food and energy in future generations.

Aldo Leopold's "The Land Ethic" inspires this latter possibility. A scholar, a farmer, and an activist, Leopold argued that such an ethic both rejects the notion that elements of the landscape are without value and expands "the boundaries of the community to include...the land." Once the non-economic values of biodiversity are recognized, and humans and land included within it, the ethic "changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it."¹⁴⁴⁹ Leopold developed "the land ethic" in response to exploitative farmland usage and soil erosion arising during the first four decades of the twentieth century, having observed that Americans' agricultural practices and value systems had come to place the immediate needs of "man" over the long-term sustainability of "nature." His lifelong dedication to study and foster healthy ecosystems effectively blurred the distinctions and hierarchies between human and non-human actors long marking western thought. Following Leopold's footsteps, other farmer-intellectuals have articulated similar calls to balance humans' use of land for food production with needs for environmental and social justice, particularly in response to agricultural policies developed during the 1950s and 1970s encouraging corn farmers first to "get big or get out" and then to "adapt or die."¹⁴⁵⁰ Wendell Berry, for instance, has written about the intertwined politics of food, energy, and sustainable agriculture since that decade. More recently, authors like Michael Pollan and Alice Waters have encouraged fellow eaters to vote with their forks and support local, diversified, and organic farmers who enrich their lands rather than deplete it.

Having gazed at what amounts to a sea of cornfields over the course of my research—in Delaware, Illinois, Indiana, Iowa, Maryland, Massachusetts, Michigan, Missouri, Minnesota, Nebraska, Ohio, Pennsylvania, South Dakota, Virginia, and Wisconsin—I have seen (and, following liquefied manure applications, smelled) how most farmers cultivate their most valuable crop today. However "normal" or unassuming they may seem to the average automobile passenger, unending fields of uniform corn plants are a spectacle in their own right—and an intensely human product, at that.

¹⁴⁴⁹ Leopold, *A Sand County Almanac*, 204.

¹⁴⁵⁰ Wendell Berry, "Failing Our Farmers," *The New York Times*, July 6, 1999.

However, having finished this dissertation while living in Madison, Wisconsin, I have also been inspired by alternatives (the cornfields abutting I-90 en route to Chicago, notwithstanding). Here, in Madison, lies the nation's oldest restored tallgrass prairie, a complex ecosystem—thanks to Leopold's vision—that is home to birds, butterflies, insects, animals, and a healthy population of recreational users. Here, in Madison, I have heard sandhill cranes calling to each other along the marshy edges of Lake Mendota. And here, in Madison, I have come to appreciate a thriving community of people who are dedicated to and believe in the possibilities of supporting local farmers who grow diverse, organic crops and raise livestock in pastures, rather than concentrated feedlots. I have also seen how these producers *depend* on the community's commitment to support those initiatives.

It is worth returning, therefore, to the Indiana banquet in January, 1927 (and yes, to the “craftsmen in nature's workshop” who performed their ostensible mastery over nature by donning capes and cornhusk crowns for one another) with which this project begins. Perhaps, however, we ought to reframe Purdue President Edward C. Elliott's observation and suggest that “corn will remain king only so long as we” *choose* “to make him do new work in the new world.”¹⁴⁵¹ My hope is that the contingency of the moments described herein, particularly where they discuss the ways in which corporate lobbying for specific government decisions not only netted tangible economic gains but shifted the government's priorities from popular consensus to economically-oriented ideals, illuminate areas in which current government incentives encouraging unsustainable practices of corn production and creating incentives for the ubiquity of refined corn products in our foods and our fuel tanks may be understood as equally contingent and therefore, changeable.

¹⁴⁵¹ Edward C. Elliott, "Address At "Corn King" Banquet," in *Twenty Seventh Annual Report of the Indiana Corn Growers' Association. Annual Meeting at Purdue University, Lafayette, Indiana, January 12, 1927*, ed. G.I. Christie (Indianapolis: Wm. B. Burford, 1927), 49.

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