Great Lakes Incubator Farm:

Enhancing Agricultural, Environmental, & Economic Resilience in Northwest Michigan and Beyond

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Part 1: Project Report

Acknowledgements

We would like to express our heartfelt gratitude to all those who have supported us throughout this eighteen-month project.

We could not have completed this work without the unwavering support of our client, the Grand Traverse Conservation District. Your dedication to your community and your vision of a more resilient regional food system were contagious. Though this project may have started as your dream, it became a bit of each of ours, too. To Sam Wolfe and Koffi Kpachavi, especially, we thank you for your guidance and encouragement and for an unforgettable summer in Traverse City. Thank you for bringing us along on your journey, and we wish you all the best in the future.

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Lastly, we want to acknowledge all the people, organizations, and institutions that are working tirelessly to protect the future of agriculture and ensure that food is accessible and available for all. Your dedication and commitment are inspiring, and we feel honored to have contributed to this community.

Executive Summary

Unfortunately, an aging farmer population, development pressure, and high costs are putting farmland and the valuable skill sets possessed by farmers at risk. One response to this national challenge has been the rise of incubator farms. Incubator farms help new and beginning farmers establish independent agricultural businesses, and confront specific challenges that farmers face as they start out, ultimately increasing the number of viable farms. The Great Lakes Incubator Farm (GLIF) presents a unique opportunity to lower knowledge and economic barriers for new, beginning, and aspiring farmers seeking to start their own agriculture ventures in the Grand Traverse Region.

In Northwest Lower Michigan in particular, incubator farm programs are highly desirable. Agriculture is a cornerstone of the region's character, economy, and sense of place. Michigan is the second most diverse agricultural state in the country. Annually, agriculture and associated industries contribute over $104 billion dollars to the state economy and employ just over 17% of the state population (Pohl, 2023). In the Grand Traverse region alone, there are over 1,700 farms and 202,000 acres of pastureland, cropland, and woodland production (USDA, 2019b).

The Grand Traverse Conservation District (GTCD) is a community-serving organization responsible for managing and protecting the natural resources in Grand Traverse County, MI. GLIF, their newest venture located on Traverse City's historic Meyer Farm property, is a land-based agricultural program with the goal of supporting the growth and success of new and emerging farmers in Northwest Michigan. The three-person team from the University of Michigan was tasked with researching best practices related to incubator farms in order to support GTCD in their development of an incubator farm that serves its community and builds on existing local efforts to create a more sustainable, just regional food system. Through the year-and-a-half-long project, the research team developed a Strategic Planning Resource for GTCD.

To produce the Strategic Planning Resource, the research team engaged in (1) an examination of relevant literature to understand what incubator farm programs are, (2) a contextualization of incubator farm programs alongside other types of farmer training opportunities, and (3) identification of valuable trends in incubator farm success through a comparative case study of six well-established incubator farm programs. With the aim of bridging the gap between academics and practitioners, the research team integrated their research into digestible chapters that advise on topics such as program funding and evaluation, curriculum, and recruitment. This resource is adaptable to different workflows and can be read in its entirety or as separate selections.

While the research team was tasked with assisting GTCD specifically, it became clear after a few months of research how urgent the two-fold issue of farmland and farmer loss has become, and why incubator farms are necessary now more than ever. This resource has been designed to serve GLIF, though it has generalized information that can guide future incubator programs all across the United States.

Meet the Research Team

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Anna grew up in Connecticut and spent her formative years reading poetry, gardening, and exploring the woods with her siblings. Driven by her passions for writing and the environment, Anna earned a B.A. in English and Environmental Studies from Quinnipiac University in 2021. During her undergraduate career, Anna became involved in local food sovereignty efforts and came to Michigan to gain a greater understanding of food systems issues across the nation and the globe. The Great Lakes Incubator Farm capstone project allowed Anna to engage deeply with a new community and region, and get a glimpse of just how important agriculture is to Michigan's identity. Following the completion of her master's degree, Anna is returning to the Northeast to apply her knowledge of place-based sustainable food systems to regional challenges.

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Having moved to Traverse City, MI in high school, Kyla considers herself to be a "local." After receiving her B.S. in Marine Science from Eckerd College in St. Petersburg, FL she knew she wanted to return home and consider critically how she could help protect both people and the environment within her community. With a desire to work with people and help bridge a gap between the public and scientists, she pursued a master's degree at the University of Michigan. This capstone project, focused on developing an incubator farm in her hometown, provided a clear connection to help her reach that goal. Now graduated, she is excited to be returning home and putting her newly developed skills and knowledge into practice.

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Born and raised in Michigan, Lindsay grew up camping in the upper peninsula, swimming in the great lakes, and picking fruit at local orchards. After receiving her B.S.E. in Environmental Engineering, she decided she wanted to focus more on sustainability at the local and community level for her master's degree, focusing on food systems specifically. The Great Lakes Incubator Farm capstone project was an excellent learning opportunity that strengthened her interest in sustainable food systems. After graduation, she plans on using her technical skills and interest in local food to pursue a career in remote sensing and geospatial analysis in the agricultural sector.

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Meet Our Client: Grand Traverse Conservation District

Located at the Boardman River Nature Center in Traverse City, MI, the Grand Traverse Conservation District (GTCD) is a community-serving organization that cares for the people and places that make Northwest Michigan unique. GTCD's mission is "to lead, facilitate, and inspire exploration, appreciation, conservation, and restoration of our natural world." For over 80 years, the staff at GTCD has worked diligently to provide a gateway to the natural world, restore natural areas, train future generations of conservation leaders, and support sustainable, local agriculture.

"to lead, facilitation, and inspire exploration, appreciation, conservation, and restoration of our natural world"

(GTCD mission statement)

GTCD's newest venture, the Great Lakes Incubator Farm (GLIF), is a unique opportunity to bridge together all aspects of its work, fulfilling the promise it made to the community back in 1941. Utilizing the Meyer Farm property, GLIF strives to provide curriculum, resources, tools, and training for aspiring farmers in Antrim, Benzie, Grand Traverse, Leelanau, and Kalkaska counties. By providing a low-risk learning environment for their participants, GLIF strengthens both GTCD's role within the local food system and enhances relationships between farmers and their local communities. The incubator farm is envisioned as a "welcoming demonstration location where community members and the agriculturally curious can gather to learn about natural resource conservation, agriculture, soil health, food, farming systems, and innovative and regenerative practices that benefit both people and planet" (GTCD, 2022).

For more information, visit their website natureiscalling.org

Project Background

Northwest Lower Michigan has a rich agricultural history. Understanding the significance of the Great Lakes Incubator Farm (GLIF) project for both our client, the Grand Traverse Conservation District (GTCD), as well as the community they serve, requires an understanding of the Grand Traverse region* and its history.

Part One of this report begins with a discussion of the importance of place attachment to agriculture. In ensuring that GLIF honors GTCD's mission "to lead, facilitate, and inspire exploration, appreciation, conservation, and restoration of our natural world" (GTCD, n.d.), the concept of place can help guide the program's principles and can serve as a bridge between the educational programming at the farm and the District's other programming happening at the Boardman River Nature Center. From there, we move into a discussion of the agricultural history of Northwest Michigan, the region served by GTCD and GLIF. After establishing the value of agriculture to the region, we outline the challenges faced by farmers across the United States and here in Michigan. We focus our argument on the barriers faced by new, beginning, and aspiring farmers. Finally, we provide a case for why incubator farm programs are essential to food system resiliency and identify a specific gap that GLIF can fill in Northwest Michigan. Part One concludes with an introduction to our deliverable, the Strategic Planning Resource, and an explanation of the research methodology used to produce this resource.

Part Two of the report contains the Strategic Planning Resource. This portion of the report presents research findings, recommendations, and resources for successful program development of incubator farms, and can be utilized by GLIF and other incubator programs across the country.

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* Leveraging the collaborative network GTCD has already established, GLIF aims to serve new, beginning, and aspiring farmers in Antrim, Benzie, Grand Traverse, Kalkaska, and Leelanau counties. When we refer to the Grand Traverse region or the regional food system, we are referring primarily to these five counties (see Appendix A).

Place: Farmers as Caretakers of Land and Community

> "An agricultural landscape conveys meaning and purpose, as well as a shared heritage. These aesthetics often inspire a spirit of regional pride and local affinity. . . Place is first and foremost the intersection between latitude and longitude, but place as it relates to local foods is also the intersection of people and their environs"
>
> - Philip Ackerman-Leist, 2013

As Ackerman-Leist suggests, place is a critical concept in agriculture, encompassing numerous factors that contribute to the success and sustainability of farming. While practical considerations such as the environmental context are crucial for a farmer to consider, the emotional connection to the land and sense of belonging to a place that farmers form are also significant to agriculture. These factors play a vital role in a farmer's understanding and appreciation of the local agricultural landscape, and their consideration can have a profound influence on the long-term success and sustainability of farming.

Some functional factors related to place that farmers must take into account include:

Environmental Context: The climate, soil, and ecosystem conditions of a location determine what kinds of crops can be grown and what livestock can be raised, and informs the types of farming practices that should be utilized (Rose, 1995; Kime, 2021).

Resource Access: Agriculture requires access to many kinds of resources, biological to technological, including water, energy, equipment, cell phone reception, and agricultural support services (e.g., USDA Service Center). Locations can affect the cost and availability of these (Kime, 2021).

Market access: Proximity to customers and markets can impact the prices a farmer receives for their products. Long distances can necessitate additional services and related costs (e.g., packaging, shipping, etc.) to reach customers (Kime, 2021).

However, the importance of location for farmers goes beyond these functional considerations. Place can also be a source of identity and connection to community (Cresswell, 2004). For farmers, the land is more than just an opportunity to grow crops and raise livestock. The farm is a place where they raise their families, make memories, build a home, and make a living. As such, farmers often have a deep attachment to the land they work. Place attachment provides a sense of connectivity and security for farmers, encouraging a sense of community, individual well-being, and preservation of cultural heritage (Quinn & Halfacre, 2014). By viewing location as more than just a physical location, but also as a source of cultural and emotional connection, we can understand farmers as *caretakers* of the land.

Farmer place attachment also has important implications for how the land is treated, with recent research suggesting that it may promote sustainable behaviors, for both farm and community (Lincoln & Ardoin, 2016; Ryan et al., 2003). As climate change and other stressors challenge the way farmers traditionally care for their land, connection to place is also important for motivating adaptation behaviors (Amundsen, 2015). When farmers have a strong connection to the land they farm, they are more likely to adopt long-term perspectives for management, opting for practices that ensure the security of their farm into the future (Quinn & Halfacre, 2014; Ryan et al., 2003). As such, understanding the role sense of place plays is an important consideration for GLIF due to its commitment to teaching farmers "how to make an environmentally responsible living from the land while feeding our community" (GTCD, 2022).

The term “sustainable agriculture” can mean different things, and it is necessary to define it in the context of GLIF. We recognize that terms like “sustainable,” “regenerative,” and “organic” agriculture can take on a myriad of meanings based on the knowledge, experiences, values, traditions, and priorities of the user. The struggle to define these terms is evident in academia as well. A recent study done by researchers at the University of Colorado, Boulder analyzing 229 articles about regenerative agriculture, found that only half provided any definition for the term, and those that did contained descriptions that varied dramatically (Newton et al., 2020). How sustainable agriculture is defined has important implications for policy and can impact how stakeholders, including customers, perceive a farmer’s products and practices. GLIF’s aim to help the next generation of farmers establish their own farm businesses means that terminology can impact marketing decisions. Terms like “organic” or “local” have carved out their own niches in the marketplace whether or not the product embodies the meaning the customer assumes they do (Ackerman-Leist, 2013). It is necessary, then, for usvc to define what we mean when we use these terms. Combining our own understanding with the vision our client has for their community, we have decided to adopt the Young Farmers’ Coalition definition of regenerative agriculture. Thus, when we refer to regenerative or sustainable practices, we are referring to approaches to “farming and ranching that build healthy soils and ecosystems, support climate-resilient farms and communities, and address inequity in agriculture.” We recognize that these practices are not new, and acknowledge that they have been innovated and utilized by Indigenous communities for thousands of years (Ackoff et al., 2022)

The concept of place plays a critical role in understanding agriculture and the ways in which farmers’ connection to the land can promote sustainable practices. Understanding the local agricultural landscape and its relationship to the community served by GTCD is crucial for understanding the potential impact of GLIF within the regional food system.

The Region: Understanding Agriculture in Northwest Lower Michigan

> "It would be Anywhere USA without this farmland. It just wouldn't be Traverse City. You'd drive through this town and it would be just like the town before. It's a really big part of who we are, and it helps keep this place a place where everybody wants to live."
>
> – Rick Sayler, a sixth-generation farmer who cares for the land his family has owned since 1856 (Grand Traverse Regional Land Conservancy [GTRLC], 2018)

Farmland defines Northwest Michigan's landscape and, in many ways, its sense of place. In addition to producing a diverse range of crops and products, the bucolic scenery and iconic viewsheds are beloved by residents and visitors alike. The National Cherry Festival (NCF), held annually in Traverse City, epitomizes the celebration of agricultural heritage in this region. From cherry-themed food and drink, carnival rides, parades, and iconic events like the "cherry pit spit," the NCF highlights the importance of agritourism to the Grand Traverse region. A study by Grand Valley State University found that the 2022 NCF brought in over 300,000 visitors, with 73% of these visiting from outside of Grand Traverse County. Between visitor spending and festival operational spending, the 2022 NCF generated $33.4 million in economic output and supported 323 jobs (Glupker & Isely, 2022). Cherries are the most famous crop of the region, but there are many more that deserve celebration. For example, Antrim and Benzie counties both rank in the state's top 10 for potato exports. Other notable mentions in the region include apples, asparagus, Christmas trees, grapes, hops, peaches, and various other fruits, vegetables, and animal products (Taste the Local Difference, 2022; Networks Northwest, 2015; United States Department of Agriculture [USDA], 2019a).

While it is clear why visitors enjoy the region and its agricultural landscape/products, the question remains, what makes Northwest Michigan such a special place to farm? The foundation for understanding the agricultural development of GLIF's service area is based on knowledge of the region's environmental context and its history.

"If people stop and think, what attracts me to the region? Well, they come here to buy their cherries, have their wine, get local honeycrisps, and enjoy their scenic views of the bay."

- Heatherlynn Johnson-Reamer, fruit farmer on Old Mission Peninsula (GTRLC, 2018)

The Northwest Michigan landscape was shaped by glaciers which left moraines, outwash plains, many inland lakes, and predominantly sandy soils (Haswell & Alanen, 1994). The key environmental feature that has enabled the region's agricultural success is the moderating "lake-effect" of Lake Michigan which has enabled temperature-sensitive crops like fruit trees to prevail by extending the growing season and stabilizing temperatures (Warren & Vermette, 2022). However, to fully understand the unique qualities that make Northwest Michigan a prime location for farming, it is necessary to not only examine its environmental landscape but also its history of land use and development.

"This region is unique in the world, it really is. First of all, there's no place else where you have so much access to fresh water, and second, the moderating influence of the lake at this latitude creates a very unique climate that you just can't replicate. We've got the lakes wrapped around us like a blanket...it keeps us warmer a little bit longer heading into the winter, and it keeps us asleep late enough into the spring season so that when it first gets warm, everything doesn't pop out immediately, only to get frozen a few weeks later."

- Nels Veliquette of Shoreline Fruit (GTRLC, 2018)

Although the impact of European fur trading can be traced back to the 1600s, European settlers didn't begin settling in the Grand Traverse region until the 1840s. Vast swaths of hardwood-hemlock forests and proximity to the lakeshore and Great Lakes shipping lanes made the logging industry highly profitable for early industrialists, able to provide fuel for passing steamships. The arrival of the Grand Rapids & Indiana Railroad in the 1870s intensified growth and exploitation of forest resources. At the same time, fruit growing had become a popular practice, with peach, apple, pear, and plum orchards planted across the region. By the turn of the century, when it became clear to the region's settlers that the logging industry could not be sustained, agriculture and tourism became the dominant forms of economic activity (Haswell & Alanen, 1994). As the cherry crop grew in popularity and success, the first cherry festival was organized in 1926. With a state-passed resolution, it became a national celebration in 1931 (Library of Congress, 2000).

Our client, the Grand Traverse Conservation District (GTCD) was established in 1941, shortly after the conclusion of the Second World War (GTCD, n.d.). In support of the war effort, farmers in the Grand Traverse region were encouraged by the War Food Administration to increase production of certain crops in order to feed U.S. troops. For example, in Benzie County, a turkey farm raised 13,000 turkeys and another farmer produced 10 acres of tomatoes under government contract (Haswell & Alanen, 1994). However, the consequence of such activities led to a depletion of soil health. This, and the lessons learned from the Dust Bowl, highlighted the need for more soil-conscious means of production. Across the country conservation districts, such as GTCD, were established in response to the signing of the Soil Conservation Act in 1935 by President Franklin D. Roosevelt. The conservation districts were designed to provide a mechanism for local farmers, ranchers, and other landowners to work together to conserve and manage the natural resources in their communities, including soil, water, and wildlife (National Association of Conservation Districts, n.d.). GTCD has played this role, and has since spent over 80 years providing education and technical assistance to farmers, landowners, and residents throughout the Grand Traverse region to protect the natural resources that make the region special.

One important story often missing from this narrative is the contribution of indigenous peoples, namely the Anishinaabek, to the region's agricultural history. Long before the arrival of Europeans to the United States, indigenous peoples cared for the land that is now called Michigan. The Odawa and Ojibwe peoples were semi-nomadic, moving across their territory with the seasons. When in the Grand Traverse region, a subsistence economy supported the Anishinaabe way of life, which included hunting, fishing, gathering, maple syrup production, and an intercropping technique used to grow corn, squash, and beans known as the "three sisters" (Kimmerer, 2013) grown in a slash and burn clearing (Smith, 2021; Haswell & Alanen, 1994; Leelanau Historical Society, 2022). Wars fought between European settlers, including the American Revolution, saw the forced ceding of the majority of Anishinaabe lands. By 1855, the United States government had stripped the Anishinaabek of all of their territory except for a reserve located in Leelanau County, which the Anishinaabek were illegally required to re-purchase (Grand Traverse Band of Ottawa & Chippewa Indians [Grand Traverse Band], n.d.).

While Anishinaabe agricultural practices were often dismissed as “primitive,” they greatly influenced Euro-American settlers in the Grand Traverse region. As Haswell and Alanen (1994) report, settlers relied on trading with the Anishinaabek when their own food supplies ran low, borrowed the practice of maple tree tapping, and benefited from obtaining the land that had already been cleared for farming by the Anishinaabek. It is likely the prosperous Anishinaabe apple trees, documented by missionaries George N. Smith and Peter Dougherty, that encouraged the subsequent planting of orchards by settlers (Haswell & Alanen, 1994).

Since the arrival of European settlers, Anishinaabe traditions have been disrupted and largely outlawed. After years of resilient fighting for their Tribal rights, in 1980 the Tribe was officially re-recognized by the federal government as the Grand Traverse Band of Ottawa and Chippewa Indians (Grand Traverse Band, n.d.). Today, the Grand Traverse Band of Ottawa and Chippewa Indians remains an invaluable contributor to Northwest Michigan’s prosperity. One clear example of this is the Tribe’s 2% program. Twice a year, the Grand Traverse Band distributes the allotted 2% of its video gaming revenue (from Turtle Creek Casino and Leelanau Sands Casino) to initiatives that “fund local schools, public safety, and health services” throughout the region (Traverse City Tourism, 2020).

Our client, the Grand Traverse Conservation District (GTCD), has been fortunate to partner with the Grand Traverse Band on various projects throughout the years. One project evoking great pride for both organizations is their collaboration on the restoration of the Ottaway-Boardman River (Clark, 2022). This project has laid the foundation for future partnerships between these entities, with the Grand Traverse Band’s innovative work in promoting food sovereignty and sustainable agriculture through their Agriculture and Food Sovereignty Department and GLIF’s commitment to regenerative agriculture offering exciting opportunities for collaboration.

The Problem: Farms and Farmers at Risk

Incubator farm programs have a critical role to play in protecting Michigan's agricultural future. Michigan is recognized as the second most agriculturally diverse state in the nation. Annually, production agriculture, food processing, and related businesses contribute $104.7 billion to the state economy and employ over 805,000 people, or approximately 17% of the state's workforce (Pohl, 2023). In the Grand Traverse region alone, there are over 1,700 farms and 202,000 acres in pastureland, cropland, and woodland production (e.g., Christmas tree farms). This accounts for just under 15% of the total Grand Traverse land area (USDA, 2019b). However, without farmland, and more critically, without farmers who know how to manage the land, Michigan's agricultural future is uncertain.

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Challenges facing the agriculture sector in Michigan mirror trends seen across the United States. Nationwide, the number of farms fell by 3.2% between 2012 and 2017. In the same time frame, Michigan lost a much greater number at 8.7% (USDA, 2019a). Furthermore, farmers around the country are getting older. Over one-third of farmers in the Grand Traverse region are 65 years old or older (USDA, 2019b). The aging producer population is raising questions about who will take their place. In 2012, a study conducted by Michigan State University found that around 472,000 acres of farmland are currently being operated by owners who have plans to leave farming within the next decade. Furthermore, only 38% of farmers who plan to retire in the near future intend to pass on their farm as a single unit to a single heir. Moreover, the majority of farmers who are aged 75 or older and have not yet identified a successor for their farm indicated that they intend to either sell their farm or leave it idle upon retirement (Miller & Cocciarelli, 2012). As a result, significant amounts of productive farmland are at risk of being taken out of production. This is especially concerning given that family farms, passed from generation to generation, are the dominant form of agriculture in the Grand Traverse region. As of 2017, over 95% of farms in the five-county service area were reported to be family farms (USDA, 2019b). To make matters worse, the study also found that nine out of ten farmers showed no interest in mentoring their farm's potential successor (Miller & Cocciarelli, 2012). This suggests that within the next ten years, Michigan risks losing valuable agricultural land and decades of invaluable knowledge and experience from its current generation of farmers (Comer, 2019).

In addition to a retiring workforce, development pressure and trends within the industry such as consolidation, enlargement, and corporate alignment (Krischemann et al., 2004) are further threatening the future of farmland. The American Farmland Trust reported that between 2001 and 2016, 11 million acres of farm and ranchland were lost to development – the equivalent of 2,000 acres a day (Freedgood et al., 2020). In the Grand Traverse region, rapid population increases and the prominence of the region as a summertime vacation destination have put agricultural land under significant pressure for development. With the area growing in popularity, the value of land is increasing, contributing to the financial challenges for farmers (e.g., higher taxes) and thus providing an incentive for them to sell their land (Networks Northwest, 2015). These financial difficulties often lead to the fragmentation of productive farms, as large areas of land are sold and divided into smaller plots for development purposes. Unfortunately, this has resulted in a loss of 31,652 acres of farmland, representing 13.5% of the region's total farmland, between 1974 and 2017. Additionally, the average size of farms decreased by 34.4%, or 62 acres (USDA, 2019a; USDA, 2019b). Unfortunately, once this farmland is lost from production, it is rarely returned to farming.

> "You only develop farmland once. Pavement is the last crop."
>
> – Isaiah Wunsch, sixth-generation cherry and apple farmer on Old Mission Peninsula, Traverse City, MI (GTRLC, 2018)

With a generation of farmers getting ready to retire and acres of productive farmland entering the market, it is vital that a new cohort of farmers step up to protect Michigan's agricultural future. Determining how to effectively support Michigan's next generation of farmers requires an understanding of the challenges facing both new and seasoned farmers.

The 2022 National Young Farmer Survey received over 10,000 responses, with 4,344 coming from individuals who self-identified as aspiring, current, or past farmers under the age of 40 (Ackoff et al., 2022). Findings from this survey highlight both the drivers and challenges faced by the new generation of farmers, especially for those who identify as Black, Indigenous, and People of Color (BIPOC). The primary obstacle cited by young farmers is access to land. The survey responses emphasized that the ability to purchase land is a significant concern, as opposed to leasing or other means of obtaining land access. Other top challenges mentioned by young farmers included: (1) access to capital, (2) personal, family, and/or business partner healthcare costs, (3) production costs "being greater than the price they receive for their products," (4) affordable housing, and (5) student loan debt (Ackoff et al., 2022). In addition to these barriers, existing farmers are also impacted by many other stressors including working on a common enterprise with many generations of family members, seasonal variations, irregular and unpredictable income, financial investment and risk, and isolation from support systems (Walker & Walker, 2019). Farmers have become so financially stressed that studies show that many farmers (82%) need to have off-farm jobs to make ends meet (Bunge & Newman, 2018). According to a report by Networks Northwest (2015), in 2012, 62% of primary farm operators in Northwest Michigan had off-farm jobs indicating that alternative and additional income sources were necessary to support almost two-thirds of the farms in the region. There is no surprise that farming ranked among the top 10 most stressful occupations (Smith et al., 1977).

New, beginning, and aspiring farmers* face many of the same barriers and challenges identified for both young and experienced farmers; however, they have additional hurdles to surmount in launching their own agricultural enterprises. Individuals entering professional agriculture need to acquire knowledge, production, and planning skills and need to have social support networks to successfully start their new enterprise (for a review of barriers faced by new and beginning farms see Robbins-Thompson, 2019). Some of the opportunities and barriers at the individual and institutional levels that new, beginning, and aspiring farmers face as they enter into agriculture are highlighted in Figure 1.

Acknowledging how difficult it can be to navigate the agricultural sector as a beginning farmer, the United States Department of Agriculture (USDA) has invested large sums of money in the next farming generation through the Beginning Farmers and Ranchers Development Program (BFRDP). First receiving funding through the 2008 Farm Bill, the program has since allocated $20 million annually to beginning farmer initiatives that include education, training, and outreach. The 2018 Farm Bill reauthorized the program, providing mandatory funding to support education, mentoring, and technical assistance initiatives for beginning farmers and ranchers (National Institute of Food & Agriculture, n.d.). One type of approach that has received great support from the BFRDP is the concept of incubator farms**.

* The USDA defines beginning farmers as "those who have operated a farm or ranch for 10 years or less either as a sole operator or with others who have operated a farm or ranch for 10 years or less" (Ahearn & Newton, 2009). We use the terms "beginning," "new," and "aspiring" farmers to build on the USDA definition and include those individuals who may be interested in farming or have hobby farmed in the past, but have no professional farming or ranching experience in the U.S.

** An incubator farm is broadly defined as "a land-based multi-grower project that provides training and technical assistance to aspiring and beginning farmers" (National Incubator Farm Training Initiative, 2013)

Figure 1: Barriers and opportunities faced by an aspiring farmer (Sethuratnam, 2021, p. 13).

A Solution: Incubator Farms

"I have come to appreciate that agriculture is fundamentally an apprenticeship-based career. In the best of cases, a farmer has sixty or seventy chances in a lifetime to figure out how to get it right. In today's world of low agricultural margins and high land values, it is more important than ever to give beginning farmers all the tools they need for success at the very beginning of their careers. Unfortunately, many aspiring farmers are unable to connect with farmers who can teach them the necessary skills to make a living off the land – moreover, the regenerative and diversified agriculture practices that most closely align with the interests of our local residents are largely a lost art in this region. The [Great Lakes] Incubator Farm will help to educate a new generation of farmers and will allow our farmers to learn anew the practices that will enhance our local food economy."

– Isaiah Wunsch, sixth-generation cherry and apple farmer on Old Mission Peninsula, Traverse City, MI (GTCD, 2022)

Beyond maintaining its position as a top food producer nationally, training Michigan's next farming cohort is an opportunity for the State to build a resilient food system. That means cultivating new, beginning, and aspiring farmers who can not only meet the increasing demand for locally-grown, nutrient-rich crops but also sustain their livelihoods while ensuring the robustness of the State's food system against challenges such as climate change. The incubator farm, broadly defined as "a land-based multi-grower project that provides training and technical assistance to aspiring and beginning farmers" (National Incubator Farm Training Initiative, 2013), is an answer to these calls.

Incubators target new and beginning farmers with the goal of helping them to establish independent agricultural businesses, ultimately increasing the number of viable farmers and farms, and specifically confronting the challenges faced by new and beginning farmers (Ewert, 2012; Overton, 2014; Sethuratnam, 2021). While each incubator may operate with slightly different goals relevant to their local community, landscape, and the host organization's mission, they all are based on the concept of providing a structure for training, resource sharing, technical assistance, and integrating sustainable agriculture lessons.

Incubator farm programs have become increasingly important as a non-traditional pathway into farming for those from non-farming backgrounds. Traditionally, farming knowledge was passed down through generations, but with the decline of family farms, there is a need to find other ways of recreating the experiential learning model of intergenerational knowledge transfer (Laforge & Levkoe, 2018 as cited in Sethuratnam, 2021). As illustrated in the 2022 National Young Farmer Survey, 78% of young farmers are not from farm families and identify as first-generation farmers (Ackoff et al., 2022). Research has demonstrated that farmers learn best using informal, linear, hands-on methods from fellow farmers (Comer, 2019). Incubator farm programs thus play an important role in the development of new farmers by mimicking traditional learning pathways, especially those using apprenticeship models, connecting new farmers with more experienced ones (Sethuratnam, 2021).

Beyond skill development, incubator farms also provide new and beginning farmers with a safe place to experiment, take risks, and make mistakes without the financial burden of starting an independent farm business (Sethuratnam, 2021). For individuals entering agriculture, having low-risk environments to learn in is essential due to the inherent unpredictability of farming. Pragmatist philosophy asserts that knowledge is not static or fixed but dynamic and context-dependent. It emphasizes learning through action, experience, and experimentation rather than relying solely on theoretical or abstract knowledge (Dewey, 1986). For farmers, this means being adaptable and flexible in response to changing conditions and challenges (e.g., weather, soil conditions, pest management, market demands, etc.; Finley & Cullen, 2014). Pragmatist philosophy also emphasizes the importance of collaboration and communication. Incubator farms facilitate this learning process by offering a collaborative environment where farmers can learn from one another and share knowledge and expertise (Sethuratnam, 2021). In today's rapidly changing and unpredictable environment, farmers must be adaptable to navigate various challenges, including climate change, economic pressures, and shifting consumer preferences (see Figure 1). By providing a safe space for "small experiments" (De Young, 2014), incubator farms help farmers develop the skills and knowledge needed to find creative solutions to the problems they face.

> "Many potential new farmers have a steep learning curve when it comes to food production. This lack of experience places a premium on the existence of programs that give prospective farmers opportunities for hands-on experience, while testing their interest and desire to become farmers"
>
> - Hamilton 2011, p. 557 (as cited in Sethuratnam, 2021)

Arguably, incubator farms provide an ideal setting to cultivate farmers that are able to meet the challenges of the 21st century (e.g., climate change) and who will contribute to a more resilient and sustainable agricultural system. The 2022 National Young Farmer Survey found that the majority (83%) of young farmers were motivated by environmental conservation. In fact, 86% of young farmers identified their practices as regenerative (Ackoff et al., 2022). These findings are in line with other studies which have found that less experienced farmers are more likely to enact practices that are beneficial to the environment. Inwood and colleagues (2013) found that aspiring farmers are more open to innovative farming practices, and Caswell and colleagues' (2001) findings suggest that these farmers are also more likely to adopt "best management practices for soil, water, nutrient, and pest management."

New and beginning farmers' desire to incorporate more environmentally-friendly practices in agriculture coincides well with demand in the U.S. marketplace. Changes in consumer preferences have led to an increase in demand for agricultural products produced with what consumers view as sustainable farming (McCluskey, 2015; McNeil, 2019). There is evidence of these shifts in Michigan. In just five years the number of organic farms in Michigan grew by more than 50% (USDA, 2019a). For small farms in Michigan operating on one to nine acres, organic farms have become some of the most profitable. Organic farms are making 10.6 times more than the average sales of all Michigan farms of that size (USDA, 2019a). Although there are many factors encouraging "green" farming practices, it is important to acknowledge that actually enacting such practices can be difficult. Sustainable agriculture often requires a complex set of skills and knowledge, takes time to master, and can be labor intensive (Sullivan, 2003). As such, the incubator farm offers an ideal framework to promote these behaviors by providing necessary resources, educational opportunities, and support mechanisms. In fact, past research looking at incubator farms in North America has demonstrated that the majority of programs are designed to support farmers seeking to participate in more sustainable means of agricultural production (i.e., Sethuratnam, 2021; Overton, 2014).

Despite their popularity, incubator farms remain a nascent project with impacts that are difficult to assess. As of 2016, there were upwards of 130 operational incubator farms in the U.S., with most operating no longer than the past five years (NIFTI, 2016). As such, questions remain about how effective these programs are in the long term. One reason for this is that it is difficult to determine what success means in the incubator farm context as goals vary between programs (Leech et al. 2014). Furthermore, it is challenging to follow participants in these programs over an extended period of time to assess their long-term success (Sethuratnam, 2021). Additionally, Carlisle and colleagues (2019) have shown that incubator farm programs are largely fragmented and underfunded. Calo and colleagues' (2016) work indicated that many incubator farm programs don't do enough to address the structural barriers faced by new farmers. And, Laforge and Levkoe (2018) have demonstrated that incubator farm programs are not only limited in scope, but are also working within the limitations of "industrialized* and neoliberal** forms of agriculture," as opposed to the more sustainable systems that many new, beginning, and aspiring farmers have an interest in (Sethuratnam, 2021).

* Industrialized agriculture refers to a model of agriculture that involves large-scale, mechanized production systems that rely heavily on synthetic inputs such as fertilizers, pesticides, and genetically modified crops. This model often focuses on maximizing productivity and profits, and may prioritize efficiency over environmental or social sustainability (Horrigan et al., 2002).

** Neoliberalism is an economic and political philosophy that emphasizes the free market and the individual's ability to make choices in a competitive environment. In the context of agriculture, neoliberal policies may prioritize the interests of large agribusinesses and multinational corporations over small-scale farmers and rural communities. This can include policies that favor trade liberalization, deregulation, and the removal of subsidies for small-scale farmers (Hunt et al., 2013).

Nevertheless, incubator farms remain the strongest solution to facilitate both knowledge transfer and provide valuable experiential learning to those entering the agricultural sector (Sethuratnam, 2021). Ewert's (2012) study further explains how incubator farm programs' use of shared spaces enable farmers to shift control over access to resources and facilitate relationship building among a group of producers, fostering a community of growers. Sethuratnam (2021) builds on this idea, suggesting that the transformational experiences offered through incubator farms enhance participants' understanding of food systems, making them better "food citizens." While much of the discourse around incubator farms focuses on their ability to train the next generation of farmers, this is a limited narrative that overlooks the broader benefits of incubator farms in fostering a more knowledgeable and engaged citizenry.

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Filling a Need in Northwest Michigan

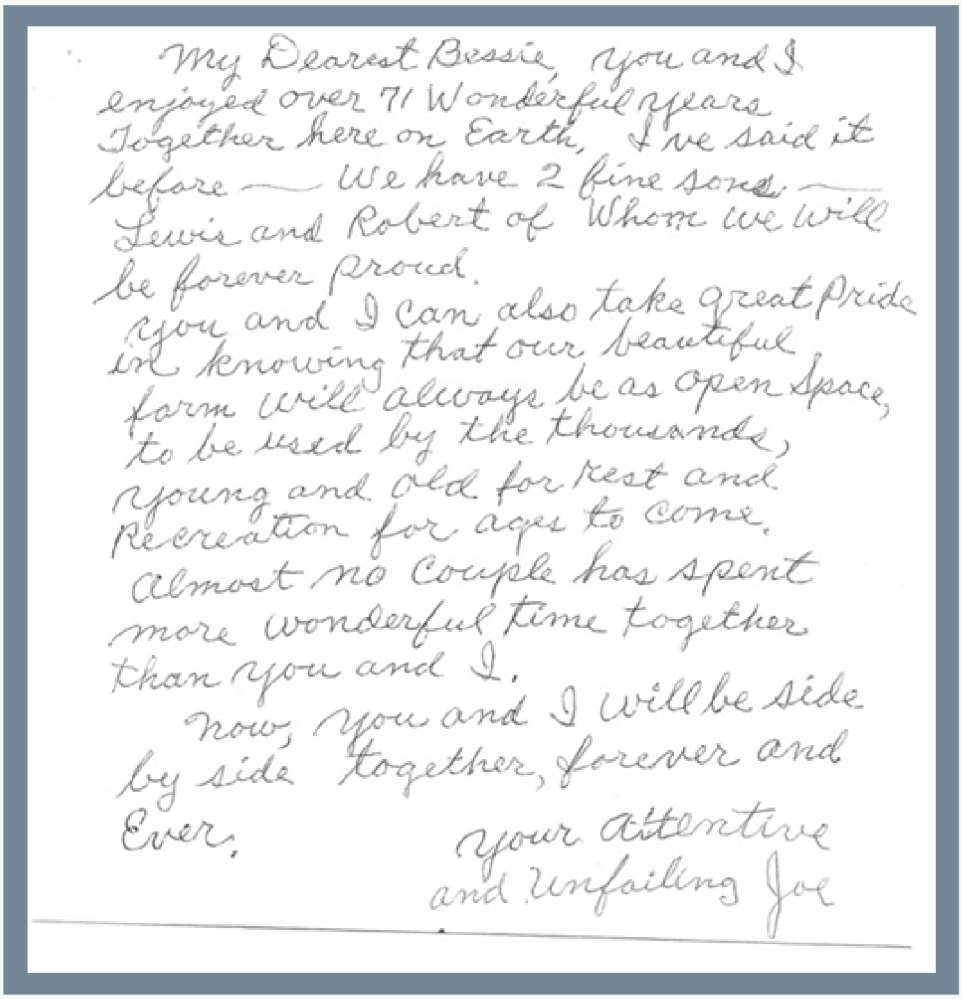
"The West Michigan Fruitbelt. . . has been identified as one of the most unique – and one of the most threatened – agricultural regions in the entire country. The diverse farms that dot our landscape continuously enrich our lives by providing fresh, local foods and unparalleled vistas. They also contribute to our local economy by providing thousands of jobs and encouraging agricultural tourism. With development pressure higher than ever before, these farms are also among the most at-risk properties in our entire region."

– Grand Traverse Regional Land Conservancy (GTRLC, 2021, p. 155)

Farmers in the Grand Traverse region are well-positioned to benefit from Michigan's proactive stance in adopting innovative policy solutions to support farmers and farmland protection (e.g., Freedgood et al., 2020; Conners, 2017; Pohl, 2023). Within the state, invaluable resources such as Michigan State University (MSU) Extension continue to produce research, tools, and other support for Michigan's farms, farmers, and the food system as a whole. Within the Grand Traverse region, the Northwest Michigan Horticulture Research Center located in Traverse City provides cutting-edge research to support local farmers, especially those working in the fruit industry (MSU Extension, n.d.). The Grand Traverse region is also home to a variety of organizations working to support a robust food system, including local land conservancies (e.g., Grand Traverse Regional Land Conservancy and Leelanau Conservancy), Crosshatch Center for Art and Ecology, Taste the Local Difference, Northwest Food Coalition, Michigan Agriculture Environmental Assurance Program (MAEAP), Groundwork Center for Resilient Communities and many others.

Unmistakably, communities across Northwest Michigan actively support protecting the rich agricultural history of the region. Over 60% of master plans across Northwest Michigan included language in favor of protecting farmland and/or enhancing the agricultural economy (Networks Northwest, 2015). For example, in 2022, residents of Old Mission Peninsula Township voted to restore a millage-funded Purchase of Development Rights (PDR program). Running since 1994, the PDR program enables property owners to protect their land in perpetuity as farmland or open space by voluntarily placing an easement or deed restriction on their property, preventing development. In exchange for this land protection, the township appraises the land to determine the difference in the value of the land if held by a developer as opposed to a farmer, and then the millage is used to pay the landowner this difference (Perkins, 2022). Another example is Networks Northwest's (2015) A Framework for Food and Farming in Northwest Michigan as part of the Framework for Our Future: A Regional Prosperity Plan for Northwest Michigan identifies ways that local zoning, incentives, and community initiatives can support and encourage farming operations while also ensuring food access and security in Northwest Michigan.

Despite these impressive efforts, a need for new farmer development and training remains in the Grand Traverse region. Without new, beginning, and aspiring farmers that are ready to take the reins from retiring farmers, the regional food system will be unable to support itself. As it stands now, there are no operational multi-farmer incubators in Northwest Michigan. While there is an existing demonstration farm and a plant science degree offered through Northwest Michigan College, there is not yet a comprehensive training program covering both the growing and business management side of owning and operating a farm enterprise. As such, the Grand Traverse Conservation District's (GTCD) Great Lakes Incubator Farm (GLIF) provides a unique opportunity to strengthen the overall resilience of the regional food system by filling a niche not yet occupied by existing regional, state, and federal programs designed to address farmland fragmentation, aging farming populations, and other matters of concern for Michigan (and national) agriculture. In addition, GLIF's location at the historic Meyer Farm property is a testament to the region's rich agricultural heritage (Figure 2).



My Dearest Bessie, you and I enjoyed over 71 Wonderful years Together here on Earth, I've said it before — We have 2 fine sons — Lewis and Robert of Whom we will be forever proud.
You and I can also take great Pride in knowing that our beautiful farm will always be as open Space, to be used by the thousands, young and old for rest and Recreation for ages to come.
Almost no Couple has spent more wonderful time together than you and I.
Now, you and I will be side by side together, forever and Ever.
your attentive and unfailing Joe

Figure 2: Letter from Joe Meyer to his wife, Bessie Meyer (née Blazek), an inspirational couple who had the foresight to protect their farmland for generations to come. Thanks to their vision and donation, the Meyer Farm is now a community resource, owned by Grand Traverse County, and home to the Great Lakes Incubator Farm. Thank you Joe and Bessie.

Image transcription:

"My Dearest Bessie, You and I enjoyed over 71 wonderful years together here on Earth. I've said it before – we have 2 fine sons – Lewis and Robert of whom we will be forever proud. You and I can also take great pride in knowing that our beautiful farm will always be as open space, to be used by the thousands, young and old for rest and recreation for ages to come. Almost no couple has spent more wonderful time together than you and I. Now, you and I will be side by side together, forever and ever. Your attentive and unfailing Joe"

Our Deliverable: A Strategic Planning Resource

We created a Strategic Planning Resource for Incubator Farms in order to support our client, the Grand Traverse Conservation District (GTCD), with their newest venture, the Great Lakes Incubator Farm (GLIF). Although this project began with a focus on GLIF, our research on incubator farms and the challenges they are working to address within the U.S. agricultural system demonstrated the importance of supporting incubator farm initiatives on a broader scale. As such, the Strategic Planning Resource is designed to share best practices of incubator farms in a way that is both compelling and accessible to any organization considering the development of an incubator program.

The document itself covers nine diverse topic areas, from program evaluation to curriculum development. Each section is designed to be practitioner-friendly, meaning that each section is succinct, does not contain academic jargon, and can be read and understood independently of the other sections. As readers of this resource may be accessing it for different reasons, we provide practical takeaways that are relevant to regions outside of our client's service area. We also provide "Spotlights," which highlight approaches used by existing programs. Each section concludes with opportunities for further exploration with a list of additional resources.

We hope the Strategic Planning Resource will support additional organizations in the development of incubator farm programs within their own communities. Ultimately, we believe that this resource is an important contribution to the broader conversation around incubator farms and sustainable food systems.

Research Methodology

The Grand Traverse Conservation District (GTCD) came to us with a beautiful vision – a land-based farm training program in Traverse City where beginning farmers with limited resources could come to learn and build the skills necessary to start their own farm businesses. GTCD tasked us with identifying best practices for successful incubator farm programs that could help inform their own incubator farm program (IFP), the Great Lakes Incubator Farm (GLIF).

To accomplish this goal, we designed a two-stage research process to better understand IFPs and trends among existing programs. Our research process was descriptive and exploratory, and not designed to evaluate the effectiveness of programs. Throughout our research, we aimed to answer two questions:

1) What do beginning farmers need to be successful?

2) What do incubator farm programs need to be successful?

Utilizing these questions as a guide, we crafted a Strategic Planning Resource that GTCD can reference as the GLIF program grows and develops. Given our clients wish to serve as a model for other organizations looking to begin an IFP, the Strategic Planning Resource contains generalized recommendations pertinent to areas outside of the Grand Traverse region.

Stage 1: Literature Review

To begin, we examined the relatively small but growing body of literature on IFPs in the United States. We sought to understand their purpose and existence in relation to other food systems topics, including farmland loss, barriers to farming, sustainable agriculture, regenerative farming practices, and regional food networks. Our research process was descriptive and exploratory, and not designed to evaluate the effectiveness of programs. After contextualizing the placement of IFPs within food systems, we focused on how these programs are strategically designed and supported over time. We accessed articles via Google Scholar and Jstors using keywords such as "new farmers," "incubator farms," "sustainable agriculture," "farm training," "land transition," and "farming barriers."

A few key papers were used as models for our research process that informed the next stage of our work. These papers, though varied in their research questions and scope, incorporated comparative analysis through surveying and case studies to better understand IFPs and other farm training programs:

Ewert (2012):

Explored the questions of (1) What are the structure and function of existing incubator farm programs? and (2) What can we learn from previous efforts to inform the development of future incubator farm programs? Through three case studies of existing IFPs, Ewert offers an in-depth evaluation of how these programs are built and what lessons they demonstrate for future programs.

Overton (2014):

Surveyed 42 farm incubator staff members in order to collect information on IFP structure and organization and to examine whether these programs addressed barriers to entry, a "civic agriculture" framework (based on Lyson, 2009), or the development of communities of practice (CoP).

Comer (2019):

Surveyed 37 organizations in the state of Michigan that provide training for specialty crop farmers. Their goal was to explore these programs' structure, offerings, participants, and collaborators in order to provide recommendations and foundational research that could be used by educators, policy makers, and beginning farmers to help them meet Michigan's agricultural challenges.

Sethuratnam (2021):

Surveyed 63 IFPs to categorize strategies for engaging with new farmers. Then, Sethuratnam analyzed effective factors to increase new farmer agency by analyzing five IFPs. Lastly, Sethuratnam conducted an in-depth analysis of one IFP to highlight the place-based nature of IFPs and ways in which this program excels at enabling "beginning farmer pathways."

Our review of academic publications was complemented by collecting a wide variety of reports, survey data, webinars, and other works produced by federal agencies, researchers, nonprofit organizations, and coalitions, who are all working to support new and beginning farmers. Because IFPs are generally led by practitioners and not academics, we found that many of the reports and sources are less focused on academic discourse but rather speak to farm managers, operators, and participants. Therefore, it was important for us to incorporate less traditional resources in our research. One such example includes the National Incubator Farm Training Initiative (NIFTI) webinar series in which existing programs were asked to discuss important components of creating and managing IFPs. We reviewed over 70% of these webinars, giving us the opportunity to hear directly from IFP practitioners (see Appendix B).

In combination with these practitioner-centered resources, we studied USDA census data and other relevant local resources (e.g., county master plans) to gain a greater understanding of our client's regional agricultural context. In addition, we spent approximately three months living in Traverse City and working with GTCD. This experience not only enabled us to observe day-to-day operations at GTCD but also provided a unique opportunity to engage with and gather information on ongoing food systems projects in the region. We did this by attending meetings and resource fairs led by organizations such as Michigan State University Extension and Taste The Local Difference. While in the Grand Traverse region, we accompanied our client on visits to several farms and partner organizations to observe field operations and gather information on opportunities for partnership with GLIF.

Finally, we reviewed IFPs and other farm training programs by examining their websites and any program materials. We explored forty-eight programs in total (see Appendix C), considering any past or present farm training opportunities in the United States. This general review deepened our knowledge of IFPs in relation to other projects that address farming and led us to our next stage of research.

Stage 2: Comparative Case Study

While the literature review provided context on-farm training opportunities across the country, we refined our research scope in order to more closely examine the most reputable incubator farm programs to date. Therefore, we pursued a comparative case study, which is a research approach in which cases are examined alongside one another to formulate or assess generalizations (Knight 2001). While it is well established that considerable variation exists among IFPs and that there is no "cookie cutter" approach to how a program can or should be designed (Leech et al. 2014), a comparative study is one of the best methods for synthesizing the newest information and emerging trends among IFPs. A comparative case study allowed us to look for patterns of findings across IFPs and incorporate those findings throughout our strategic planning resource.

While the results of the IFP comparative study may be highly context-specific, region-dependent, and difficult to generalize beyond the cases presented (Ewert 2012), it is an effective tool for incubator farm development and strategic planning (Leech et al. 2014). Further, such studies contribute to a growing body of evidence of the need to support farmer training and program development. Though significant, these programs remain a poorly understood area in food system research (Niewolny & Lillard 2010).

For our review of training programs we selected programs that met the following four sets of criteria to ensure we only looked at programs with sufficient available data:

1) Identifies as an IFP
2) Is based in the United States
3) Has been in operation for 10 or more years
4) Is included on NIFTI's National FIELD Network Comprehensive Map of Farm Incubator and Apprenticeship Training Projects

Program details were obtained through host organizations' websites, the resource database curated by New Entry Sustainable Farming Project's National Incubator Farm Training Initiative, and materials collected during the literature review. We gathered and organized information into four categories: program background, farm and land management, participant support, and operational support (see Appendices D-G).

Case Study Programs

The Agriculture and Land-based Training Association Incubator

Host: The Agriculture and Land-based Training Association
Location: Salinas, CA

The Agriculture and Land-based Training Association (ALBA) Incubator in Salinas, CA, offers land-based training in organic farm management and fits into ALBA's mission to create opportunities for low-income field laborers to advance their careers and/or pursue farm ownership.

Groundswell Incubator Farm

Host: Groundswell Center for Local Food and Farming
Location: Ithaca, NY

The Groundswell Incubator Farm, based in Ithaca, New York, provides new farmers with land, facilities, training, and one-on-one assistance. The program particularly aims to build a more diverse farming community and prioritizes admission for people of color, immigrants, refugees, and women, trans, and non-binary people. Fitting into the larger mission of the Groundswell Center for Local Food and Farming, the program empowers people from diverse backgrounds to gain skills, knowledge, and access to resources, encouraging a more just, sustainable food system for all.

Headwaters Incubator Farm

Host: East Multnomah Soil and Water Conservation District
Location: Gresham, OR

The Headwaters Incubator Program (HIP), based in Gresham, Oregon, supports the development of new farmers and farm businesses. HIP seeks to accomplish this by providing affordable access to farmland and resources, offering education and training opportunities, including one-on-one assistance, connecting participants with other growers and providers, and providing vending opportunities at farmers' markets and other outlets. HIP fits into the larger mission of the East Multnomah Soil and Water Conservation District as it addresses the need for a thriving and resilient farm community.

New Entry Incubator Farm Training Program

Host: Tufts University, New Entry Sustainable Farming Project
Location: Beverly, MA

The New Entry Incubator Farm Training Program, based in Beverly, Massachusetts, has trained and assisted the next generation of beginning farmers since 1998. The Incubator Farm Training Program offers land, training, and on-farm technical assistance to its participants, as well as access to a food hub and farmland matching services. The program addresses the larger mission of New Entry, which is to create a resilient food system by working with new farmers to build strong businesses and expertise.

Prairie Pines

Host: Community Crops
Location: Lincoln, NE

Prairie Pines, located in Lincoln, Nebraska, utilizes a community farm model where participants farm the land together and gradually gain more responsibility as they progress throughout the program. The program fits in with Community Crops' greater mission to provide education, advocacy, and experiences that support local food.

Viva Farms Farm Business Incubator

Host: Viva Farms
Locations: Skagit County and King County, WA

In Skagit and King Counties, Washington, Viva Farms Farm Business Incubator provides farmers with resources and support to create successful farm businesses. The bilingual program offers support to both beginning farmers and experienced farm workers in five target areas, including access to land, infrastructure and equipment, markets, capital, and training, fitting into the farm's mission to empower aspiring and limited-resource farmers.

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Part 2: Strategic Planning Resource for Incubator Farms


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Mission and Vision

Incubator farm programs bring together many people with different backgrounds, values, and goals. As such, it is important that stakeholders have a shared vision of what success looks like and what they want to achieve. Developing a shared vision is a necessary first step to guide decision-making and prevent conflict and confusion.

Crafting a Shared Vision

Every incubator farm program (IFP) should establish a shared vision that articulates the future it aims to create. This vision should be informed by the organization's values, assumptions, and theories of change (NIFTI, 2013). In Developing a Strategic Plan for Regional Farm Incubation, the Piedmont Conservation Council recommends that IFPs bring together key stakeholders in a vision-creation process to develop a unified mission statement (see Additional Resources; Leech et al., 2014). A well-crafted vision should be inspiring and ambitious, reflecting the program's ultimate goals. Figure 3, recommended by the National Incubator Farm Training Initiative (NIFTI), provides a theoretical framework for the visioning process.

> "Often, incubator projects are conceived of by a small number of 'activators' who have a passion and/or specialized know-how. It can be tempting to move forward quickly, motivated by sheer enthusiasm or by [the] deadline of an attractive grant, or both. A visioning process serves not only to ground the existing group with an overall vision that can be easily communicated before detailed decisions are made, but also to identify additional stakeholders early on, garnering their participation, perspectives, resources, and new ideas."
>
> (Leech et al., 2014)

As seen in Figure 3, establishing a shared vision for an IFP is crucial in defining its mission and goals, and ensuring that programming is in alignment with the organization's values, beliefs, and theories of change. For example, if a program's mission is to strengthen community awareness of and address local food challenges, community engagement efforts would align well with its goal. However, for a program whose main goal is to reduce farmers' barriers to farming, community engagement might not be a priority, and instead, efforts would be put into providing aid to overcome these challenges. An example of this could be offering housing assistance, as the 2022 National Young Farmer Survey found that 33% of young farmers identified securing housing as a challenge (Ackoff et al., 2022). Table 1 presents the mission statements of the six incubator farm programs looked at in our comparative case study.

Table 1: Mission statements from the six incubator programs from the comparative case study

Program	Mission Statement
The Agriculture and Land-Based Training Association Incubator (ALBA)	To create economic opportunity for limited-resource farmers through land-based organic agriculture education…to invest in the potential of farm workers… to grow the next generation of organic farmers…to strengthen the sustainable agriculture workforce…and to connect the community to the land and food.
Groundswell Incubator Farm	To provide beginning farmers with affordable access to land, training, and equipment in order to build a sustainable and equitable food system.
The Headwater Incubator Program	To create opportunities for underrepresented groups in agriculture to develop new farm businesses and to support the growth of sustainable agriculture in the Pacific Northwest
New Entry Incubator Farm Training Program	To foster resilience in local, regional, and national food systems by training a new generation of farmers to produce food that is nutritious, culturally connected, and accessible to all individuals. In doing this work, we develop economic opportunities for new farmers, generate new knowledge, and facilitate connections to the land to build thriving communities.
Prairie Pines Incubator Farm	To help new and beginning farmers start and grow successful farm businesses, and to promote sustainable agriculture and healthy food systems. “We promote education, advocacy, and experiences to grow local food.
Viva Farms Incubator Farm	We empower aspiring and limited-resource farmers by providing bilingual training in holistic organic farming practices, as well as access to land, infrastructure, equipment, marketing, and capital.

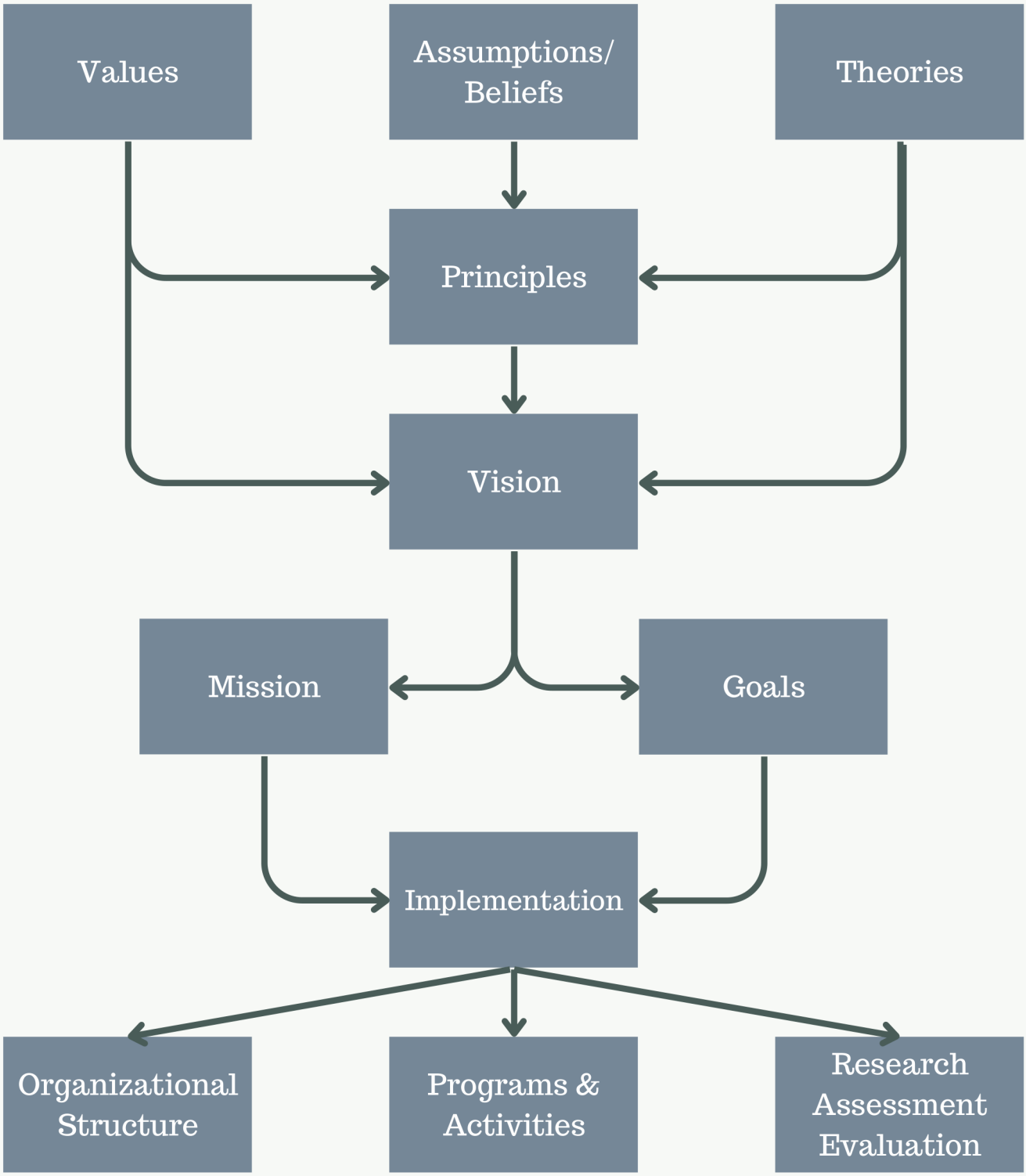


Figure 3: Theoretical framework for incubator farm program visioning process (NIFTI, 2013).

Key Takeaways

- **Engaging key stakeholders in the visioning process can help create a unified mission that aids in decision-making.**

- **It is important that IFPs develop and share clear mission statements.** Mission statements help define what success looks like and guide what services an incubator program provides and to whom.

Additional Resources

- Piedmont Conservation Council's *Developing a Strategic Plan for Regional Farm Incubation* (sections 2.1-2.3)
- NIFTI - "*The Farm Incubator Toolkit*" (Section 3.1-3.2, 3.4)
- Ewert (2012), Chapter 5 (p. 134-138) from "Understanding Incubator Farms: Innovative Programs in New Farmer Development"

Program Funding and Evaluation

For incubator farm programs (IFPs) to serve their communities for many years, it is essential that they maintain resources, mission alignment, capacity, and relevance. In this section, we start with a discussion of the different funding opportunities that IFPs can utilize to support their endeavors and become more financially sustainable. We then discuss the importance of partnerships in bolstering a program's access to resources and increasing organizational capacity. Finally, an outline of evaluation, feedback, and metrics for IFPS is provided.

Program Funding

Financial capital is a critical component of running an incubator farm program. Many incubator programs get most, if not all, of their funding from grants (New Entry Sustainable Farming Project, 2013a). In fact, the New Entry Sustainable Farming Project found that "most IFPs funding comes from federal grants and then foundation grants. Only a very small proportion comes from earned revenue and farmer fees" (2019). Reliance on grant funding is especially true among programs that are just starting. Locating, maintaining, and applying for funding opportunities requires time, staff, and effort. Many new programs do not have these resources at their disposal.

Over the long term, identifying funding sources other than grants can enhance a program's financial sustainability and reduce risk. This is because program development and success would not be contingent upon the acceptance of grant applications. Financial capital can be gained from many sources other than grants, including fundraising events, donations, fees for service, and market sales. See Table 2 for a list of funding types and examples.

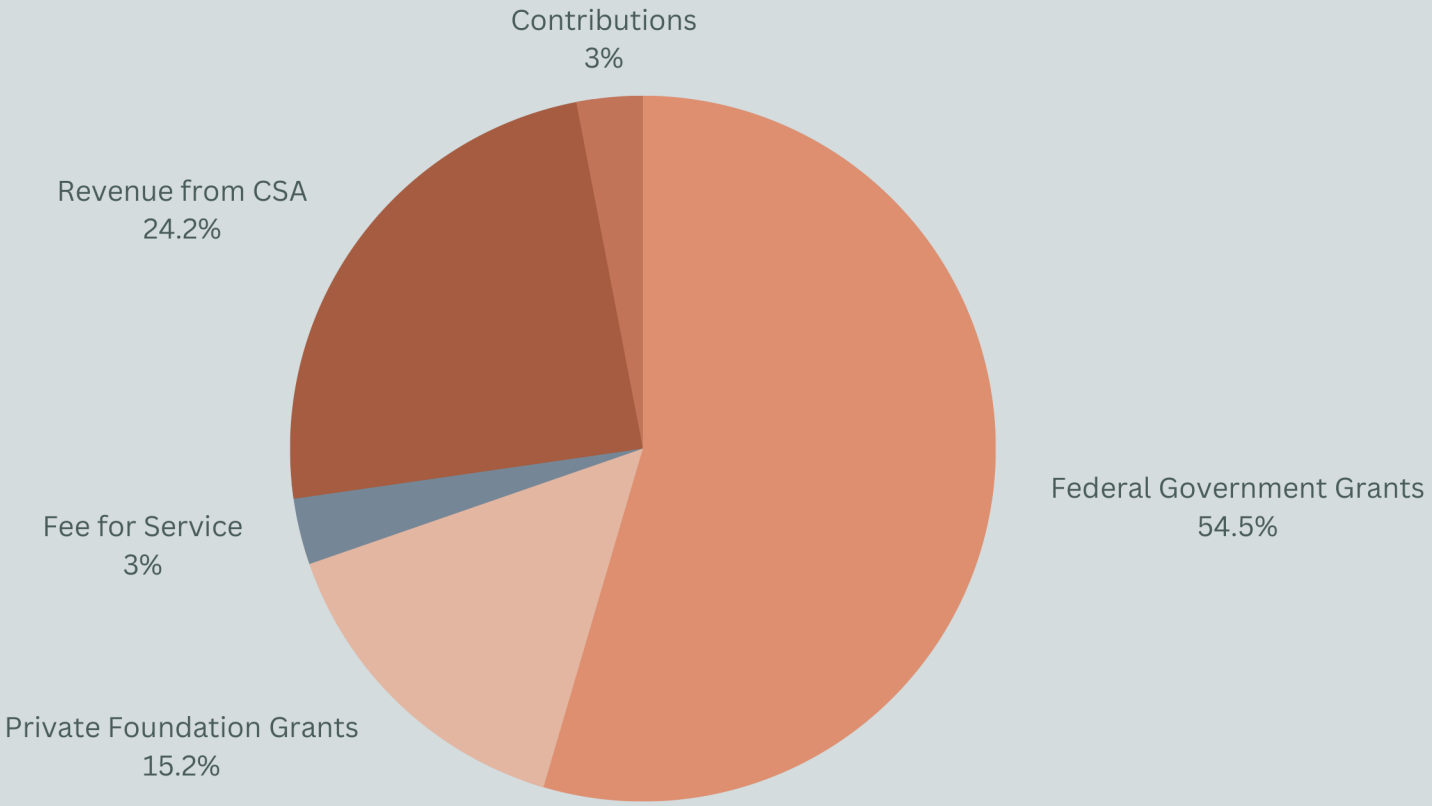
Table 2: Funding Opportunities

Funding Type	Example Sources
Grant	• Community Food Projects (CFP) • Beginning Farmer and Rancher Development Program (BFRDP) • Risk Management Agency (RMA) • Regional Risk Management Centers (RME) • Outreach and Assistance to Socially Disadvantaged Farmers and Ranchers (OASDFR) • Farmer's Market Promotion Program (FMPP) • Specialty Crop block grants (via state Department of Agriculture) • Regional Integrated Pest Management (IPM) grants • Natural Resources Conservation Service (NRCS) grants • Rural Business Enterprise Grants (RBEG) • USDA value-added producer grants • Refugee Agricultural Partnership Program (ORE/HHS RAPP) • Community development block grants from local governments
Fee for Service/Program Income	• Equipment rentals • Technical assistance hours • Rental income • Sales • Community Supported Agriculture (CSA)
Sponsorship	• Local banks • Corporations • Individual donations
Fundraising Events	• Educational workshops/conferences • Seasonal plant sales • Farm dinners • Special events and festivals

(New Entry Sustainable Farming Project, 2013a)

Spotlight: New Entry Incubator Farm Training Program

The New Entry Incubator Farm Training Program began in 1998. At this time, they relied on federal grants for over 80% of their funding source. By 2012, however, they were able to diversify their access to funds and received 31% of their funding from sources other than grants. They noted that while it is difficult to get off of the grant wagon, over time, it is possible (New Entry Sustainable Farming Project, 2013a).



Partnerships

There are many alternative types of capital, in addition to financial, that can be utilized to support an incubator project, including natural, built, social, human, cultural, and political. Relationships with other organizations and communities greatly increase access to these types of capital overall. The kind of capital these partnerships provide depends on the type of organization (Leech et al., 2014). See Table 3 for an example of the types of partners to consider depending on the capital needed by the IFP.

Table 3: Partnerships for Capital Access

Capital Type	Example Partners
Natural	Parks and recreation officials, watershed management, environmental and sustainability groups, farmers, ranchers
Built	Telecommunications representatives, utilities, businesses with usable infrastructure
Financial	Infrastructure development groups, banks, community foundations, funding agencies
Social	Clubs, people with local connections
Human	Facilitators, educators, trainers, service agencies
Cultural	Museums, historical associations, cultural groups, religious groups
Political	Elected and appointed officials, congressional staff, political groups, activists

(Leech et al., 2014)

The National Incubator Farm Training Initiative has created an excellent resource for organizing important partnership information, known as the NIFTI Partner Landscape Worksheet (Table 4). This table can be used to help IFPs maintain relationships and strategize which partnerships to focus on.

Table 4: NIFTI Partner Landscape Worksheet

Partner (or potential partner)	**Type of Partner** (i.e. program development, delivery support, policy and direction, sustainability)	**Ethics/Goal Alignment** (strong, moderate, challenging, disparate)	**Touchpoint** (how and when will you work with this partner, in what venue)	**Resources that can be leveraged** (i.e. funding, volunteers, land access, research/evaluation)

(Leech et al., 2014)

Evaluation and Feedback

Evaluation and feedback are helpful in ensuring an incubator program is operating effectively, and are often a grant requirement. Data that provides evidence of IFP impacts can also be leveraged to secure new funding opportunities. The data used can be qualitative or quantitative, however it is important to recognize that each type is acquired using different methods and provides different information.

Qualitative feedback provides an opportunity to learn more about a person's reasons, opinions, and motivations, as the questions asked are often open-ended and general (YesInsights, 2020). Because of this, qualitative analysis can provide more in-depth insights and contextualized feedback. Methods for collecting qualitative data tend to be budget friendly and include surveys, focus groups, and interviews (Qualaroo, 2023). However, due to the subjective nature of qualitative analysis, it can be difficult to compare data. Exit surveys are a good example of qualitative evaluation for IFPs. In exit surveys, participants who are transitioning off of the incubator farm answer questions about how prepared they feel to leave and start their business, what the most helpful components of the program were, what they wished they had learned, or any other questions that the program may find beneficial for educating future participants.

Quantitative data, on the other hand, lends itself well to an objective analysis. This is because quantitative data is based on observations and outcomes rather than opinions and beliefs. The data is often easy to collect and suitable for comparison and visualization. However, quantitative data can lack context, and collection/analysis methods can be costly (Qualaroo, 2023). An example of a low-cost quantitative evaluation method for an IFP is to maintain a database with information that documents new farmer success after leaving the program (e.g., number of participants who successfully started a business, average time it took to start a business, number of participants who successfully graduated the program, etc.). Additional opportunities for quantitative feedback include seasonal progress meetings, farmer evaluations, surveys, produce/value added-product tracking, and financial performance database maintenance.

It is also important for incubator farm programs to consider what metrics to use in evaluation. Incubator farm programs tend to use business and financial planning metrics to measure the progress and success of their participants. The NIFTI Toolkit (see Additional Resources) outlines some common measures of success utilized by incubator farm programs:

- Gross and net income from farming pre- and post- participation in the incubator farm program
- Number of
  - farms still farming post-participation
  - farmers served overall
  - farmers connected to farmland
  - organic/sustainable/conservation practices used
- Percentage of household income derived from farming
- Diversity of farm enterprises and markets accessed by farmers
- Estimated value of crops sold per year
- Achievement on farmer skills assessment
- Improvement in financial literacy and access to credit for farmers

However, as many incubator farm programs and beginning farmers prioritize sustainable agricultural practices, metrics such as soil quality, crop diversity, and ecosystem health should also be considered (Sethuratnam, 2021).

Spotlight: The Agriculture and Land-Based Training Association (ALBA)

ALBA, an incubator program that has been running for 21 years, attributes much of its success to early and thorough program feedback and evaluation. They found that qualitative monitoring is best accomplished through regular interactions with program participants (New Entry Sustainable Farming Project & Agriculture and Land-Based Training Association, 2013). ALBA participants provide feedback informally during discussions about plans, grievances, and land allocation. Additionally, feedback is provided at monthly farmers' meetings, after monthly trainings/workshops, and throughout the year during technical assistance sessions. ALBA has found that interacting with participants often and getting their feedback throughout the program is more effective than a survey at the end of the year. This method allows them to address issues quickly and engages participants in making improvements to the program.

For quantitative analysis, ALBA hired an evaluation consultant for the first year and a half of their program (New Entry Sustainable Farming Project & Agriculture and Land-Based Training Association, 2013). This expert created flow charts of the incubator farm program to help visualize how the program operated and to identify areas where the program could run more efficiently. Additionally, the consultant helped measure the success of the program and participants over time through the development of databases. See Table 5 for examples of metrics that ALBA found helpful to monitor.

Table 5: ALBA Monitoring and Evaluation Metrics

Metrics	
Demographics	Age, Gender, Ethnicity, Income, County, Business Status
Program Outcomes	Hours of Training/Technical Assistance Provided, Workshops held, Attendance
Farmer Outcomes	Income Generated, Profitability, Productivity (income/acre), Jobs Created/Retained
Economic/Community Development	Total Income from ALBA Farmers, Total Jobs Created/Retained, ALBA Organics sales, # Farmers who Accessed New Markets, # of and Amount of Loans Received
Internal Metrics	Average Plot Size, Average Rent, Average Tenure, Acre-Years/Farmer

(New Entry Sustainable Farming Project, 2013b)

Key Takeaways

- **Diversifying funding sources over time may increase program sustainability.** Many incubator programs receive most of their funding from federal grants, but should consider other options, too.

- **Partnerships are an important tool to help an incubator program access resources that they otherwise wouldn't.**

- **Both qualitative and quantitative types of feedback are valuable when evaluating an incubator farm program.** There are many valuable metrics to monitor to track the success of an incubator program.

Additional Resources

- Michigan Farm Link list of funding sources
- NIFTI Guide to Metrics and Evaluation for Farm Incubators
- NIFTI Webinar #9 - Metrics and Evaluation for Farm Incubators
- NIFTI's "Farm Incubator Toolkit"

Program Design

Program design for incubator farm programs (IFPs) involves planning for the learning environment and experience that participants will have. Intentionally building program design components can maximize the potential for program and participant success.

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Prerequisites

Prerequisites are an essential part of evaluating a program's applicant pool. Prerequisites can help inform the review of each applicant's experience and potential and help determine if they would be a successful candidate, ready to engage with the program.

All six incubator farm programs examined during the comparative case study outlined a set of prerequisites needed to be both an eligible and successful applicant. Beyond the primary application, program requirements varied regarding what a successful applicant needed to gain entry into the program. The prerequisite options often included a farm business plan, farm liability insurance, and a formal educational experience. This information is summarized in Table 6.

Table 6: Eligibility requirements for entry into the six IFPs studied during the collective case study

Program Name	Application	Farm Business Plan	Farm Liability Insurance	Formal Education
Headwaters Incubator Farm	✓	✓	✓	
Groundswell Incubator Farm	✓	✓		
New Entry Incubator Farm Training Program	✓	✓	✓	Farm Business Planning Class
Prairie Pines Incubator Farm	✓			Growing Farmers Training Program
Viva Farms Farm Business Incubator	✓	✓		Practicum in Sustainable Agriculture
Agriculture and Land-Based Association (ALBA)	✓			Farmer Education Course (PEPA)

Application

All six case study programs required a formal application (written or digital). The application allowed applicants to share demographic information, past experience, and interest. Applications are a helpful first step in the process of identifying potential participants, but interviews can complement them to understand applicants in their entirety better. See the “Recruitment” section for more information on applications and to view examples.

Farm Business Plan

Many of the incubator programs that we studied required some form of a farm business plan. For programs geared towards experienced farmers, the plan typically required detailed information on marketing and financing planning. Business plans can vary in the required level of detail. However, the researched programs typically expected a statement of intent and other materials to describe the business concept.

Although business plans are standard among programs geared toward more experienced farmers, they are becoming increasingly popular across all Incubator Farm Programs (IFPs). Business plans are a productive means of demonstrating a participant’s interest and commitment to a farming venture, particularly for those interested in hobby farming. In addition, a business plan can demonstrate that the applicant has a realistic vision that can be supported and actualized through the IFP.

However, some academics have suggested that IFPs should utilize a holistic management framework to better incorporate the complex goals and aspects of a start-up farm (Henderson & North, 2004; Gillespie & Johnson, 2005). Business plans set high expectations for applicants to know exactly what they want to do and how they will get there, which can be counterintuitive to the safe and experimental environment that IFPs are designed to provide. New and beginning farmers, who already face difficulty in accessing knowledge and experience related to the business of farming, may be discouraged from applying to programs that ask for a polished business plan upfront.

Four out of the six case study programs required their applicants to submit a farm business plan. Unfortunately, this requirement may be the disqualifying factor for new and beginning farmers who have not yet had the opportunity to create or refine a business plan. In fact, it may be a barrier that prevents them from applying to the program altogether. Therefore, IFPs need to decide whether or not they will ask for a business plan upfront or if they will include this as part of their curriculum (See the "Curriculum" section for more information on business development throughout the program).

Some programs may not explicitly ask an applicant for a business plan but instead include questions on the application that address financial, marketing, and product concerns. Utilizing this strategy can increase program accessibility to those with limited experience developing their business ideas while ensuring that participants are prepared with business ideas.

Farm Liability Insurance

Farm liability insurance is an option that any IFP can consider as an applicant prerequisite or integrated into the program at some point. Farm liability is a type of insurance that can protect participants and their farming venture when any unintended actions and consequences occur in the course of business. However, while farm liability insurance is a good safety measure to protect IFP participants and their businesses, finding a liability insurance provider can be difficult, and insurance may be costly (Born & Bachmann, 2006), contributing to the extreme financial barriers faced by new and beginning farmers.

> "Most farmers purchase farm liability insurance to cover expenses from farm accidents. They purchase insurance imagining a dozen things that might go wrong – like the cow that gets on the road and is hit by a car, a visitor who trips and breaks an arm, or the tractor that hits and damages the railing along a bridge"
>
> (Massey & Langford, 2019)

Two out of the six case study programs (New Entry and Headwaters) that we looked at required insurance policies for their participants. Headwaters required their farmers to carry liability insurance policies that covered both general and product liability (Headwaters Incubator Farm, 2022). New Entry required its farmers to carry a farm liability insurance policy specifically. The policy choice depends on how much coverage the host organization deems appropriate and how much liability participants have. Our study indicated that a general liability insurance policy with a set minimum was sufficient for some programs, while other IFPs had more specific requirements.

Farm liability insurance was typically an applicant prerequisite for IFPs targeting experienced farmers. Participants in these IFPs take on more responsibilities and land upfront versus programs that gradually build up participants' responsibilities and land allotments. While participant insurance is a safety measure that can support experienced farmers who take on a lot of responsibility and land, it can be exclusionary. Given the financial burden for new and beginning farmers, requiring participant insurance (often with minimums set to $1 million or more) filters out applicants from economically disadvantaged backgrounds. This may impact the applicant pool's diversity, making it difficult for limited-resource farmers to "get their foot in the door."

Regardless, farm liability insurance is an option that any IFP can consider as an applicant prerequisite or integrated into the program at some point.

Formal Education

The majority of the case study programs (four of the six) accepted participants primarily based on those who had completed the IPF's training courses. These courses range in content, as some focus solely on sustainable agriculture principles (Viva Farms), while others are business-oriented (New Entry). Programs designed for more experienced applicants with multiple years of demonstrated farming experience may choose to leave out a formal education requirement. Two examples from the case studies (Headwaters and Groundswell) did not require applicants to complete an educational program before applying to the IFP. See the "Curriculum" section for additional information on curriculum offerings and formal education.

Spotlight: Prairie Pines

One of the prerequisites for Prairie Pines, an IFP based in Lincoln, Nebraska, is the Core Skills Program. The Core Skills Program is a workshop series that prepares farmers to manage plants in a greenhouse environment, succession crop plans for continuous harvest, assess soil health with a microscope and other methods, manage business expenses, develop effective record-keeping systems, and more!

Key Takeaways

- **Formal applications are a helpful first step to understanding applicants.** Not only do formal applications screen participants on their eligibility and interest in the program, but they help the host organization collect information on their applicant pool and cohort, too. This can be useful for reporting the demographic information of whom the program serves and evaluating the effectiveness of programming. Although applications are a useful first step in the process of identifying potential participants, they can be complemented by interviews to better understand applicants in their entirety.

- **Farm liability insurance is an option for IFPs to consider as a prerequisite. This is particularly useful for programs targeting experienced farmers.**

- **While insurance is a safety measure that can support experienced farmers who take on a lot of responsibility and land, it can be exclusionary.** There are many barriers and burdens that limit new and beginning farmer success, and finances take the number one spot. IFPs requiring an insurance policy upwards of $1 million may unintentionally filter out applicants from economically disadvantaged backgrounds, which can be counterintuitive to many IFPs' goal of diversifying the farming community.

- **IFPs need to be intentional with formal education prerequisites for their participants.** Whether or not an IFP includes a prerequisite of formal education depends on its target audience.

- **Including business development inquiry questions during the application process can help IFPs assess a participant's interest and commitment without limiting program accessibility to farmers with limited business planning experience.** To increase accessibility to the program for those with unique experiences, IFPs should include inquiry questions in the application that allow the applicant to share their business development ideas, even if they are incomplete, underdeveloped, or limited in scope.

Additional Resources

- USDA: Key Resources for Planning Your Business
- University of Arizona, Department of AgriculturalResource Economics: Resentation on Business Plan Basics
- American Family Insurance - Farm Liability Insurance Coverage
- University of Missouri Extension - Farm Liability Insurance
- New Entry Sustainable Farming Project - Quick Guide to Farm Insurance

Program Length

Another area in which incubator farm programs (IFPs) vary is program length. Program length refers to the duration of time in which participants are required or eligible to participate in the land lease, assistance, and training opportunities of an IFP. In this section, we examine considerations for program length, discuss how to design a program's timeline, and describe the process for transition.

Additional Resources

Ultimately, IFPs must determine the right program length for their organization but can look to general program trends to help inform their decision. As of 2014, IFPs, on average, supported their participants for three to five years (Overton, 2014). During our comparative case study, we observed the same average to be true nine years later (Table 7).

3-5 Years

* average length of time supported by an incubator program

(Overton, 2014)

Instead of having a fixed number of years for participation, IFPs in our review were flexible and had a maximum cut-off. Five of the six programs investigated had a maximum length established, permitting participants to stay in the program for up to a set number of years. Prairie Pines was the only program investigated with a minimum number of years and a maximum number of years required. In being flexible with exit plans, IFPs maintain a good relationship with their graduates, many of whom choose to return as mentors or educators.

Table 7: Maximum number of Years/Seasons of IFP

New Entry	< 3 years
Groundswell	< 5 years
Viva	< 5 years
ALBA	< 5 years
Headwaters	< 4 years
Prairie Pines	> 3 years < 5 years

Program length cannot be determined subjectively. Two major factors, space, and funding, can influence how IFPs decide how long to run a program.

In terms of space, the IFPs studied varied in how much land they had available. We learned that the Agriculture and Land-Based Training Association (ALBA)'s Organic Farm Incubator, Prairie Pines Incubator Farm, and Viva Farms' Farm Business Incubator (Viva Farms) owned or leased one-hundred or more acres, which allowed for more participants in each cohort and provided additional flexibility with how many years the program could efficiently support participants. Headwaters Incubator Program also had considerable space due to an agreement between the EcoVillage and the Center for Transformative Action (CTA), which gave them access to sixty leased acres for farm participants to use. In contrast, Groundswell Incubator Farm and New Entry Incubator Farm Training had between ten and twelve acres for use. When there is limited production space, IFPs can consider reducing their program length to three years or less (similar to New Entry and Prairie Pines) to make space for new cohorts. During our review, we observed this. IFPs generally required transitioning participants to vacate the land they leased or rented for their venture during the program to ensure the land was available for incoming participants (Calo & De Master, 2016).

Funding is another factor that influences program length and for good reason. In 2018, a survey conducted by the National Incubator Farm Training Initiative (NIFTI) revealed that 70% of surveyed IFPs identified funding as their top challenge (NIFTI, 2018). Without sustainable and consistent funding streams, staff managing IFPs will face uncertainty each year about program longevity. For IFPs operating with limited resources and unsure of a realistic program length, they can facilitate a pilot or experimental period to test out capacities, build on their program design plans, and then apply for more significant streams of funding, such as federal grants via the Beginning Farmers and Ranchers Development Program (BFRDP). The BFRDP offers federal grants with terms of three years (National Sustainable Agriculture Coalition, 2019). See the "Program Funding and Evaluation" section to learn about different funding opportunities that IFPs can utilize for program support.

Program Exit/Transition

In addition to determining a program's duration, IFPs also decide what transition off the farm looks like for participants. Participants will need to be prepared to exit the formal structure of the program and independently establish their farming venture. Our case studies revealed that IFPs typically provided support and resources during and after graduation. Headwaters Incubator Program Farmer's Manual describes this: "Not all graduates will be able to immediately sever the connection between EMSWCD services and their young operation. To the extent possible, Headwaters will continue to provide support to program graduates in the form of business and production training, as well as access to Headwaters Farm's resources and local farmland." Many IFPs, such as Headwaters, maintain some services after graduation, even if they no longer provide land or curriculum.

Recent NIFTI surveys show that between 40 and 60% of participants are still farming after they graduate from IFPs (Magdaleno, 2019), indicating that programs are achieving notable success in preparing their participants for transition and supporting them following their exit. However, that is not to say there are no challenges. As participants exit, IFPs should prepare them with information on acquiring land, networking, and funding. IFPs should also maintain regular communication with graduates to collect feedback, make connections, and build a more comprehensive network of farmers.

Key Takeaways

- **Incubator farms programs are typically between 3-5 years long, but organizations should select the program length that aligns most with their goals and capacity.**

- **Space and funding are two of the main factors that influence IFP program length.**

- **IFPs must decide how to transition participants off the farm and can choose to continue offering limited services to those that have graduated.**

Additional Resources

- NIFTI Webinar #6 - Transitioning Farmers Off the Incubator Site
- New Entry Transitioning Farmer Program
- Michigan Farm Link
- Michigan Department of Agriculture and Rural Development (MDARD) - Starting a Farm
- Michigan State University (MSU) Extension - Introduction to Renting Farmland

Program Site

One of the greatest resources available to incubator farm participants is access to land on which to practice growing (Sethuratnam 2021). Where the land is located, how it is managed, and how it can best be utilized are important factors for incubator programs to consider when choosing satellite locations and planning infrastructure projects. Additionally, it is important to consider how people will be interacting with the land, whether they are staff members, participants, or the public. In this section, we first provide insights into key aspects of managing an incubator program site. Then, we discuss satellite locations and how they can expand an incubator program's impact.

Size and Location

Not all land on incubator farm properties can be allocated to farming. Depending on the goals of the program, land may be reserved for infrastructure, pollinator gardens, soil restoration projects, and facilities for the public (restrooms, paths, museums, shops, etc.). The amount of farmable land available to participants greatly impacts how the IFP delivers its programming. For example, if there is not enough farmable land to provide each participant with sufficient space, a communal plot can be considered. In our research, we found that most incubator programs gave participants at least ¼ acre to work on in their first year, and many increased the amount of land as participants progressed through the program.

Another factor to consider is where the farm is located. Important questions to consider include "Is it near existing markets?" "How far away do the participants live?" and "Is it in an urban or rural area?" The potential challenges and benefits a program may encounter are dependent on the answers to these questions. See Table 8 for a list of threats and opportunities related to program site location.

Table 8: Location-based Treats and Opportunities

	Threat	Opportunity
Urban	Conflicts between farmers and residential properties	Properties with existing infrastructure
	Conflicts between farmers and commercial properties	Nearby marketing opportunities
	City ordinances limiting types of production (e.g. livestock)	Target population nearby (could become reliable niche clientele)
	Need for rezoning	Increased public exposure
	Soil contamination	Substantial pool of local volunteers
Suburban	Neighborhood values	
	Future development plans	
Rural	Distance to markets (transportation costs)	Community-based
	Housing and travel costs	More land
	Site traffic	Less soil contamination

Infrastructure

A common feature of incubator programs is access to shared equipment and infrastructure. It is important to consider infrastructure including tools and equipment, water access, storage space (both for the participants' produce as well as for shared equipment), and a wash/pack facility. Indoor growing spaces, such as greenhouses and hoop houses, are also worth considering, particularly if indoor growing is part of the IFP's curriculum.

Land Stewardship

Many incubator programs not only train beginning farmers but also aim to encourage regenerative agriculture and land stewardship. Crop rotations, cover cropping, intercropping, pollinator gardens, composting, and pest management strategies are important to discuss when designing plot layouts and deciding on what land will be used for what purpose.

Seasonality

Farm work varies by season, and it is important to prepare for seasonal land changes in advance to ensure a productive and fruitful growing season. Seasonal activities may also be influenced by the specific IFP curriculum. For example, IFPs that include intercropping in their curriculum would have different planting schedules than those that do not.

Sharing Space and Conflict Resolution

Given that participants will be sharing space and running different ventures with their own priorities, conflict is bound to occur. Conflict may arise between participants, but also between management/staff and participants, and between the public and participants. There are many steps that can be taken to help avoid conflict, including establishing community rules and boundaries as well as interactive training. It should be clear to the participants who they can go to when they have questions and concerns and where they can find information on sharing equipment and land. According to the New Entry Sustainable Farming Project and the International Rescue Committee (2013), a good way to avoid conflict is to include program participants in group norms and rule-creation discussions.

Another helpful tool is interactive training, such as conflict resolution, active listening, and facilitation workshops (Litfin, 2014). New farmers will be cycling through the program over the years, so it is important to establish a process through which cohorts can interact and collectively work together on shared land. For IFPs with a public education component, problems may arise if it is not clear where visitors are allowed to go. Clear paths and signage are important to prevent plots from being tampered with. When conflict inevitably does occur, it is beneficial to frame it as a community-building opportunity and revisit or refresh group norms with those involved.

Responsibilities and Management

There are many components of an incubator farm that need to be managed to keep everything running smoothly. A farm manager is responsible for maintaining equipment and infrastructure, as well as land that participants are not responsible for. A land committee consisting of the farm manager, interested participants, IFP staff, and members of an advisory committee can be utilized to determine land-use plans and develop projects for land stewardship. A landlord is needed to manage land distribution among participants. Finally, there may need to be a security team to manage public interactions with the land.

Satellite Locations and Farms

To expand IFP impact and reach, satellite locations and farms should be considered. **Satellite locations** are additional plots of land managed by incubator programs that provide more space for program participants to utilize for their businesses. They not only provide more farmable acreage but can also increase conservation and regenerative farming capacity. Additionally, depending on where and how the land is acquired, partnerships with local land stewardship organizations can be utilized to strengthen relationships and community awareness about environmental causes. Another benefit to satellite locations is that they may open the door to markets that were previously out of reach because of transportation costs.

Satellite farms, on the other hand, are existing farms that agree to host incubator participants on their land. Bringing participants and existing farmers together creates a pathway for work, experience, equipment, and knowledge sharing that may benefit both the participant and the local food system community. Once a network of satellite farms is established, it is helpful for incubator programs to provide a list of farms for the participants to choose from and facilitate the process of connecting them. However, allowing participants to find and establish new partnerships themselves can be an excellent way for them to network and take charge of their experience in the program.

Spotlight: Viva Farms Farm Business Incubator

The Farm Business Incubator program at Viva Farms has added two satellite locations to its original site over the 13 years it has been in operation (Viva Farms, n.d.). The Skagit County Incubator, the program's original site, hosts 25 acres of farmable land and a wash/pack facility. The Skagit County Ag Park was their first satellite location and provides 45 acres of land to participants who are interested in commercial farming. This added space gives them the ability to scale up production. The King County Incubator location is the newest addition and is situated near the greater Seattle metropolitan area. Due to its proximity to a large urban center, the Kind County Incubator site allows participants to have smaller-scale and more intensive farming operations.

Key Takeaways

- **The size and location of an IFP impact the amount of land and types of markets participants have access to.**
- **Land stewardship practices depend on incubator program goals, many of which emphasize regenerative agriculture.**
- **Conflict is bound to arise when people share space; it is important to have clear pathways for conflict resolution.**
- **Satellite locations and farms provide incubator programs with additional land and mentorship connections to further their reach and impact.**

Additional Resources

- USDA tools for managing small acreage
- NIFTI shared equipment agreement form
- NIFTI - "The Farm Incubator Toolkit"

Pricing Structure

In our review, we learned that finances are one of the most significant barriers for new and beginning farmers. Incubator Farm Programs (IFPs) must decide what they can offer their participants and for what price. The case studies indicated that IFP pricing structures incorporated reduced rates for land leases, equipment renting, and training. This is done to reduce the financial burden of starting a new farm business for beginning farmers. This section examines the different strategies for setting and managing pricing for land leases, participant fees, and equipment fees.

Cost Transparency

In marketing the program to potential participants, IFPs should be transparent about the fees required to gain entry. By outlining each component of the program and its respective costs, IFPs can better support prospective participants in preparing for the financial commitment of the program. Our research found that IFPs had pricing sheets available through the National Incubator Farm Training Initiative (NIFTI) online resource center and on IFP websites, allowing for open access. Open access to this information ensures that participants are aware upfront of costs and will remain committed to the IFP.

Land Lease, Participant Fees, and Equipment Fees

Pricing for IFPs typically includes three types of fees. The first fee type is a land lease to grant participants growing space for their business ventures. The second fee type covers activities and opportunities for participation in the IFP, such as the curriculum, staffing, technical assistance, mentorship, events, and more. The third fee type is for equipment and tools. In our comparative case study, the third fee type varied the most among programs and participants, as equipment usage heavily depends on the type of farm venture. Some IFPs also charge additional fees to cover services such as custom work, pesticide application, or greenhouse rental (Liang, 2018).

Costs depend on the number of participants IFPs accept per year, the depth of technical assistance provided, and the financial stability of the host organization itself. First, the number of participants influenced the availability of and demand for space for growing. Second, concerning technical assistance, IFPs that offered frequent one-on-one sessions for farmers to consult with mentors were more expensive. Third, we found that the financial stability of the host organization played a significant role in setting prices. Host organizations of IFPs with sufficient or excess funding had reduced prices. For example, one-way IFPS can reduce costs for participants is through the use of scholarships, which can aid in recruiting a more diverse applicant pool.

Overall, it is imperative that IFPs create a pricing structure that works for their organization and its capacity. While materials such as pricing sheets are available for newer programs to access, they should only be used as a reference point. IFPs should put a significant amount of time and effort into conferring with the host organization's financial staff to determine rates relative to the operation costs and reviewing rates each year to account for any changes.

Pay-As-You-Go-Model

A pay-as-you-go model is newer among IFPs but can be a great way to support beginning farmers who may not use every resource offered. For example, our review indicated that during the first year of a program, participants rarely used all of the equipment available to them. Therefore, creating a pricing guide for equipment rentals may be more beneficial for participants than setting a blanket fee. Additionally, some of the IFPs studied had a system where fees were progressively raised each year of participation as participants had increased income from their business ventures.

Requiring a baseline fee from participants to support programming and mentorship based on program offerings, such as technical assistance and curriculum, should be a bare minimum among IFPs. These funds are vital in assisting IFPs with general operations and paying staff such as educators and mentors.

Participant Background on Pricing Structure

IFPs may also factor in their participants' backgrounds when determining fees and set prices on a case-by-case basis. For example, one of the programs we studied, Groundswell Incubator Farm, surveyed socioeconomic status and participant background as part of their application process. They used this information, among other factors, to determine how much participants should pay for access to land and infrastructure (NIFTI, 2013). For IFPs targeting “limited resource farmers," how pricing is determined should be a carefully considered part of program design.

Key Takeaways

- **IFPs should be transparent about direct and indirect program costs when marketing to potential participants.** Programs such as New Entry and Headwaters include pricing sheets for interested parties to review.

- **It is imperative that IFPs create a pricing structure that works for their organization and its capacity.** Programs should review their fees relative to operating costs each year and ensure they are feasible for the organization's financial stability.

- **IFPs may consider a pay-as-you-go model, in which participants pay more as they increase their use of program resources.** Many programs increase their fees progressively as participants advance through the program.

- **IFPs designed for "limited resource farmers" may consider pricing that factors in participants' background and economic status.**

Additional Resources

- New Entry Incubator Farm Training Program - Services and Fees
- Iowa State University Extension and Leopold Center - A Resource Guide for Beginning Farmers: Small Farm Equipment. p. 20-21

Curriculum

Facilitating the transfer of knowledge and skills is vital to supporting the next generation of farmers (National Sustainable Agriculture Coalition 2017). Therefore, a structured curriculum is one of the most prominent features of incubator farm programs. Incubator Farm Programs (IFPs) can go beyond simply offering land and having a curriculum on farming within their program to ensure consistent information is disseminated among participants. Furthermore, IFPs can go beyond introducing foundational concepts to farming, sustainable agriculture, and business management utilizing traditional teaching methods. In this section, we discuss considerations on curriculum format, the importance of identifying participant preferences, mentorship as part of learning, and common curricular themes.

Delivery Methods

While the curriculum should have some structure to share essential knowledge with participants, the curriculum should not be limited to classroom learning and should take many forms (Leech et al., 2014). The Farm Incubator Toolkit, developed by NIFTI, details a few ways in which programs may deliver their curriculum (NIFTI, 2013):

- classroom-based learning
- field training
- online workshops
- mentorship
- peer-based learning
- one-on-one technical assistance
- training/demonstration farm

The comparative case study demonstrated that IFPs embed education throughout their program, and some programs even require a formal education experience as a prerequisite (See the "Prerequisites" section) to gain entry to the program. Regardless of when the instruction occurred, IFPs used diverse delivery methods (such as the ones above) to enforce foundational concepts of farming, sustainable agriculture, and business management. It can be daunting for new and beginning farmers to learn "everything" in just a few years, so IFPs must prioritize holistic management lessons that are tested through fieldwork and other innovative opportunities (Overton, 2014).

For cohorts with limited hands-on experience in farming, such as those from academic backgrounds, there may be a need to limit teaching via the "knowledge transfer model," in which an expert teaches material through presentation/lecture and encourage instead more hands-on experiences to build skills over time (Overton, 2014). Delivering material through action, experience, and experimentation rather than relying solely on theoretical or abstract knowledge can be an impactful way to train new and beginning farmers (Dewey, 1986).

Identifying Participant Preferences

Across the case studies, IFP curriculums were innovative and tailored to their participants' needs. Understanding the learning preferences of each cohort can assist with planning for the season ahead. It can be helpful to examine previous surveys on preferred topics in addition to surveying the specific cohort for learning needs. Sethuratnam (2021) surveyed new and beginning farmers to rate the importance of training offered and found that lessons on sustainable production were the biggest priority.

Most programs understand that some participants will enter with limited and varied farming experience, and the program will need to adapt to the cohort's specific needs. To adapt to the cohort's needs, IFPs need to survey their participants frequently in the early stages of the program to learn which content areas are more understood by their participants than others. Such surveys can also help identify learning opportunities. This information can be gathered through one-on-one interviews, group discussions, or online or paper surveys. Different styles of questions, including open-ended, multiple choice, rating, or Likert scale questions, should be utilized.

Mentorship

One of the delivery formats IFP curriculums utilize is mentorship. Mentorship opportunities match program participants with experienced farmers with well-established farming careers and, in doing so, open the door for participants to build a critical relationship with someone they trust and can look to for guidance. In addition, mentorship aligns with IFP goals to provide safe environments for participants to experiment, take risks, and make mistakes (Sethuratnam, 2021).

> "The development of these critical long-term relationships between the two real people on opposite ends of the lifeline aspires to assist beginning farmers to learn management and personnel skills."
>
> (Zeigler, 2000)

To determine potential mentorship opportunities, IFPs should frequently engage with local farmers, active or retired. IFPs can do this by hosting public meetings with each cohort, planning visits to farms in the region, and networking with local farmer groups and associations. Programs may also offer compensation to experienced farmers to incentivize the mentorship of a beginner farmer throughout the season.

Spotlight: Groundswell Incubator Farm

At the Groundswell Incubator Farm, each participant is matched with an experienced farm mentor. Groundswell pays mentor farmers for 20-30 hours of mentoring activities per season (NIFTI, 2013)

> "The farmers we work with are really interested in helping the next wave get started and succeed."
>
> - Joanna Green, Groundswell Founding Director

Curriculum Themes

Through comparative study, we observed that IFP curriculums were typically divided into two broad themes: field production education and business development.

- Field production education focuses on growing aspects of farming (e.g., understanding biological processes in the soil, basic plant biology, nutrient management, regenerative agriculture principles, harvesting, and post-harvest handling).
- Business development education typically includes business plan development, financials, risk management, and marketing.

Future IFPs should leverage other programs' materials, such as curriculum guides, and use them to guide how they structure their curriculum. Many of these resources can be accessed via the NIFTI online resource center and filtered by keywords and curriculum topics. In both field production education and business development education themes, host organizations of IFPs can partner with other entities (See “Program Funding and Evaluation”) who may have expertise outside of the host organization’s capacity and be more equipped for instruction.

Key Takeaways

- **IFPs use a diversity of delivery methods to engage participants with the curriculum.** The curriculum should be broader than classroom learning and take many forms, including on-site training and demonstration, workshops, mentorships, peer-based learning, and technical assistance.

- **IFPs should prepare more hands-on experiences for participants coming from extensions or other academic backgrounds.** Doing so can help reinforce learning and build skills over time.

- **IFPs need to survey their participants frequently in the early stages of the program.** Surveying can aid programs in identifying participants' existing knowledge, skills, and needs and using them to outline learning opportunities.

- **IFPs should engage frequently with local farmers and invite them to participate in mentorship opportunities.**

- **A strong IFP curriculum requires a combination of both field production education and business development education.**

Additional Resources

- Esch 2014 - Groundswell Center nurtures agriculture entrepreneurs
- Iowa State University Extension and Outreach and Leopold Center - Curriculum Manual
- NIFTI - Farm Incubator Case Studies
- NIFTI Webinar #3 - Curriculum Development
- NIFTI - "The Farm Incubator Toolkit"

Market Access

New and beginning farmers are up against numerous barriers when starting their farm enterprise, including access to land, knowledge, infrastructure, and markets for their products. To help their participants overcome these obstacles, many incubator farm programs (IFPs) incorporate marketing strategies into their training, help participants to identify markets, and connect participants with their networks. This section outlines different market access approaches that can be utilized by incubator farm participants. The topics include on-farm sales, community-supported agriculture (CSA), farmers' markets, marketing cooperatives as well as wholesale and institutional sales. The section concludes with additional considerations, key takeaways, and additional resources for further information and exploration.

Market Types

Markets play a critical role in the food system by connecting producers with consumers and facilitating the exchange of goods and services (Nguyen, 2018). When it comes to farming, there are many different pathways to access markets. Markets can refer to the physical places where farmers sell their products, such as farmers' markets or roadside stands. They can also include large-scale distributors, such as grocery stores, restaurants and food service companies. Each type of market opportunity has associated advantages and disadvantages that are important for IFPs to consider when determining how best to support and advise their participants. Furthermore, long-standing programs such as the Agriculture and Land-Based Training Association (ALBA) have emphasized the importance of providing their program participants with diverse market opportunities. In doing so, IFPs can (1) aid their participants in building businesses that can withstand market changes and other challenges, (2) increase access to fresh, healthy, and locally grown for their communities, and (3) improve the overall success of their program by facilitating the exchange of market knowledge and formation of connections (New Entry, 2013). Table X provides an overview of the different marketing opportunities typically offered by incubator farm programs.

Table 9: Market access opportunities offered by incubator farm programs (adapted from NIFTI, 2013a).

Market Type	Description	Pros	Cons
On-Farm Sales	On-farm sales refer to the selling of products directly from the incubator farm participants individually or collectively to the consumer on incubator farm property Examples include roadside farm stands and farm stores	Generally require less staff time as participants are primarily in charge Does not require access to vehicles or other equipment to transport goods Supports flexibility in harvest yields	Can be difficult to draw customers to your location May not provide participants with the same level of exposure to potential customers as other sales outlets Can be difficult for participants to generate enough sales to cover costs May need additional farm liability insurance to cover the program in the event of a customer injury or illness
Farmers' Markets	Farmers' markets are venues where farmers and other vendors sell their products directly to consumers. They typically operate on a weekly basis during the growing season	Provide excellent opportunity for participants to practice post-harvest handling methods, customer interactions, competitive pricing strategies, product displays, and an opportunity to monitor sales	Tend to be dependent on "good" weather Require considerable time commitment from participants (e.g., preparation, set-up, event, tear-down)

Table 9 continued: Market access opportunities offered by incubator farm programs (adapted from NIFTI, 2013a).

Market Type	Description	Pros	Cons
Farmers' Markets	Incubator farm programs typically encourage their participants to sell at one or more markets in combination with other sales outlets		Depending on the area, farmers' markets can be highly saturated and extremely competitive Often require additional costs (e.g., travel costs, display supplies, market fees)
Community Supported Agriculture (CSA)	In a CSA, customers purchase a share of a farm's harvest in advance, typically at the beginning of the growing season. CSA participants typically receive a box or bag of seasonal produce on a regular basis (usually once per week)	Protect farmers by ensuring that they have a consistent and guaranteed income Facilitate participant experimentation with new or less common crops	Administratively more complex (e.g., finding and maintaining members) Can require additional planning and growing skills (e.g., harvest schedules and crop diversity)

Table 9 continued: Market access opportunities offered by incubator farm programs (adapted from NIFTI, 2013a).

Market Type	Description	Pros	Cons
Community Supported Agriculture (CSA)	Multi-Farm CSAs involve multiple farmers who collaborate to provide a diverse array of crops to CSA members. Rather than individual farmers selling their own CSA shares, farmers work together to aggregate their produce and market it as one larger CSA program	Encourage relationship building between farmers and their customers, which can be beneficial for long-term success Multi-farm CSAs offer additional benefits of decreasing risks, administrative costs, and pressure on individual farmers	Can be difficult for incubator farm participants to meet customer expectations due to small scale plots and limited experience
Wholesale and Institutional Sales	Wholesale and institutional sales refer to selling farm products to larger buyers such as restaurants, grocery stores, hospitals, and schools. While these types of market opportunities are not commonly facilitated by incubator farm programs, they are becoming increasingly important as demand for local food grows	Develops skills and practice in maintaining product consistency, sustaining relationships with businesses, and managing finances (e.g., invoices, billing, etc.) which are especially important for when participants transition from the incubator farm to their own land and farming enterprise	Difficult for small-scale producers, especially those new to farming, to meet quality and quantity demands of larger buyers Wholesale accounts are high pressure, with the incubator farm's and their participants' reputation on the line

Table 9 continued: Market access opportunities offered by incubator farm programs (adapted from NIFTI, 2013a).

Market Type	Description	Pros	Cons
Wholesale and Institutional Sales	Aggregating products for wholesale and institutional sales is one way incubator farm programs can help their participants	Incubator farm programs that aggregate and market on behalf of their participants provide additional benefits. Not only are larger quantities more attractive to buyers, but incubator farm programs can use their collective bargaining power to negotiate better prices and terms with buyers	Beginning farmers may lack the organization and business skills needed to manage large accounts May require additional staff support, time, and assistance
Marketing Cooperatives	Marketing cooperatives are legal business entities organized for the purpose of collectively selling farm products. Together, members decide how products will be processed, packaged, distributed, marketed, and sold	Support farmers negotiate better prices and contracts through collective bargaining power Reduce risk for farmers by spreading risk and losses	Agreement on marketing and selling among members can be difficult, especially within a diverse group with different goals and priorities

Table 9 continued: Market access opportunities offered by incubator farm programs (adapted from NIFTI, 2013a).

Market Type	Description	Pros	Cons
Marketing Cooperatives		Participants benefit from shared costs, resources, skills, and knowledge	Can be time-consuming and require significant effort and commitment to form, run, and maintain Legally and financially complex and can require professional expertise and support to execute effectively

Key Considerations

There are many factors for incubator farm programs to consider when determining what type of marketing support they will offer to their participants. A few example considerations include:

Program Goals. Incubator farm programs should consider what goals they have related to marketing. Providing market access and creating on-site marketing channels can help participants earn supplemental income or can create additional revenue streams for the program depending on execution. Incubator farms should also consider whether their marketing strategies align with other long-term goals of their programs. Wholesale contracts, particularly when involving a single farmer, can encourage farming strategies such as monoculture that prioritize volume over sustainability (Barrowclough et al., 2019). Conversely, sustainable agriculture practices often involve smaller quantities of diverse crops (Sethuratnam, 2021), which can be better suited to collaborative marketing approaches that prioritize quality, relationships, and community engagement over sheer volume of production. As such, it is critical for incubator farm goals to consider their goals as well as their participants' interests when determining marketing strategies.

Resources. It is important to determine responsibility for the development and maintenance of marketing opportunities. Incubator farm programs must strike a balance between promoting participant autonomy and sustaining market channels for an extended period. Incubator farm programs should consider the staff time and resources that are available to allocate to market access, as well as the skill and experience level of program participants, when selecting the optimal market access approach for the program. For example, it is important to consider whether the program itself is responsible for developing marketing strategies or if there are partnerships that can be leveraged to do so.

Additional Insights

From our exploration of incubator farm programs and literature search, we discovered that while many incubator farm programs prioritized offering marketing support and education (Sethuratnam, 2021), incubator farm participants were largely responsible for identifying their own sales outlets (Ewert, 2012; NIFTI, 2013). To do so, participants often leveraged their association with an incubator farm program as well as capitalized on media attention and public support for the program to gain access to markets (NIFTI, 2013). Our comparative case study revealed that participants from all six programs pursued CSAs. This finding is consistent with other studies which have identified producing for local markets (i.e., farmers' markets and CSAs) as a priority among incubator farm programs (Overton, 2014; Sethuratnam, 2021). With that said, wholesale has also been ranked as a priority among incubator farm programs (Sethuratman, 2021), which points to interest among participants to expand to broader markets typically inaccessible to new and beginning farmers. One pathway in which incubator farm programs can facilitate this expansion is through "food hubs." Over half of the incubator farms studied in our comparative case study utilized food hubs to support their participants in accessing markets. See the spotlight of New Entry for an example of a food hub run by an incubator farm or the "Additional Resources" section for further information.

Spotlight: New Entry Food Hub

Located in eastern Massachusetts, The New Entry Food Hub is an example of a food hub that serves as an intermediary between local farmers and the community, offering a range of services that support the production, aggregation, distribution, and marketing of locally grown and sustainably produced foods. The hub provides direct market access for farmers through product aggregation and distribution, technical assistance on harvesting, packing, and marketing, as well as a CSA program that offers access to locally grown fruits and vegetables. Additionally, the hub facilitates direct connections between consumers and farmers through outreach, farm tours, and newsletters. Through these services, the New Entry Food Hub aims to improve economic self-reliance and food security among local farmers and expand access to healthy and culturally appropriate foods in underserved areas.

Key Takeaways

- **Providing training in marketing and market access is a key function of incubator farm programs.** The type of marketing support offered will dictate the skills developed by participants, demands on staff time, and can provide a source of income for incubator farm programs in addition to their participants.

- **There are many ways incubator farms can provide marketing support to their farmers.** Keeping in mind considerations such as project goals, program resources, community needs and demands, and staff capacity can help incubator farms select the right type of marketing support to offer their participants.

- **Diverse marketing opportunities support both incubator farms and their participants.** Additionally, the relationships developed between participants and consumers can support new and beginning farms as they transition off the incubator farm and begin their own independent farming enterprise.

- **Collaborative marketing approaches such as multi-farm CSAs and Marketing Cooperatives can increase opportunities for participants while decreasing individual burdens.** Collaborative market approaches can also support incubator farm programs in reaching other goals, such as promoting sustainable agriculture.

Additional Resources

- New Entry Sustainable Farming Project's "Guide to Starting a Multi-Farm CSA"
- NIFTI's "Farm Incubator Toolkit"
- NIFTI Webinar #4: Marketing Support for Incubator Farms
- Illinois Department of Commerce & Economic Opportunity's "Building a Food Hub"

Recruitment

Once an incubator farm program (IFP) is ready for participants, it is time for farm staff to promote the program and begin the recruitment process. Farm staff may also lean on networks and partnerships to help spread information about the program and reach prospective participants. In this section, we provide ideas for promotion and networking as well as examples of how existing IFPs recruit participants. Finally, we discuss application methods and share examples.

Promotional Materials

Effective recruitment begins by organizing information in a clear, easy, and accessible way that potential applicants can understand. It is effective to have multiple avenues for promotional materials to be seen (e.g., websites, social media, farmer manuals, flyers, listservs, etc.). IFPs should be explicit about what expectations they have for applicants, and who is best suited for their program. This can be done by including language in their marketing materials and on their website regarding knowledge expectations and opportunities.

Leech et al. created a list of specific information that is helpful to include when promoting an IFP (2014):

- Name of your incubator farm program
- Physical location(s) - with map if possible
- Length of program - starting and ending dates if possible
- Benefits of participation in incubator program
- Vision statement
- Program background - what is an incubator program and why are they important
- Important definitions - what is regenerative agriculture, who is a beginner farmer
- List of partners
- Contact information
    - Name and title of contact person
    - Phone number
    - Email address
    - Incubator farm website
    - Mailing address
    - Social media addresses
- Link to application
- Application deadline

The information listed above can be particularly helpful when participants want a quick understanding of what an incubator program is and how to apply if they are interested. The information can be adapted into different formats, such as social media posts, website pages, flyers, and brochures, to reach a wide audience. See Viva Farms' website for an excellent example of how to provide this essential information quickly and direct viewers to additional resources and application materials (Viva Farms, n.d.).

For potential participants who want a deeper understanding of what they can expect from the program, a farmer manual may be more suited to their needs. Farmer manuals are longer documents that explain the details of the program, such as information on curriculum, important dates and timelines, guidelines, safety protocols, farming practices, participant expectations, pricing structure, payments, and more. See the Headwaters Incubator Program farmer's manual for an example of how to organize this resource (Headwaters Incubator Program, 2020).

Networking

Partners and supporters of the incubator farm are excellent resources to help promote the program and further spread information. IFPs can provide materials to distribute amongst organizations and at events such as farmer's markets and fairs. Another opportunity includes professors and staff at local colleges, who can advertise the program to students interested in starting their own farm businesses. In addition to recruitment materials, maintaining and sharing the program's strategic plan is a great way to find and strengthen relationships, as partners and other local stakeholders will have a better idea of the program's goals and alignment with their own interests.

Application Materials

Once potential participants have decided to apply to the program, they will need access to an application. The specific information gathered on an application varies depending on the program's target participant and goals, but most include the following information:

- Applications contact information
- Business plan or ideas*
  - Amount of space needed
  - Crop schedule
  - Marketing and sales strategy
  - Financing strategy
- Experience and certifications
- Other needs (transportation, housing, scholarships)

*Depending on the program's target participant, applicants may not have or be required to have a business plan at the time of application. See "Prerequisites" section for more information about business plans as a requirement.

Spotlight: Groundswell Incubator Farm

Groundswell Incubator Farm has been in operation for 11 years and focuses on reducing barriers for farmers who experience systemic barriers, such as people of color, immigrants, refugees, and women, trans, and non-binary people (Groundswell Center, n.d.). To address their goal of reducing barriers for new and beginning farmers, Groundswell does not require prior farming experience. This is reflected in their application, which does not ask for an existing business plan and instead focuses on evaluating the applicant's interest in the program.

Key Takeaways

- **Promotional materials provide a brief program overview to increase interest in the program.** The information should be communicated clearly on the website, application, and other marketing materials.

- **Partnerships and networking opportunities expand recruitment capacity.**

- **Application materials vary depending on the program's specific goals and target audience.** It should be clear what level of skill is expected for those applying, as well as if there is a focus on uplifting certain identity groups (underrepresented groups, women farmers, refugee farmers, etc.).

Additional Resources

- Hilltop Urban Farm Application
- The Farm Business Development Center Application
- Farm Foundations Incubator Application

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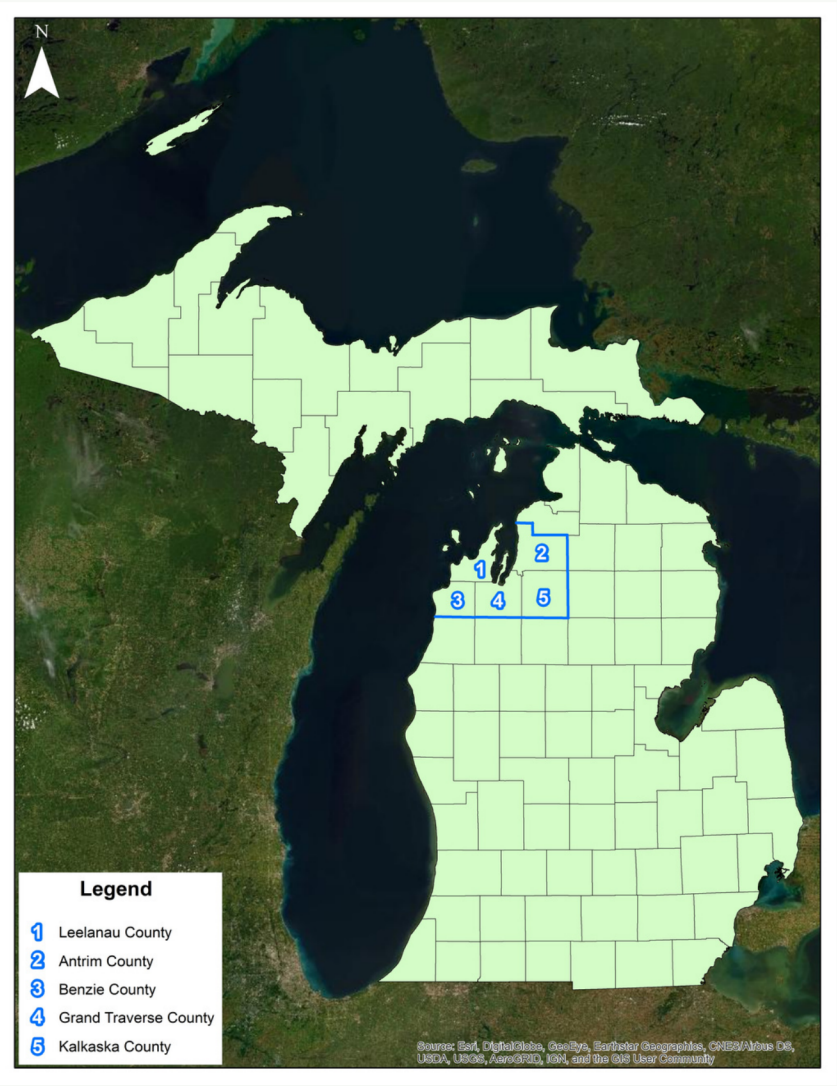
Appendices

Appendix A

Map of the five counties in the Grand Traverse Conservation District's service area



Appendix B

NIFTI webinars that were reviewed

- #1: Farm Incubators 101
- #2: Project Administration and Management
- #3: Curriculum Development
- #4: Marketing Support for Incubator Farmers
- #5: Land and Site Management
- #6: Transitioning Farmers Off the Incubator Site
- #7: Advocacy for Incubator Farmers
- #9: Metrics and Evaluation for Farm Incubators
- #12: Incubator Land Management and Teaching Ecological Land Use
- #13: Incubator Policies and Guidelines
- #15: Mainstreaming Beginning Farmers in Local Food Policy
- #16: A Conversation with Lowcountry Local First and the Responsive Evolution of an Incubator and Apprenticeship Program

The webinars can be found here:

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Appendix C

48 programs reviewed during the literature review and urls to their websites

- Agriculture and Land-Based Training Association Organic Farm Incubator (OFI): https://albafarmers.org/our-work/#incubator
- Big River Farms: https://thefoodgroupmn.org/farmers/#content
- Breeze Farm Incubator Program: https://orange.ces.ncsu.edu/2017/03/the-breeze-farm-incubator-brochure/
- CADE Farm & Food Business Incubator (FFBI): https://www.cadefarms.org/business
- California Farm Academy Farm Business Incubator: https://landbasedlearning.org/farm-academy-incubator
- Eat to Live Incubator: http://neighbor-space.org/eat-to-live-incubator-farm/
- Farm Beginnings: https://www.grownyc.org/farmerassistance/beginnings
- Farm Business Development Center: https://libertyprairie.org/programs/farmer-training/
- Farm Foundations Incubator: https://piercecd.org/276/Farm-Foundations
- Farmer-in-Training Program: https://www.carolinafarmstewards.org/farmer-in-training-program/
- FLC Incubator Program: https://www.fortlewis.edu/about-flc/initiatives/the-old-fort/farmer-training/incubator-program
- Food to Bank On Program: https://www.cloudmountainfarmcenter.org/food-to-bank-on-program
- Free Mulch Farm Incubator: https://frogsongorganics.com/news-from-the-farm/free-mulch/
- GoFarm Incubator: https://www.gofarm.org/gofarmincubator

- Groundswell Incubator Farm: https://groundswellcenter.org/the-incubator-farm/
- Headwaters Incubator Program: https://emswcd.org/farm-incubator/headwaters-farm/
- Hilltop Urban Farm: https://www.hilltopurbanfarm.org/farmer-incubation-program
- Intervale Center Farms Program: https://www.intervale.org/programs#farms-incubation
- La Cocina: https://lacocinasf.org/mission
- MSU Farm Business Incubator Program: https://www.canr.msu.edu/uprc/farm-business-incubator
- Nettle Valley Farm: https://www.nettlevalleyfarm.com/incubator-farm
- New Entry Incubator Farm Training Program: https://nesfp.org/farmer-training/incubator-farm
- Northampton Community Farm: https://www.growfoodnorthampton.org/farm/
- Northeast Beginning Farmers Project: https://nebeginningfarmers.org/online-courses/
- PFC's Incubator Farm Program: https://providencefarmcollective.org/programs/
- Prairie Pines Incubator Farm: https://communitycrops.org/prairie-pines/
- Pushing the Envelope Farm: https://pushingtheenvelopefarm.org/for-farmers
- Rogue Farm Corps: https://www.roguefarmcorps.org/
- SAHC's Farmer Incubator Program: https://appalachian.org/sahc-community-farm/farm-incubator-program/livestock/
- Sandill Incubator Farm: https://www.clemson.edu/cafls/research/sandhill/programs/incubator_farm.html
- Seed Incubator: https://www.farmerincubator.org/seed-incubator
- Sinsinawa Mound Collaborative Farm: https://www.sinsinawa.org/farm/

- Small Farms Cornell University: https://smallfarms.cornell.edu/
- Southern Oregon University Small Farms Program: https://smallfarms.oregonstate.edu/smallfarms/projects/beginning-farmers
- Southside Community Land Trust: https://www.southsideclt.org/farmer-training-and-apprenticeships/
- Springfield Community Gardens: https://www.springfieldcommunitygardens.org/farm-incubator
- Sprouting Farms Incubator Program: https://www.sproutingfarms.org/programs.html
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- The Farmer Education Course (PEPA): https://albafarmers.org/our-work/#incubator
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- UVM Farmer Training Program: https://learn.uvm.edu/program/farmer-training/
- Viva Farms Farm Business Incubator: https://vivafarms.org/farm-business-incubator/
- Women-In-Agriculture (WIA) Farm Development Center: https://www.miffs.org/wia
- YARA Incubator Farms: https://www.yara.us/crop-nutrition/incubator-farms/
- Young Farmers Coalition: https://www.youngfarmers.org/business-services/

Appendix D

Comparative case study IFP general information.

Program Title	Host Org.	Location	Years in Operation	Acres	Plot Size (acres/ person)
Headwaters Incubator Farm	East Multnomah Soil & Water Conservation District	Gresham, OR	10 years	60 acres	1/4 - 1/2 acre
Groundswell Incubator Farm	Groundswell Center for Local Food & Farming	Ithaca, NY	10 years	10 acres	1/4 acre and up
Viva Farm Business Incubator	Viva Farms	Skagit County and King County, WA	14 years	119 acres	between 1/4 and 10 acres
ALBA Organic Farm Incubator	Agriculture & Land-Based Training Association (ALBA)	Salinas, CA	21 years	100 acres	1/2 acre to start, afterwards up to 5 acres
New Entry Incubator Farm Training Program	Tufts University New Entry Sustainable Farming Project	Beverly, MA	24 years	12 acres	1/4 - 1/2 acre
Prairie Pines Incubator Farm	Community CROPS	Lincoln, NE	10 years	145 acre	1/8 to 1/2 acre

Appendix E

Comparative case study IFP farm and land management practices.

Program Title	Practices / Specializations
Headwaters Incubator Farm	organic practices, integrated pest management, spring tillage, cover cropping, crop rotation, soil testing, nutrient management
Groundswell Incubator Farm	integrated crop-livestock, Southeast Asian vegetables, Mainline irrigation, soil fertility methods, cover cropping
Viva Farm Business Incubator	organic practices, cover cropping, crop rotations, drip tape system, insectary flower strips, hedgerows, compost
ALBA Organic Farm Incubator	organic practices, food safety, cover cropping, crop rotations, insectary flower strips, hedgerows
New Entry Incubator Farm Training Program	organic practices, food safety, soil testing, compost, cover cropping, crop rotations, nutrient management
Prairie Pines Incubator Farm	organic practices, native species, soil testing, crop rotations, sustainable vegetable production

Appendix F

Participant support of the six IFPs in our collective case study

Program Title	Target Groups	Housing Offered Y/N	Mentorship Y/N	Technical Assistance Y/N
Headwaters Incubator Farm	Farmers from diverse backgrounds and traditionally underserved communities	N	Y	Y
Groundswell Incubator Farm	People of color, immigrants, refugees and women who often experience significant systemic barriers	N	Y	Y
Viva Farm Business Incubator	beginners and experienced farmers; bilingual farmers	N	Y	Y

Program Title	Target Groups	Housing Offered Y/N	Mentorship Y/N	Technical Assistance Y/N
ALBA Organic Farm Incubator	Low-income farm workers	N	Y	Y
New Entry Incubator Farm Training Program	New and beginning farmers	N	Y	Y
Prairie Pines Incubator Farm	Beginning, immigrant and limited-resource farmers	N	Y	Y

Appendix G

Operational support of the six IFPs in our collective case study

Program Title	Funding Sources
Headwaters Incubator Farm	• Fully funded through local property taxes
Groundswell Incubator Farm	• USDA Beginner Farmer Rancher (BFRDP) Program • Other
Viva Farm Business Incubator	• USDA Beginner Farmer Rancher (BFRDP) Program • Other
ALBA Organic Farm Incubator	• USDA Beginner Farmer and Rancher (BFRDP) Program
New Entry Incubator Farm Training Program	• USDA Beginner Farmer Rancher (BFRDP) Program • Other federal grants • Massachusetts Department of Agricultural Resources (MDAR) • Private foundation grants • Contributions
Prairie Pines Incubator Farm	• University of Nebraska • Sustainable Agriculture Research and Education (SARE) • Crowdfunding • Private donors