

[JGR: Atmospheres]

Supporting Information for

[Evaluating Cropland N₂O Emissions and Fertilizer Plant Greenhouse Gas Emissions with Airborne Observations]

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Contents of this file

Figures S1 to S5.

Introduction

Figure S1: The complete a-posteriori flux field for the 3 receptors shown in Figure 5 of the main manuscript. Figures S2–S5: relationship between N₂O fluxes from mass balance calculations and fertilizer, soil moisture, soil temperature, and crop type from mass balance regions.

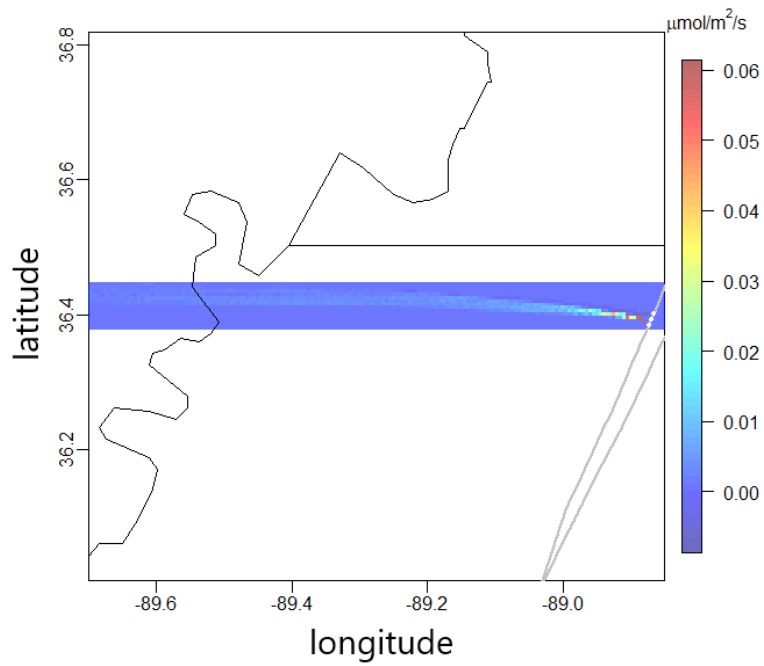


Figure S1. Complete a-posteriori flux field for the 3 receptor points (white points) seen in Figure 5 of the main text, along with flight path (grey line) and state boundaries.

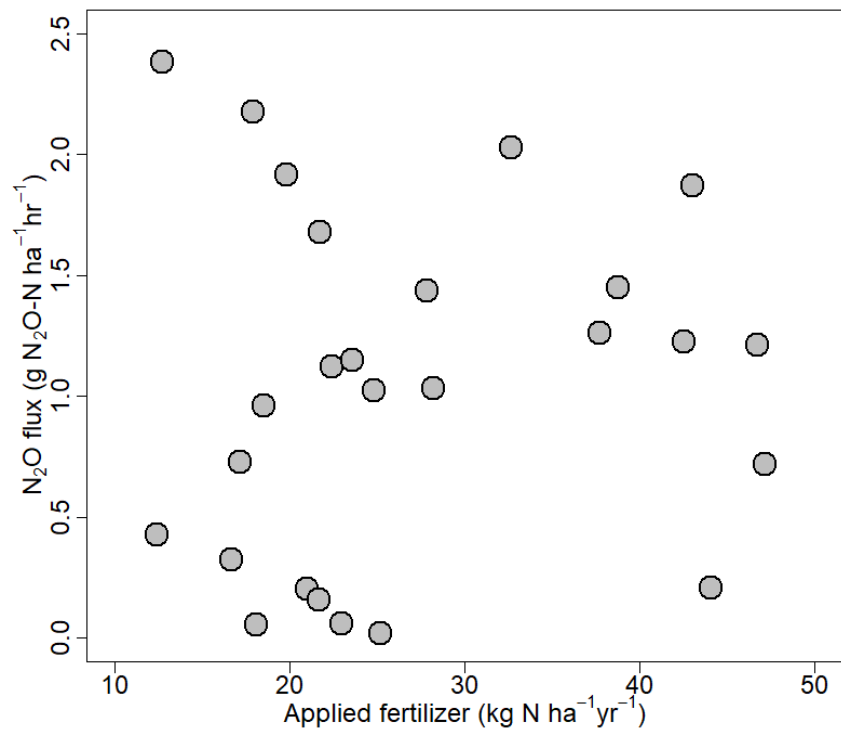


Figure S2. N₂O flux versus applied fertilizer from Cao et al. (2017).

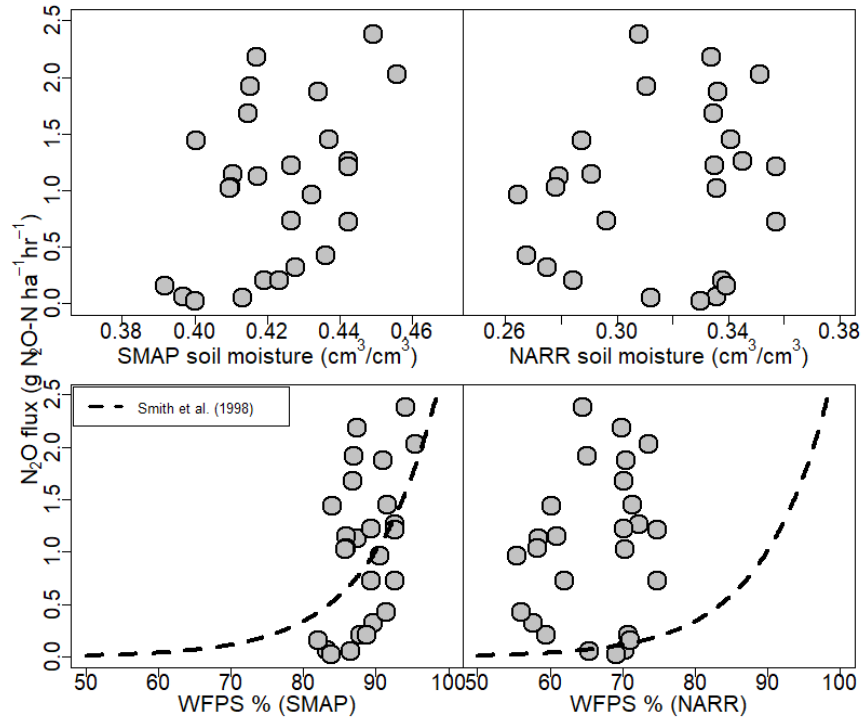


Figure S3. N_2O flux versus soil moisture from SMAP and NARR and WFPS calculated using the two soil moisture datasets.

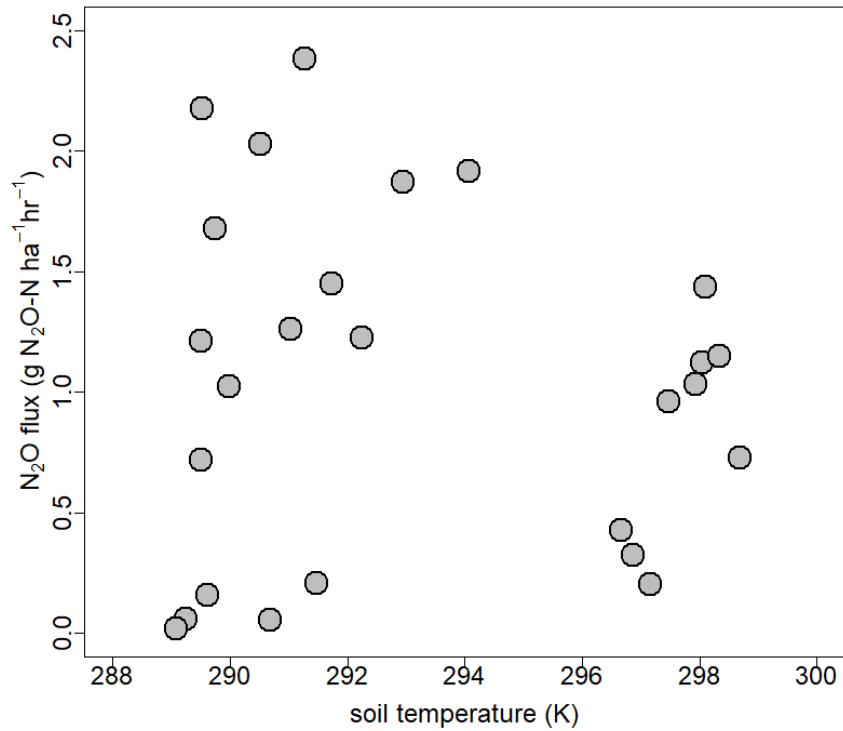


Figure S4. N_2O flux versus soil moisture from NARR.

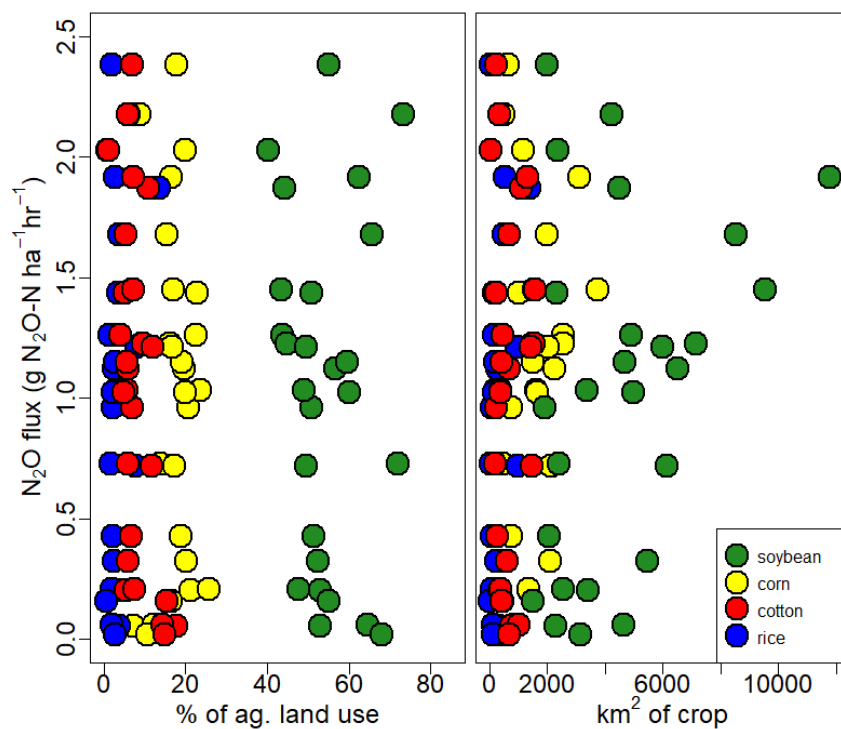


Figure S5. N₂O flux versus crops from CropScape. On the left, for each region we calculate what percent of agricultural land is occupied by the respective crop. On the right, for each region we calculate the total area occupied by the respective crop.