

# BIOAg Project Report

## Report Type:

Progress

## Title:

Who is applying? Understanding the motivations and challenges of participants in incentive programs for compost application

## Principal Investigator(s) and Cooperator(s):

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## Abstract:

Policymakers are increasingly prioritizing soil health and organic waste reduction for climate change mitigation and adaptation, leading to incentive programs like the WSDA Compost Reimbursement Program (CRP), established in 2023. While funding for the WSDA CRP ended after the first two years, to maximize the effectiveness of similar programs, it is essential to understand who does and does not participate in these programs. This is especially important given that an evaluation of a similar incentive program in California revealed significant social inequities. This study aims to address this gap by (1) evaluating the demographics and farm characteristics of CRP participants and non-participants using anonymized WSDA data, interviews, and surveys, (2) identifying barriers and motivations for compost application, and (3) identifying barriers and motivations for incentive program participation. Work on this project to date includes a preliminary analysis of the metadata from WSDA CRP participants and the development of interview questions and recruitment materials for submission to the WSU Institutional Review Board.

## Project Description:

Benefits to soil health provided by compost application are well-studied, yet agricultural producers have been slow to adopt compost use, due in part to high purchase, transport, and application costs. The WSDA Compost Reimbursement Program (CRP) helps farmers to overcome this barrier by reimbursing up to 50% of costs associated with purchasing, transport, and application of compost. A recent evaluation of a similar U.S. program, the California Healthy Soils Program (HSP), found that the average farm size, the number of employees, and the proportion of owned acres for HSP participants were all double or triple the state average, which suggests that the program is better adapted to reach some producers than others. Thus, the goal of this project is to better understand who is participating in the WSDA CRP and other incentive programs, who isn't participating, and the decision-making process behind these choices. Ultimately, this work will inform recommendations for the design of incentive programs to ensure equity and broader adoption.

## Outputs:

### Overview of Work Completed and in Progress:

An initial analysis of the FY 2024 WSDA CRP program metadata was conducted, and as the FY 2025 WSDA CRP program metadata was recently received, analysis of that data is ongoing. Unlike the Healthy Soils Program in California, where the average size of participating farms, was double or triple the state average, 37% of all compost applications for FY 2024 were to an acre or less. Unfortunately, farm size data was not collected for FY 2024 (it is available for FY 2025), but we assume that larger farms would

likely apply to the maximum acreage reimbursable if they were going to participate in the program and thus view the acreage to which compost was applied as a reasonable proxy for farm size.

With the start of an MS student on this project in August 2025, intensive work began to develop interview questions for the first stage of this project. After several rounds of iteration and the development of the recruitment materials, all materials are currently being translated into Spanish prior to submission to the WSU Institutional Review Board by the end of the calendar year. Interviews will take place in January through March, depending on the timing of WSU Institutional Review Board (IRB) approval or a determination of exemption. Responses to these interview questions will be analyzed in the summer of 2026 and used to develop targeted questions for a broader survey.

### **Methods, Results, and Discussion (discussion for final reports only):**

The project team will first utilize existing WSDA CRP participant metadata to understand the geographical representation, the crops represented, and the farm size distribution (the latter is only available for FY 2025, so the acreage to which compost was applied will also be analyzed for FY 2024 and 2025). The metadata collection was designed to facilitate program logistics and document program impact, and as such, there is limited ability to understand participant demographics and motivations based on this metadata alone. As a next step, WSDA will contact past CRP participants to notify them of the study and solicit their voluntary participation in a semi-structured interview. From those willing, WSU will identify 15-20 diverse interviewees to ensure that the broadest range of perspectives is represented, provided that the number of willing CRP participants exceeds the target number of interviews. Prior to contact, the project will have applied for and received an exempt status from the WSU IRB. Interview questions will be used to understand barriers to compost application without CRP participation, barriers to CRP participation, and the factors that positively influenced their decision to participate, in addition to guiding the development of survey questions to facilitate a broader reach. Interviewees will also be asked to identify non-participants who might be willing to be interviewed, as preliminary interactions with some CRP participants suggest that they may share social connections and groups with non-participants. Non-participants will also be contacted through targeted outreach that does not depend on social connections with CRP participants (e.g., through commodity commissions, winter grower meetings, etc.), with the aim to interview an equivalent number (15-20) of non-participants. The WSU project team will provide interviewees with a small non-monetary gift (< \$50 value) to incentivize their participation.

Interviews will be recorded and transcribed using a reputable AI-assisted transcription service (e.g., Rev.com). Data on interviewee demographics, farm characteristics, and other salient attributes will also be collected, including age, gender, race and ethnicity, years of farming experience, the highest level of education obtained, farm size, the proportion of leased and owned land, the number of farm employees, prior applications to incentive programs, and the number of interactions with technical service providers in the last three years. Interviews will be conducted outside of the peak growing season during the end of the first year of the project and the beginning of the second year. Interview data will be analyzed for key themes using NVivo qualitative data analysis software.

The coded interviews will be used to program an open-access online survey, which will be used to reach a broader spectrum of CRP participants and non-participants. The survey will be sent to CRP participants by the WSDA as a voluntary opportunity, beginning in the summer of the second project year, and following a determination of exempt status for the survey by the IRB. Non-participants will be contacted through diverse avenues (e.g., commodity commissions, input suppliers, conservation districts, etc.) to help avoid biasing the sample toward those already connected with technical service providers. To avoid double-counting, CRP participants and non-participants who were interviewed by the project team will be screened out of the survey in the first question (the upcoming survey will also be mentioned to

interviewees, who will be asked not to participate). Given the expectation that survey response rates for CRP participants may be higher than those for non-participants, demographic data and farm characteristics for CRP participants and non-participants will also be compared to statewide data based on the USDA National Agricultural Statistics Service 2022 Census of Agriculture. Findings from the interviews and surveys of CRP participants and non-participants will be synthesized into a final report, a blog post, and an academic journal article.

**Publications, Handouts, Other Text & Web Products:**

None to date

**Outreach & Education Activities:**

None to date (pending WSU Institutional Review Board approval or exemption determination)

**Impacts:**

**Short-Term:**

None to date

**Intermediate-Term:**

None to date

**Long-Term:**

None to date

**Additional Funding Applied for/Secured:**

None to date

**Graduate Students Funded:**

Molly Monahan, MS student, Department of Crop and Soil Sciences

**Recommendations for Future Research:**

Recommendations are pending additional data collection given the stage of the project.