

Ospud: Farmer Participatory Research

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John McQueen, and 24 farmer collaborators*

Project ID: SW05-091 Title: Integrated Soil and Crop Management for Organic Potato Production



*This poster highlights Ospud's participatory process and impacts.
A companion poster highlights Ospud technical outputs.*

Objectives

- 1) Pilot a participatory approach to learning and adaptation of novel farming systems strategies
- 2) Evaluate nutrient (N) and pest management (flea beetle, wireworm, late blight) strategies
- 3) Extend project findings to a larger audience of farmers

Methods

The project team included researchers, farmers and extension personnel.

Farmers were involved in all decision-making aspects of the project. Meeting facilitation was shared by all participants, and an open forum atmosphere encouraged information exchange. Throughout the project, farmers contributed information about how they grew potatoes, from varieties to hilling to enterprise budgets.

During winter meetings, the project team collaboratively 1) identified and prioritized the issues reducing potato production sustainability, 2) identified and discussed any known solutions, 3) generated hypotheses to be tested during the first growing season in on-farm trials, 4) identified who would participate in on-farm trials, and 5) developed the annual budget.

During the two production seasons, on-farm and research station trials evaluated pest and nutrient management strategies.

During the second and final year winter meetings, the season's field data were shared and discussed.

Farm Collaborators

Gathering Together Farm	Foundhorn Gardens
Persephone Farm	Sauvie Island Organics
Fields Farm	Ralph's Greenhouse
Fry Family Farm	Wintergreen Farm
Blue Fox Farm	47th Avenue Farm
Springhill Farm	

Outcomes

At the project end, a detailed evaluation was sent to farmers asking them about 1) their experiences as project participants, 2) the impact of the project on their knowledge of potato production and 3) how the project changed their potato production practices.

Half of the farmer collaborators had participated on a research project with the university and half had collaborated with other farmers in the past. Participants noted that Ospud differed from these other projects in several ways: (1) more knowledge gained, (2) more collaborative, (3) less responsibility on the growers, (4) broader in scope, (5) longer period of time, (6) wide variety of university resources, (7) more in depth, (8) more solid research, and (9) better organized and planned.

Farmers described their role in Ospud as a collaborator by providing directions, information and feedback to university researchers and fellow farmers as well as a facilitator and active member at planning meetings.

100% of farmer collaborators indicated that they agreed with the following statements:

- They would conduct an on-farm experiment with assistance from OSU.
- They would encourage another grower to participate in a project with OSU.
- Being part of the Ospud project made them a better manager of their potato crop.
- Interacting with other farmers helped them better understand their farm.
- An important factor in the success of Ospud was bringing together farmer-derived and science-derived information.
- Science-based information is essential to improving organic systems.
- Interacting with researchers helped them better understand their farm.

When asked about their increase in knowledge directly resulting from this project, these practices surfaced as the **Top 13 positive changes**:

1. Ability to diagnose late blight in the field
2. Management of late blight through irrigation management
3. Adjusting within- and between-row spacing based on seed size & type (cut or whole)
4. Storing seed at temperatures favoring rapid emergence
5. Warming seed before cutting
6. Adjusting pre-plant application rates of broiler litter or high-N specialty products (seed meals, blood meal, fish fertilizer etc) to reflect their soil N mineralization potential & crop need
7. Accurately diagnosing flea beetle damage
8. Monitoring flea beetle damage in tubers
9. Adjusting rotation to reduce flea beetle populations
10. Using cultural methods to manage flea beetle populations
11. Accurately diagnosing wireworm damage on potato tubers
12. Monitoring tuber wireworm damage
13. Adapting rotation to reduce wireworm populations

Farmers overwhelmingly responded that the most valuable aspects of Ospud were (1) the relationship building with other growers and researchers, (2) the interaction and collaboration with university specialists, and (3) the broad, multi-discipline approach & detail on a single crop.

Outreach

Project Website: www.ospod.org

eOrganic project workspace: eOrganic.info, Ospud Group

October 2006. Potato evaluation and tasting held at an Ospud farm in collaboration with the OSU potato breeding program. Fifty organic farmers, retailers, chefs, processors, and researchers drafted organic potato germplasm selection criteria and evaluated 25 potato cones for appearance, flavor, and texture.

January 2008. Oregon Tilth 2008 Annual Conference: a potato variety tasting and an Ospud farmer panel presentation

January 2008. North Willamette Horticulture Society Meeting.

February 2008. The 8th Annual Small Farms and Farm Direct Marketing Conference: Ospud farmer presentation

November 2008. Washington Tilth: Ospud farmer presentation

Publications

Ambrosino, M. 2008. Flea Beetle Management for Organic Potatoes.

Oregon State University, EM 8747-E.

McQueen, J.P.G. 2007. Estimating the dry matter production, nitrogen requirements, and yield of organic farm-grown potatoes. M.S. Thesis. Oregon State University, Corvallis, OR. Available at: http://ir.library.oregonstate.edu/dspace/bitstream/1957/6245/1/mcqueen_MSthesis.pdf.

Selman, L., N. Andrews, A. Stone, and A. Mosley. 2008. What's Wrong with my Potato Tubers? Oregon State University, EM 8948-E.

Stone, A., 2009. Organic management of late blight of potato and tomato (*Phytophthora infestans*). eOrganic. www.eXtension.org

Stone, A. et al, 2009. Organic management of late blight of potato with copper products. eOrganic. www.eXtension.org

Sullivan, D.M., J.P.G. McQueen and D.A. Horneck. 2008. Estimating Nitrogen Mineralization in Organic Potato Production. Oregon State University, EM 8949-E.