

Title: Agroecology of Urban Food Farming: Engaging scientists, producers and educators in collaborative BIOAg research planning

Principal Investigators

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Abstract

The purpose of the Agroecology of Urban Food Farming planning grant is to engage scientists, producers, and educators in collaborative research project development. The work conducted under this planning phase includes (a) assessing research needs to build partnerships with participants; (b) developing specific hypotheses relevant to local producers; and (c) applying for grants to implement research. The research is aimed at analyzing the effectiveness of organic and biologically intensive (BIOAg) practices on soil quality and socio-economic resilience in the context of urban area agriculture. Based on participatory experiences and our refined hypotheses, we continue to pursue external funding to implement research.

Project Description

The planning grant for the Agroecology of Urban Food Farming project, awarded in August, 2012, covers the following general categories of work:

- a) Research project scoping involves building partnerships and assessing needs through networking, participating in a variety of venues, and reviewing existing information.
- b) Research planning includes refining research questions and developing hypotheses.
- c) Fund development comprises preparing and submitting grant proposals for urban food farming research, and supporting other food system proposals.

Outputs

Work Completed

Activities and findings are summarized below.

- a) Scoping work involved consulting with advisors and cooperators, attending Food System Council meetings, monitoring related initiatives and literature, and meeting with potential producer participants at local markets, farm events, and conferences.

The Clark County food system assessment recommends ongoing support for education, mentoring, and marketing—and noted the need for better information about farms to support farmland protection (Gilroy, 2008). The Soil Quality Network 2013 conference offered field demonstrations on Visual Soil Assessment (Shepherd, 2009) for a local farm, a method we plan to adapt for our research. The 2013 Women in Agriculture conference led to the formation of a local farmer network in which we will participate. We have identified more than 25 potential farmer research participants.

We will adopt the following broad definition of urban agriculture (UA): “urban agriculture refers to growing and raising food crops and animals in an urban setting for the purpose of feeding local populations...[including] community gardens, commercial gardens, community supported agriculture, farmers’ markets, personal gardens, and urban farms” (after Goldstein et.al., 2011). For our inclusive purposes, UA includes “urban and peri-urban agriculture” often identified as “UPA” (van Veenhuizen & Danso, 2007). In the Clark County context, urban, peri-urban, suburban, and more rural agriculture are not easily differentiated.

- b) Meeting with potential partners and farmer-participants informs our research questions, and led us to define our focus on urban and near-urban commercial farms marketing food locally.

Information about growing practices for gardeners and farmers is available and accessible, through voluntary, agency, and Extension services.¹ Abundant technical resources address production, marketing, and environmental issues. However, we don’t know how effective the technical assistance is toward BIOAG goals of “furthering the use of effective biologically-intensive or organic strategies on all types of farms...to improve sustainability” of farm or food systems. When and where such information about practices is actually applied by growers, we don’t know how effective the practices are toward goals such as crop production and soil stewardship. Therefore, we plan to address the need for research regarding the application of the technical information by the farmers and the outcomes for the farms.

- c) Work involved grant research, networking, and proposal development.

Our co-designed participatory farm-level research project was awarded first year funding. We pursued support for a WSU food system network and food policy council research, unsuccessfully. Upon invitations, we also discussed several initiatives with potential collaborators involved in local gleaning, a year-round farmers market, food hub development, and investigating soil health in community gardens.

Impacts

Short-term impacts (knowledge gained and shared) include the compilation of information about food producers and the food system. Documenting the contributions of farms to the local and regional food system could inform land use planning and investment decisions. Research on urban and peri-urban (UPA) farms could help make the case for protecting farmland.

By focusing on producers, intermediate-term impacts (current and expected change in behaviors) could include more favorable marketing in support of local agriculture. A year-round farmers’ market in Vancouver also aims to improve food literacy and food security.

Food security is an overarching long-term impact (potential change in economic/ environmental/ social situations) of more resilient local farms. Diversification of local markets and crops, and information sharing, are behaviors indicative of a more resilient agri-food system (Cabell & Oelofse, 2012).

Additional Funding Applied for / Secured

Grant update:

1. The "Agroecological Assessment of Farming in the Rural-Urban Interface: Building Resilience in Regional Food Systems" application was awarded first year funding.
2. The "Enhancing the Understanding and Effectiveness of Alternative Food Systems Initiatives in Washington through forming Participatory Research and Education Partnerships" proposal was denied funding.

Specific Applications Planned

1. Risk Management Education Partnerships Program proposal, due September, 2014.
2. Western Sustainable Agriculture Research and Education (SARE) proposal, due May-June 2014.

Graduate students funded

Judith Wait, Environmental Science Ph.D. student.

Recommendations for future research

Recommendations for future research reflect planning project findings and motivations.

Future research is needed to address food production in urbanizing regions, an important sector in the context of food systems and localization. In the United States, urban-influenced counties remarkably produce the majority of fruits (91%) and vegetables (78%) according to the 2007 Census of Agriculture (American_Farmland_Trust, 2007). Organic agriculture is growing, stimulated by demand among citizens. Yet research documenting organic-related agricultural practices is not keeping up with the industry's growth (Sooby, 2003), let alone research in the UA context. In the process of identifying urban agriculture initiatives in the Vancouver-Portland region, we also discovered surveys focused on urban agriculture organizations, community garden coordination, and food policy.ⁱⁱ Such national scale research projects address some broad contextual aspects of the local food system work.

We are choosing to focus on the small commercial food farms engaged in direct marketing through venues such as Farmers' Markets and Community Supported Agriculture (CSA). Our motivations include the multiple roles these farms play in the local food system and the need for research and evaluation of their agronomic, socio-economic, and environmental sustainability. These farms are vital components of the local food system, and receive citizen and agency support. The retention of agricultural production capacity and farmland is a primary goal of the local Food System Council.

Our research is consistent with food system resilience and sustainable agriculture goals of WSU's BIOAg program, as well as WSU Extension strategic goals of improving community livelihoods and food security. Our focus on small commercial direct-market farms is more likely to garner agriculture-related research funding. For example, other projects pertinent to our research context include grower surveys for the Willamette "foodshed" funded by Western SARE (Cogan, Owens, & Cogan, 2011), and agricultural trends affecting small-scale farming in Washington State (Ostrom & Donovan, 2013).

An overall goal of researching the effectiveness of agricultural (soil management) practices is to enhance the environmental and socio-economic (sustainability) benefits of food production initiatives, such as improved food security and (soil) ecosystem health. Presumably, having access to applicable agricultural knowledge, and using such information to inform decisions about practices, will lead farmers to use practices which are effective in meeting production, social, and environmental goals.

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ⁱ WSU Clark County Extension (<http://clark.wsu.edu/>)

ⁱⁱ UA Surveys include:

McClintock et al, 2013. Portland State University. Survey of Urban Agriculture Businesses and Organizations in the US and Canada: designed to increase the “understanding of the diversity of motivations and experiences of practitioners will help city officials to design urban agriculture policy...”

Oberholtzer et al, 2013. Penn State and New York Universities. Nationwide Survey of Urban and Peri-Urban Farms: designed to “examine the state of urban farming in the United States and gather information about the characteristics, opportunities, and risks...”