

Crop diversification opportunities to enhance the viability of small farms

Statement of Issues and Justification

Agricultural production is a vital part of the economy of Kentucky and surrounding states. The growth of the local foods movement — in a context of increasing environmental constraints on large production systems — offers farmers with small acreages an opportunity to improve their farms' viability. They can accomplish this through diversification, but only if they have the production and marketing expertise required to grow and sell crops profitably. The states participating in this project¹ are home to 358,757 small farms that encompass 179 or fewer acres (Census of Agriculture, 2012). Increasing development of direct marketing channels, including dramatic growth in the number of farmers markets and growth of farm to school programs in the region, provides small farmers new opportunities to market their products. Meanwhile, high tunnel production has been increasing because it offers farmers an opportunity to extend the growing season, enabling them to sell fresh produce earlier and after the growing season ends, when their crops demand higher prices. The Seasonal High Tunnel Initiative within the USDA-NRCS Environmental Quality Incentives Program (EQIP) offers financial assistance to agricultural producers interested in pursuing high tunnel crop production and has encouraged adoption of this technology. The program began in Kentucky in 2012, and more than 500 high tunnels have either been built or are planned for implementation

(http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ky/newsroom/releases/?cid=nrcs142p2_009534). The situation is similar in other states; since 2012, 1,645 high tunnels have been built or are planned through EQIP in Illinois, Indiana, Iowa, Georgia, Ohio, Tennessee, and West Virginia (personal communication, June 18-23, 2015). Stakeholders for crop diversification information include farmers interested in both field and high tunnel production of horticulture crops; Extension agents, specialists, and associates; NRCS professionals; FFA instructors; and others who advise producers. The Center for Crop Diversification at the University of Kentucky conducted a survey in June of 2014 to assess crop diversification needs in the region. The survey was sent to more than 400 county, regional, Extension, and state department of agriculture professionals in Kentucky, Illinois, Indiana, Ohio, Tennessee, and West Virginia who help producers with questions about specialty crops. This project will conduct assessments of resources and resource needs on a regular basis with a view toward Extension, education, and publications/products related to crop diversification.

Objectives

1. Develop research-based production information about crops and systems that have potential to be profitable for small farms. These include a) protected agriculture (high and low tunnels, greenhouse production of lettuce and other specialty crops), b) organic production systems, and c) small-scale production systems.
2. Coordinate research and Extension activities among participants, including a) development and presentation of trainings, including webinars, on crop diversification topics, b) development of print publications that will be made available electronically on the

¹ Georgia, Illinois, Indiana, Iowa, Kentucky, Ohio, Tennessee, and West Virginia.

production and marketing of specialty crops in the participating states, and c) development of videos illustrating production practices and marketing options for specialty crops. Webinars, videos, and print publications will be disseminated via the University of Kentucky's Center for Crop Diversification website (<http://www.uky.edu/ag/CCD/>), as well as through the Center's newsletters and social media outlets. Research results and Extension products will also be disseminated via field days and meetings in participating states.

3. Expand the activities of the Center for Crop Diversification to include price reports (farmers markets, produce auctions, farm to school, and retail) from the participating states, in order to centralize resources that growers throughout the region can use to determine how to set prices for their products.
4. Conduct market research in the participating states on consumer preferences and marketing channels that are most effective and profitable for small farms.

Procedures and Activities

Objective 1: Participants will conduct applied research on production systems, such as protected agriculture (high and low tunnels, greenhouse production) and organic production that are represented in the participating states. Identification of appropriate crop varieties is recognized as a key area for research, but we expect other topics to be identified and addressed as the project unfolds. Collaborators on this project will share yield data from their respective research projects among the group. Participants plan an activity to identify standard protocols for data collection and variety trials. Participants plan to include small-scale production research to meet the needs of small farms in the region.

Objective 2: Participants will collaborate on trainings, including webinars, on high tunnel production, organic production, and beginning farming opportunities. They will work together to develop a registry of growers throughout the participating states who are willing to share how they assess labor needs, do record keeping, etc. Participants will collaborate on development of print publications that will be made available electronically on the production and marketing of specialty crops, including modification of existing publications that are state-centric to include caveats to address production and marketing issues specific to each participating state. They will collaborate on the development of a print publication to deal with new enterprise startups. Questions this publication will address include: What crops should I grow? How do I make those crops profitable? Sustainable? How do I determine the combination of crops that will work best? What is the profitability of each crop? Where do I market these crops? How do I engage those markets? Participants will develop videos that include a mentoring component and feature farmers as speakers. Webinars, videos, and print publications will be disseminated via the Center for Crop Diversification website, as well as through the Center's newsletters and social media outlets. Research results and Extension products will also be disseminated via field days and meetings in participating states. All products will include credits for all contributors and the institutions they represent.

Objective 3: The Center for Crop Diversification has begun the process of expanding its price reports by working with faculty and Extension personnel to add farmers market price reports from Tennessee, and farmers market and produce auction price reports from Illinois. The Center will work with participants from other states involved in this project to further expand

farmers market price reporting. The group will seek funding to develop an app to expedite expanded reporting. The Center will coordinate addition of produce auction, farm to school, and retail price reports from the participating states.

Objective 4: Agricultural economists in the participating states will develop surveys to determine consumer preferences and marketing channels that are most effective and profitable for small farms in the region. The project will include development of a regional produce planting intentions survey, and development of a report on the economic impact of specialty crop production across the region.

Expected Outcomes and Impacts

- Facilitated coordination of research and Extension activities in regard to crop diversification throughout the participating states.
- An inventory of the resources currently available within the group, including applied research on crops and production systems, as well as marketing research. The inventory and a searchable contact list of project participants who have expertise with various crops will be collated on the Center for Crop Diversification website.
- Production research focused on the new crops and production systems will permit development of recommendations for management practices that lead to profitable production of high quality produce in an environmentally sound manner. Results of marketing research will aid farmers in determining the most appropriate channels for selling their products.
- This activity will allow for exchange of ideas and information among researchers and Extension personnel in the participating states, and will result in publication of journal articles and fact sheets based on production and marketing research.
- Development of webinars and videos to help farmers throughout the region diversify their operations.
- This activity is expected to result in increasing incomes among small farmers in the region, fulfilling the needs of consumers seeking to increase their purchases of local foods. In the longer term, we expect the region's capacity for producing and marketing produce to increase, thereby reducing reliance on a few areas of concentrated production.
- Price information gathered from farmers markets, produce auctions, farm to school programs, and food retailers will help farmers determine how to price their products.
- Expanded price reporting resulting from this project will help fulfill the need for direct market prices for the Noninsured Crop Disaster Assistance Program (NAP).
- A regional produce planting intentions survey, which will allow for documentation of how production and marketing of produce is changing in the region.

Educational Plan

Farmers and Extension personnel in the participating states will be informed of the activities of this project via a website, which will be built around the online resources of the Center for Crop Diversification at the University of Kentucky; through webinars, both live and archived, on topics related to the production and marketing research that this project encompasses; through videos featuring farmers who have successfully diversified their operations; and through fact sheets, which will be disseminated at field days and meetings in the participating states. Webinars will be promoted to county Extension offices in all states to allow farmers

who do not have high-speed Internet access to participate. To increase access by underserved communities, project participants will disseminate information at field days and meetings at 1890 Land Grant universities in the region. Educational sessions will also be offered at produce auctions in the region to address the needs of Amish and Mennonite growers.

Organization/Governance

A chairman and vice chairman for the proposed group will be selected on an annual basis. The group will have a formal meeting annually to be held at a mutually agreed upon time and location. Additional meetings, face-to-face or virtual, may be held on an as-needed basis to facilitate collaborative research and Extension activities of the group.

Literature Cited

U.S. Department of Agriculture. Census of Agriculture, 2012 Census Volume 1, Chapter 2: State Level Data

http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_US_State_Level/st99_2_001_001.pdf

U.S. Department of Agriculture. Natural Resources Conservation Service, Kentucky Environmental Quality Incentives Program

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ky/newsroom/releases/?cid=nrcs142p2_009534.