



ORGANIC AGRICULTURE RESEARCH SYMPOSIUM

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Social Science and Economics Report



ORGANIC FARMING
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Introduction

Producers that adopt organic farming practices frequently cite economic and social conditions for their decision. Favorable policies, such as investments in organic farming research, organic handling infrastructure development, and organic farmer education can encourage the expansion of organic farming, while unfavorable policies favoring or even subsidizing techniques prohibited in organic production can discourage the adoption of organic farming practices. For example, policies that discourage transition IMO are mainly subsidies for GMO crops and the structuring of commodity programs based on monocultures. The market driven growth of organic agriculture is a relatively recent phenomenon when compared with its longer history as a social movement. The transition of organic agricultural practices and its distribution on the American landscape was the subject of three different presentations at OARS. While sales of organic food and non-food products have grown in the US, domestic acreage and production have not kept up with consumer demand. With the US importing more organic food than it is exporting, the organic sector wants to know which farmers are transitioning to organic product and why. Also relevant to the economic success of organic farming is the access to growing markets for novel crops and livestock products. Raw milk and industrial hemp were presented as two examples of potential markets that are of interest to organic farmers.

Parallels in the Raw Milk and Organic Agriculture Movements

Joseph Heckman

The goal of the presentation was to provide historical context of the similarities between the organic agriculture movement and the movement to make raw milk available to the public. Heckman made the case that raw milk today is at a place comparable to where organic farming was 20 years ago. Organic farmers interested in producing raw milk would benefit by understanding that the two have faced similar policies based on how science is used to shape public policy. Organic agriculture and raw milk have emerged as two parallel movements that developed in response to the industrial food system. Joseph Heckman provided the history of the two movements and their common struggles. Both movements faced repeated challenges from government agencies that misrepresented the scientific evidence used to justify policies that were unfavorable to the adoption of their practices. Heckman presented evidence of the misuse of science to justify laws and policies that hurt small farms. Science and education are needed to show how certified organic milk produced on healthy pasture can be sold as safe, fresh, unprocessed milk.

The Nature of Spatial Externalities in the Decision to Adopt Organic Production Systems

Timothy A. Delbridge

The project sought to identify the degree to which having organic neighbors influences the decision to adopt an organic farming system, and to look at the social and technical benefits that established organic farms provide to neighboring farms interested in adopting organic practices. Given that the market is far from saturated, both established and transitioning organic farms benefit by having a strong local network that can share knowledge and infrastructure. The hypothesis was that the presence of other farms nearby that were certified organic provided positive benefits—also known as ‘spillovers’ or ‘externalities’ to the neighboring farms. Certification data from 1996 to 2014, property tax data and the USDA’s Cropland Data Layer (CDL) were analyzed for the proximity of certified organic farms to farms that transition. The clustering of organic farms suggested that proximity provides a small, but significantly positive influence on transition, regardless of enterprise type. However, there was no difference based on the type of operation. The research fits within a better understanding of the social and economic drivers of transition. Future research intends to more deeply analyze land use using CDL data, to replicate the model in other states that have a smaller organic farming communities and specialty vegetable sectors, and follow up to see if the effect is stable over time.

The Changing Geography of U.S. Organic Production

Maria Bowman (presenter), Claudia Hitaj, and Catherine Greene

The goal of the project was to determine the adoption of organic practices on a state and regional basis. The researchers mapped USDA Organic certified operations by zip code and state, and looked at trends from 2007 to 2015. These operations were classified by their USDA Organic certification scope as crop, livestock, and handling. California had the greatest number of certified organic operations. Certified organic operations were densely concentrated in the Northeastern US. The Southeastern US has lagged behind other regions, but there is evidence that the Southeast is growing faster than the national average. While other regions saw a decline in certified organic handlers, the Southeast showed an increase. If the organic sector is to meet the demand in all regions for all crops and products, it is important to understand what states and commodities have been relatively successful, and which are lagging. Future work to understand what is driving the regional growth or decline in the number of certified organic operations include (1) research on regional economic hubs; (2) analysis of regional competitive economies of scale; (3) examination of the relationship between processing and handling infrastructure, farmers markets, and other marketing institutions in the adoption of organic practices; and (4) identification of other possible factors that contribute to transition and retention of organic farms, such as location, products produced, certification agent used, or something previously unidentified.

Motivations and Challenges of Farmer Transition to Organic Farming: United States and Oregon Studies

Garry Stephenson (Presenter), Deanna Loyd, Lauren Gwin (Presenter), Chris Schreiner (Presenter) and Sara Brown

The objective of the study was to have a better understanding of what motivates individual farmers to transition to organic practices. The researchers surveyed organic farmers who participated in the USDA Natural Resource Conservation Service' Environmental Quality Improvement Program's Organic Initiative. The survey data was followed by case studies on 30 Oregon farms that were in the transition process or had completed transitioning. The researchers reported that the most compelling differences between transitioning farms was their certification status: whether they were 100% certified, transitioning, split, or not pursuing organic farming. Farms showed significant differences between those that were motivated by philosophical or ideological reasons and those that were transitioned because of economic conditions or market incentives. These findings are useful in identifying the type of farmers that are more likely to adopt organic methods and enter the organic market. The presenters made several detailed recommendations to advance the understanding of transition. These included (1) pay attention to the needs of transitioning farmers; (2) develop more effective weed and pest management strategies; and (3) study the relationship between yield and successful transition.

Adoption of Industrial Hemp by Organic Farmers in Indiana: An Agronomic and Social Perspective

Leah Sandler (presenter) and Kevin Gibson

The objective of the on-going project is to reduce risk and provide scientific information to farmers interested in growing industrial hemp. The benefit to organic farmers is that hemp is a crop that is competitive against weeds, has few pests, and fits in well in organic farm rotations in many parts of the US. There is also strong demand for organic hemp, and almost all is imported. Ten cultivars of hemp—7 seed and 3 fiber varieties—were cultivated in Indiana on three separate planting dates. The results showed distinct height differences among cultivars, especially between seed and fiber varieties. Emergence increased across planting date, however, this was due to equipment used and depth placement. Fresh weight yield was significantly lower at the third planting date, while there was not a significant difference between the first and second planting dates across cultivars. The results can help organic producers determine if industrial hemp is a viable crop in their rotation. Further research intends to determine suitable cultivars and production techniques; survey farmers and extension agents to identify gaps; and specifically focus on critical period for weed control.

2016 National Organic Research Agenda

Joanna Ory

The objective of the National Organic Research Agenda (NORA) report is to provide comprehensive recommendations for future investment in organic agricultural research. The Organic Farming Research Foundation (OFRF) presented a summary of results and recommendations based on the 2015 survey of organic farmers, nationwide listening sessions with organic farmers, and a review of key documents and recommendations from other organizations. The 2015 Organic Farmer Survey was conducted online and completed by over 1,000 organic farmers. The top recommendations for organic research include more inquiry into the areas of soil health and fertility management, weed management, nutritional benefits of organic food, insect management, and disease management. The project benefits organic farmers by collecting and summarizing their research priorities. The report has more detailed recommendations at both a national and a regional level. NORA is expected to help significantly increase funding for research that assists producers in adopting new practices that enhance the environmental sustainability and economic viability of organic operations.

Conclusion

Organic farmers continue to have economic opportunities because of strong demand and short supply. Transition is not keeping pace with the consumer demand and the challenges and barriers faced by farmers interested in entering the organic market needs to be addressed at the Federal, regional, state, and local level. Research on niche markets and novelty crops offer further incentives to engage in organic practices during the transition period. The importance of research in addressing these barriers requires both a continuing dialog with existing organic farmers as well as outreach to interested non-organic farmers, and a reallocation of research resources to work on both problems and solutions that are faced by organic, sustainable, and transitioning farmers. Both transitioning and established organic farmers identified weed management as a major challenge. Infrastructure investment in handling facilities also was identified in the transitional study and appears to be consistent with the geographical distribution of organic farmers.