Recommendations for Establishing Extension Programming for Organic Farmers

Abstract
As organic agriculture continues to grow, Extension is frequently being called to expand its efforts with organic farmers. However, this non-traditional audience has not historically requested or readily accepted information from Extension and will require Extension to use outreach methods more adapted for this grassroots-based audience. We conducted an extensive literature review of Extension efforts with organic farmers in order to develop recommendations for future Extension programming. The primary strand connecting them is the importance of developing informed Extension efforts by participating in existing organic farmer networks.

Introduction
Over the past few decades, organic agriculture has rapidly expanded, becoming the fastest growing segment of agriculture in the United States. More audiences are calling for Extension to increase its involvement and support for organic agriculture, but many challenges confront us when working with organic farmers (Agunga & Igodan, 2007; Lillard & Lindner, 2011; Middendorf, 2007; Parker & Lillard, 2013; Swisher & Monaghan, 1995).

Many Extension agents and researchers in the U.S. are already developing a rapport with the organic community and have found their own way. In this article we present the results of an extensive literature review of Extension efforts with organic farmers in which we examined the characteristics necessary for successful Extension programs in organic agriculture and established recommendations for future Extension programming with organic farmers.

Recommendations
Based on our extensive literature review on Extension programming with organic farmers, we provide four recommendations to facilitate successful collaborations among Extension agents, researchers, and organic farmers in the United States.
**Begin Where the Farmer Is.**

The diversity and heterogeneity of the organic agricultural industry has increased, with organic farmers varying significantly in size, economic orientation, and ecological values (Constance & Choi, 2010; Darnhofer, Schneeberger, & Freyer, 2005; Jackson-Smith & Buttel, 2003). Initiating collaborations from a farmer's point of interest and understanding will assist in creating appropriate programming.

Several studies have examined organic farmers' information needs and preferences. Weeds are consistently reported as the major constraint in organic production (Sooby, Landeck, & Lipson, 2007; Turner, Davies, Moore, Grundy, & Mead, 2007; Walz, 1999), and the most commonly cited information sources are:

- Other farmers
- Farming conferences

Another factor to consider is farmers' stage of transitioning to organics. Organic farmers at different stages of transition share similar values but face different challenges and require information relevant to their stage of transition (Padel, 2008). New and transitioning farmers will need different skills and more guidance than more experienced organic farmers.

**Work Within Their Networks.**

Padel (2001) emphasizes the grassroots nature of organic agriculture and its need for local "knowledge-networks." These knowledge-networks or communities of practice are one of the best ways to disseminate information about organic agriculture. They provide opportunities for farmers to discuss topics at a level of specificity rarely reached through common educational approaches. Less experienced organic farmers gain from participating in these communities of practice primarily through observation of core members, similar to apprentices, with participation gradually increasing as their knowledge increases (Lave & Wenger, 1991).

Research and Extension professionals would benefit from participating in these networks, but gaining access may be a challenge. Using a "referral selection" process, researchers and advisers can build partnerships in the organic community by beginning with one or a small group of farmers and expanding their network through farmer recommendations.

Most organic farmers hold more positive perceptions of individuals than institutions, and through the use of a participatory process that values farmer input and knowledge, all individuals participating would benefit from these exchanges (Ingram, 2008; Lyon, Bell, Croll, Jackson, & Gratton, 2010). This approach builds a common understanding, rapport, and trust that will enhance the effectiveness of organic programming.
Recognize That Region Will Influence Information Sources and Information Sharing.

The importance of a "local" network is also visible in farmers' preference for local information sources (Turner et al., 2007). Variability in farm characteristics across regions affects farmer information needs, which is even more pronounced among organic farms. In organic agriculture there are no silver bullets, and organic farmers do not "farm from a label" (Hanson, Dismikes, Chambers, Greene, & Kremen, 2004); thus, organic farmers want locally sourced information to solve local problems.

Regional factors have also been found to influence the openness of information sharing in farmer networks. Depending on the level of market competition, farm size, and access to land in a region, information sharing may be extremely limited. One study found farmers in Illinois getting most of their information from other farmers, while farmers in Colorado and California shared little information with other farmers due to market competition (Duram, 2005). These regional variations will likely influence the effectiveness of social networks as conduits of information.

Realize That the Messenger Must Consider the Interpretation of the Message.

Rogers' (1983) innovation diffusion research emphasized adopter characteristics and key elements of the technology to be adopted. Brown (1981) tells us that characteristics of the adopter are important, as are elements of the technology, but the characteristics of the messenger are just as important. The attitude of the messenger, or expert, toward organic agriculture has an impact on the message (Reisner, 1992; Wheeler, 2008). A messenger's perceptions of organic as an innovation, an evolving system that integrates old and new tools and methods, or a "return to 1950s agriculture" will affect the dissemination of organic agriculture (Wheeler, 2008).

The messenger must also consider that communication is more complex than simply a sender transmitting a message to a receiver. A sender's values are expressed both explicitly and implicitly in the message through the choice of language, selection of content, and the medium through which it is conveyed (Reisner, 1992). As individuals interpret messages through their perspectives, which are greatly influenced by values and trust in the sender, messengers need to consider the values their messages convey (Reisner, 1992; Zwickle, 2011).

Conclusion

At the core of these recommendations is the recognition that organic farmers need the support that Extension can provide, and for this to occur Extension needs the expertise and the capacity to provide information and support in meaningful ways. All groups will benefit from collaborations among experienced organic farmers, researchers, and advisers through communities of practice and knowledge-networks. There are several challenges to providing information specific to regional organic farming needs that include integrating our work into local farmer networks, encouraging local experienced organic farmers to help train our advisers, and developing trust and building relationships. These recommendations can help overcome some of these challenges.
References


Lyon, A., Bell, M., Croll, N. S., Jackson, R., & Gratton, C. (2010). Maculate conceptions: Power,


