Agronomy in the Field: Increasing Agronomic Skills for Women

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Introduction

According to the 2012 Ag Census, there are 32,167 women farm operators in Iowa, representing 9,102,738 acres. Of that group, 7,108 are listed as principal operators, representing 868,909 acres. Although Iowa State University does not discriminate in agronomic training offered, some studies show women are more comfortable attending workshops designed for female attendance only.

This educational effort occurred as a result of the success of an "Agronomy in the Field" cohort in north central Iowa, as well as the availability of resources and funding for women's educational efforts in the Washington County area. A women's advisory council suggested this educational opportunity would be of interest to women in southeast Iowa and a good effort to support with the funds available. Increasing agronomic skills of women provides the opportunity for better decision-making, increased awareness of field conditions, a better understanding of inputs for crop production, and increased confidence in communication with spouse, farming partner, ag retailer, or tenant.

Materials and Methods

This cohort of "Agronomy in the Field" was initiated May 2016. This group met bi-monthly throughout the growing season beginning May 2. Each session was designed to be spent in the field learning about growing conditions, growth stages, taking stand counts, weed, disease and insect identification, scouting techniques, treatment thresholds, water quality, tillage practices, soil health, soil sampling, and making yield estimates. Ten sessions were held at the Southeast Research and Demonstration Farm, Crawfordsville, Iowa. Forty-six women expressed interest in this type of session and received email invitations to each session. On average, 12 women attended each session, with many of them being regular attendees. Each session started with introduction of the farm staff and an update of current activities and research being conducted at the farm. The field sessions were designed to be "hands-on." Farm staff assigned a corn and soybean field where participants were allowed to dig plants, conduct stand counts, and scout for insects and diseases. Weed identification was done in the weed garden as well as collecting specimens throughout the farm. The cover crop plots and long-term tillage trials also were used to support sessions. In addition to the hands-on sessions in the field, all participants, whether they attended or not, received an email recap of the topics discussed in the field, supporting photos, current conditions, and electronic access to publications distributed as supporting teaching materials and reference guides.

Results and Discussion

An evaluation of participants was conducted in fall 2016. As a result of the evaluation, the respondents (n = 14) reported an increase in knowledge from "none" or "a little" to "some" or "a lot" in the following areas:

- Factors affecting planting depth: 69%
- Corn germination process: 76%
- Staging corn and soybeans: 91%

- Soil properties (chemical, physical, and biological): 67%
- Weed identification: 34%
- The disease triangle and making fungicide application decisions: 42%
- Insect concerns in corn and soybean: 50%
- Soil sampling for nutrients: 50%

The women were asked to rank how valuable the Agronomy in the Field Sessions were on a scale of not valuable, somewhat valuable, valuable, mostly valuable, and highly valuable. Of the respondents, 69 percent said highly valuable, 15 percent said mostly valuable, and 15 percent valuable.

Participants also reported they felt these sessions helped them have more confidence when having conversations with either their spouse, farming partner, ag retailer, customers, or tenant. Additional comments from participants include having a better understanding of their tenant's perspective, gained confidence in making input decisions, feeling more knowledgeable regarding basic agronomy skills, and being a better advocate for agriculture.

Having access to the research and demonstration farm with a multitude of conditions, trials, and daily works being done was extremely valuable to this effort. Participants were not only exposed to various research trials, but had the opportunity to experience varying conditions expected on an individual's farm.

Due to the success of the hands-on sessions at the research and demonstration farm, the group continued to meet in a class-type session during the winter months to cover additional topics such as soil fertility (interpreting soil test results), genetically modified organisms and food, and herbicide programs. Agronomy in the Field will continue at the Southeast Research and Demonstration Farm during the 2017 growing season.

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