

# 2014-2017 Northeast SARE State Program Project Plan for Delaware State University

## Project Title: Beekeeping and Attracting Pollinators

### PROJECT TOPIC AND JUSTIFICATION OF TRAINING NEED

Pollinators are an essential aspect of successfully growing fruits and vegetables. However, many farmers, especially those who manage small farms know little about attracting them. Likewise, this is often an overlooked area for Ag service providers and the topic rarely comes up while reviewing a farmer's operation. Generalist Ag service providers who do not work with bees could still benefit from and utilize knowledge gained in this area.

Beekeeping is obviously another way, in addition to promoting native pollinators, to ensure pollinators are on a farm when they are needed. The clear additional benefit of honeybees to farmers is the value added products from their honey. This project will educate Ag service providers and farmers directly through a series of workshops. Participants may have a wide range of knowledge levels so the workshops will be of varying levels. Beginners through experts will be able to benefit from the project and some will be able to drastically improve their knowledge, skills and production by going to multiple workshops.

A few years ago, DSU did a series of beekeeping workshops with very high participation levels at all of the events. Interest remained very high, but the funding for these activities ended and farmers and service providers were left without local educational opportunities. A honey extractor was also purchased by DSU during this time, but was never able to be utilized by farmers or service providers.

A poster board survey was conducted at Delaware Ag Week in January to gauge the interests of farmers and Ag service providers on multiple sustainable agriculture topics. 17 service providers and 53 farmers chose two of nine categories that they were most interested in. 6 service providers and 25 farmers chose beekeeping/pollinators. This was the highest selected category for farmers and the second highest among service providers.

### 5. BENEFICIARY AUDIENCE DESCRIPTION and RECRUITMENT EFFORTS

#### Beneficiaries

Ag service providers from cooperative extension and other organizations and farmers will attend workshops.

#### Recruitment Efforts

- Participants of previous DSU and SARE state program workshops will be contacted directly and notified of upcoming programming.
- Ag service providers from DSU and UDEL will also be contacted directly and encouraged to participate, especially in the attracting pollinator's programming.
- DSU will work with the Delaware Beekeeper's Association to not only recruit farmers, but to help organize trainings and attract qualified speakers from around the region.

### 3. LEARNING OUTCOMES

Beneficiaries will increase knowledge and improve their ability to assist farmers in the following aspects of beekeeping and attracting pollinators:

Beekeeping:

- Best Management Practices
- Current Research and recommendations
- Methods for increasing over-wintering
- Honey production, extracting, and marketing techniques
- Economics of beekeeping

Attracting pollinators

- Types of pollinators
- Benefits of increasing pollinators
- Methods/crops
- Best management practices for conserving and promoting pollinators

As a result, the beneficiaries will be able to include beekeeping and attracting pollinators in their programming and to better assist farmers, make recommendations, and encourage farmer adoption.

### 4. EDUCATIONAL ACTIVITIES PLANNED

- A series of beekeeping workshops (a total of 6 over the three years) will be held with varying levels of content. The first workshops will be aimed at beginners and subsequent workshops will progressively become more advanced. Depending on the needs of participants, the number of each level (beginning to advanced) and specific focuses will be adjusted.
- Demonstration hives will be managed on DSU's research farm and on two farms. At least one of the above 6 workshops will take place at one or both of the on-farm demonstrations.
- A Presentation about attracting pollinators will be given at DSU's Small Farm Conference.
- Educational materials will be made including three fact sheets, two educational videos (One for beekeeping, and one for attracting pollinators), and a GIS map of DSU's farm.
- Following specific trainings, farmers with hives will use DSU's honey extractor in order to sell their honey.

**SEE ATTACHED MILESTONES FOR YEARS 1, 2 AND 3**

### VERIFICATION OF LEARNING OUTCOMES

- Surveys will be done at all events to determine level of knowledge gained as well as guide future programming.
- A survey at the end of the three-year project will gauge the degree of knowledge and skills gained throughout the length of the project.
- Activities such as farmers using the honey extractor will demonstrate the knowledge and skills gained.

### 2a. AG SERVICE PROVIDER ACTIONS PROJECT PERFORMANCE TARGET

- 5 Ag service providers in Delaware and the Eastern Shore of Maryland will include knowledge and skills gained at trainings in their programs through workshops, trainings, the development of educational materials and one-on-one consultations delivered to 75 farmers.

### 2b. INDICATORS OF AG SERVICE PROVIDER ACTIONS

- The Number and type of ag service providers who deliver educational programs and/or services
- The number and type of programs or services they deliver (including content or topics)
- The number of farmers they reach/teach
- The number of acres these farmers manage
- Number of hives farmers manage

### VERIFICATION OF PERFORMANCE TARGET

- Participants will receive a template for recording information about their educational efforts with farmers, and sample questionnaires for use at workshops or other events to collect farmer contact and demographic information and to verify learning. The benefits to participants as well as the project of collecting and maintaining this data will be emphasized.
- Participants will respond to follow-up surveys at the end of years 2 and 3 of the state plan.
- In-person or telephone interviews will be conducted with each participant in order to fully understand the results and how to improve future programming.

### 1a. FARMER ACTIONS DESIRED

Farmers:

- Will add hives to their farm
- Will increase honey production
- Will improve over-wintering success rates of hives
- Will improve hive Best Management Practices (Nutrition, pest management etc.)
- Will adopt pollinator-attracting techniques/crops

**Performance Target:**

- 20 Farmers will improve hive management practices, 4 will add hives to their farm

### 1b. INDICATORS OF FARMER ACTIONS

- Number of hives added
- Number of pounds of honey increased from before trainings
- Number of farmers who have adopted hive management practices
- Number of farmers and the number of acres they farm who adopt pollinator-attracting techniques/crops

### VERIFICATION OF FARMER ACTIONS (optional)

- Farmers will be reached directly and asked to participate in follow-up verification through in-person and telephone interviews and electronic surveys.
- Ag service Providers will be asked to record the farmers they reach, obtain contact information whenever possible, and record any information they learn about farmer follow-up actions.
- Ag service providers will receive a template to record the results and outcomes of their educational activities as well as surveys that they can distribute to farmers.