Master Pollinator Steward Hybrid Course

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Program Objectives

- Use research-based information to meet the growing public interest in honey bees and native pollinators.
- Provide a better understanding of the importance of pollinators to society.
- Identify opportunities for individuals and communities to create or improve pollinator habitats in an area.
- Provide a broader education on plants and pollinators for new and experienced beekeepers.

Teaching Methods

This course was taught as a hybrid, with two hour lecture classes by Zoom on Mondays, and two hour in-person lab classes on Wednesdays.

- Participants received a course manual containing six chapters.
- Participants had a chapter reading assignment each week.
- Participants had a set of 15-20 questions to answer for each chapter.
- Zoom classes were taught by MU Extension specialists.
- Lab classes were taught by Jennifer Schutter, MU Extension horticulture specialist, and local experts.
- Six, two hour lab classes were held outdoors where participants could social distance.

Participants did insect sweeps during lab class to identify pollinators.

Program Activities

Lab classes met outdoors once a week for two hours. Activities taught supplemented what was learned in the Zoom lecture class.

- Lab 1-insect overview; this class included reading and understanding pesticide labels and net sweeps of insects for identification.
- Lab 2-Pollination Mechanisms and Plant-Pollinator Relationships; this class included identifying flowers species, flower types and insects found on the flowers.
- Lab 3-Native Pollinators & Their Habitats; solitary bees and wasps were discussed and identified, and each participant made a solitary bee house to take home.
- Lab 4-Honeybees as Pollinators: Their Habitats & Products; a local beekeeper discussed beekeeping and the parts of a hive. Participants sampled different types of honey.
- Lab 5-Conserving Missouri's Wild and Managed Pollinators: Importance of Pollinators and Threats to Them; participants were given a tour of a farm that had been restored back to prairie. They learned how prairie restoration brought back birds, turkey, deer and other wildlife.
- Lab 6-Conserving Missouri's Wild and Managed Pollinators: Opportunities for Conservation By Missouri Farms and Private Lands; in this class participants learned of citizen science projects like Monarch Watch, Bumblebee Watch and the Great Sunflower Project. They were also taken on a native tree and shrub walk in a Missouri Department of Conservation Area to see how native trees play a role in attracting and sustaining native insects and birds.

Evaluation

In the evaluations, all participants indicated knowledge gain. The course was rated 3.9 out 4 on a 1-4 Likert Scale. All of the participants indicated that they planned to create a pollinator friendly garden or restore areas on their farm in to native prairie to increase pollinator numbers. All participants indicated they are more aware of how pesticides can cause adverse affects on pollinators. All indicated they have a better understanding of citizen science projects and planned to get involved in one or more.

Program Outcomes

- 11 individuals from four counties completed the program. Each received a certificate of completion.
- By the end of the course, three-fourths of the class participants had already established or was in the process of establishing a native plant garden or restoring areas on their farm back to prairie.
- By the end of the class, half of the participants were participating in a citizen science project like Monarch Watch, Bumblebee Watch or the Great Sunflower Project.
- One year after completion of the course, all participants indicated that they will have established an area to attract more pollinators.