

#### **MONTANA BEEKEEPING AND POLLINATOR EDUCATION**

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## **Needs Identification**



### **Program Activities**

Twenty-three targeted educational events were held in twelve cities in eastern Montana with 734 direct contacts. Outreach was completed through in-person teaching, webinars, field days, outdoor classrooms, in-service training, newspaper articles, and radio and television appearances with an audience of nearly 14,000.

### Impacts

Participants saw a 39% increase in confidence in keeping bees and 56% increase in confidence in managing varroa mites

Honey bees and pollinators are of critical importance to global food production and play a major role in the success of Montana's primary industry, agriculture. Beyond the fascination and rewards from keeping bees, humans are deeply concerned about the wellbeing of bees and other pollinators

Colony collapse disorder and declining populations has spurred an interest in education regarding beekeeping, habitat preservation, restoration of beneficial insects, and the sustainability of modern agriculture. This interest coupled with a lack of availability of resources and relevant information in rural Montana was identified during a needs assessment.



Hives were placed on Fort Peck tribal lands to facilitate learning. An instructional innovation grant coupled with a Western SARE grant funded a 6-colony learning laboratory where students could gain better understanding of key concepts through experiential learning. In collaboration with the US Army Corp of Engineers (USACE) and the Fort Peck Interpretive center an observation hive was placed in the museum and a 23-acre pollinator plot established on the grounds. Top learning points were beginning beekeeping knowledge gained, improved understanding and confidence in pest management, greater understanding of honey bee biology and pollinator protection, and greater success in overwintering colonies. Youth gained greater understanding of the importance of honey bees and other pollinators while reducing their fear and insecurity around bees. Collaborative relationships have been formed with the Fort Peck tribes, USACE, local Conservation Districts, NRCS, and area schools.



## **Educational Objectives**

- Raise awareness and preserve honey bees and pollinators.
- Improve success of novice beekeepers.
- Provide hands-on experiential learning opportunities.
- Improve pest management success for hobbyists.
- Introduce youth to bees, beekeeping, and reduce fears.
- Provide a clearinghouse of beekeeping and pollinator resources available to MSU Extension personnel.
- Improve pesticide applicator/beekeeper interactions.
- Reduce pesticide exposure to bees and loss of habitat.

### Outcomes

- Beekeeping 101 classes
- >Advanced beekeeping IPM classes
- Winterizing colonies workshops
- > Webinars
- Pollinator plots
- Pesticide training
- Field days
- Outdoor classroom
- Cloverbud day camp
- >Teacher in-service
- Regional Agent Retreats
- Curriculum Development
- Beekeeping SharePoint site
- Articles, radio, & television spots





# **Future Outreach**

Enhancing colleague participation, advanced beekeeping topics, further curriculum development, and increased experiential learning opportunities are goals for future years.









Implementation of 6-colony









learning laboratory for experiential learning

Conservation District Employee Training