



Farming with Beneficial Insects for Pest Control: A Conservation Biological Control Short Course

Learn how to support native beneficial insects – predators and parasitoids of pests – in your farm, orchard, or garden.

Tuesday, June 19, 2018

9:00 AM – 4:00 PM

Leon Community Clubhouse

35964 Leon Rd.

Charlo, MT 59824

Course Registration Fee: \$25

Space is limited! Pre-registration is required.

<https://tinyurl.com/montanacbc>

Continuing education credits offered:

CCA (6 CEUs), SAF (5 CFE credits), TWS (5.5 contact hours), Pesticide Applicator (TBD)

Conservation biological control is a science-based pest management strategy that seeks to integrate beneficial insects back into cropping systems for natural pest control. In this full-day course, learn about supporting beneficial insects that provide pest control, how common farm practices can impact beneficial insects, and how to assess and create farm habitat for beneficial insects.

Registration includes The Xerces Society's Conservation Biological Control Toolkit which includes Xerces' book, *Farming With Native Beneficial Insects*, as well as habitat management guidelines and relevant USDA-NRCS and extension publications.

Lunch is NOT provided. Please plan to bring a sack lunch and a refillable water bottle.

SHORT COURSE TRAINING SKILLS AND OBJECTIVES

- The importance of beneficial insects—predators and parasitoids that attack insect pests.
- Overview of conservation biological control and integrated pest management (IPM).
- Become familiar with the most common beneficial insect groups.
- How to recognize the habitat needs of beneficial insects and identify habitat deficiencies.
- Planning for habitat improvements—site prep, insectary plantings, hedgerows, beetle banks...
- Best management practices to minimize potential negative impacts of farm practices on predators, parasitoids, and pollinators.
- USDA conservation programs—technical and financial assistance to enhance diversity on farms.

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Acknowledgements

This Short Course is made possible with the support of Western Sustainable Agriculture Research & Education. Special thanks to the Lake County Conservation District and USDA-NRCS in Montana for course support.

Reasonable Accommodations

The Xerces Society & the USDA NRCS provides reasonable accommodations for special events with adequate notice. To request accommodation, please contact Thelma Heidel-Baker at 612-770-6793 or thelma@xerces.org by Friday, June 12, 2018.

Photo credit

Spider wasp on *Pycnanthemum tenuifolium*, Nancy Lee Adamson, Xerces Society

COURSE AGENDA (tentative)

Welcome

Module 1 Farming with Beneficial Insects: Conservation Biological Control (CBC)

- Role of beneficial insects in conservation biological control
- Status of beneficial insect conservation & summary of conservation biocontrol case studies

Module 2 Farm Practices for Beneficial Insects

- Overview of common farm practices and their impact on conservation biocontrol
- Mitigating potential negative impacts of farm practices on beneficial insects

Break

Module 3 Designing and Restoring Habitat for Beneficial Insects

- Conservation practices that support beneficial insects (beetle banks, buffers, windbreaks, cover crops, field borders, hedgerows, insectary strips, wildflower meadows, and more)
- Habitat conservation methods (site preparation, propagation, and maintenance)

Conservation biocontrol research in Montana– (Dr. Subodh Adhikari, University of Idaho and Washington State University)

Lunch Please bring your own sack lunch.

USDA Farm Bill Programs Supporting Beneficial Insects (Ben Montgomery, USDA NRCS)

- USDA Conservation Programs and Practices supporting pollinators, other beneficial insects, and other wildlife conservation

Module 4 Common Beneficial Insect Groups

- Introduction to beneficial insects and the ecological services they provide
- Summary of beneficial insect biology and habitat needs
- Profiles of common predators and parasitoids and the insect pests they attack

Module 5 .Assessing Baseline Farm Conditions for Beneficial Insects

- Overview of habitat diversity values
- Introduction to the Beneficial Insect Habitat Assessment Guide

Field Activities at Lowdown Farm

- Scouting and identification activity
- Habitat assessment for beneficial insects

Additional Resources and Wrap-Up

- Questions
- Evaluations
- Raffle

INSTRUCTORS

Dr. Thelma Heidel-Baker, Conservation Biocontrol Specialist, Xerces Society

GUEST SPEAKERS

Dr. Subodh Adhikari, Postdoctoral Researcher at University of Idaho and Washington State University

Ben Montgomery, District Conservationist, USDA NRCS in Ronan, MT