



Farming with Beneficial Insects for Pest Control Short Course

Learn how to attract native beneficial insects—predators and parasitoids of pests—to your orchard, farm, or garden!

Monday, January 9th, 2017, 9:00 AM – 3:30 PM

Virginia Biological Farming Pre-Conference Workshop
The Homestead Resort, 1766 Homestead Dr.
Hot Springs, VA 24445

Pre-registration is required by December 20th, 2016.

Space is limited, so register early!

Register at <http://vabf.org/conference/>

Intended Audience

The content of this course is tailored to the needs of farmers, NRCS, SWCD, Cooperative Extension, and state department of agriculture employees, as well as crop consultants, natural resource specialists, and non-governmental conservation organization staff.

Cost

Registration is \$60 per person. Course registration includes the Xerces Society's Pollinator Conservation Toolkit and a copy of *Farming With Native Beneficial Insects*.

Canceled registrations can be refunded until December 22nd, 2016.

Please plan to bring a sack lunch and a refillable water bottle!

In this full-day Conservation Biological Control short course, learn about supporting beneficial insects that provide pest control. Conservation biological control is a science-based pest management strategy that seeks to integrate beneficial insects back into cropping systems for natural pest control, ultimately reducing and in some cases eliminating the need for pesticides. Participants will learn how common farm practices can impact beneficial insects and how to assess and create farm habitat for beneficial insects.

In response to growing interest in promoting beneficial insects for pest management on farms, the Xerces Society has authored the book *Farming With Native Beneficial Insects* and developed this Conservation Biological Control Short Course to educate farmers, agriculture employees, natural resource specialists, land managers, and conservation organization staff.

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.
- The design and implementation of habitat improvements, including site preparation, insectary strip plantings, hedgerows, beetle banks, and more.
- The current best management practices that minimize land-use impacts on beneficial insects and mitigate exposure to insecticides.
- How to access USDA conservation programs for financial and technical support.



Continuing education credits will be offered: Certified Crop Advisor (6 CEUs), Society of American Foresters (5 CFE credits), The Wildlife Society (5.5 contact hours)

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Register at <http://vabf.org/conference/> (You do not have to attend the full conference in order to attend this short course.)

Acknowledgements

This Short Course is made possible with the support of Southern SARE (SSARE) and USDA Natural Resources Conservation Service (NRCS). Additional support for this training is provided by the Audrey and J.J. Martindale Foundation, Cascadian Farm, Ceres Trust, CS Fund, Disney Worldwide Conservation Fund, General Mills, the Irwin Andrew Porter Foundation, Turner Foundation, Inc., Whole Foods Market and its vendors, and Xerces Society members.

Special thanks to the Virginia Biological Farming Association, Virginia Tech Horticulture Department, Virginia Soil & Water Conservation Districts, Virginia Department of Game and Inland Fisheries for collaborating on, hosting, and sponsoring this event.

Reasonable Accommodations

The Xerces Society 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 Wednesday, January 4, 2017.

The USDA and the Xerces Society are equal opportunity providers and employers.

Photo credit

Ladybird beetle on common milkweed by Nancy Lee Adamson, the Xerces Society.



COURSE AGENDA

Welcome [Virginia Biological Farming Association](#), [Xerces Society](#) and [USDA NRCS](#)

Module 1 [Farming with Beneficial Insects: Conservation Biological Control \(CBC\)](#)

- Overview of conservation biological control and integrated pest management
- Status of beneficial insect conservation & summary of conservation biocontrol case studies

Module 2 [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 3 [Conservation Biological Control Research in Virginia and the U.S.](#)

- Overview of current issues and conservation biological control research in Virginia

Module 4 [USDA Farm Bill Programs Supporting Beneficial Insects and Other Wildlife in Virginia](#)

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

Module 5 [Assessing Baseline Farm Conditions for Beneficial Insects](#)

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

Module 6 [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)
- Farm case studies

Module 7 [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

Module 8 [Additional Resources and Wrap-Up](#)

- Questions & Evaluations

INSTRUCTORS

Thelma Heidel-Baker, PhD, Conservation Biocontrol Specialist, Xerces Society, Random Lake, Wisconsin. Thelma is the insect pest management specialist for the Xerces Society, with extensive experience in biological control and integrated pest management (IPM). She provides nationwide support for farming with reduced risks to beneficial insect. Thelma received her Ph.D. in entomology from University of Minnesota where she studied the role of beneficial insects in soybean IPM.

Nancy Lee Adamson, PhD, Senior Pollinator Conservation Specialist, East Region, Xerces Society and USDA NRCS, East National Technology Support Center, Greensboro, NC. Nancy supports pollinator and other agriculturally beneficial insect conservation with Farm Bill Programs. She teaches about native bees, other wildlife, and native plants that are vital to our natural and cultivated landscapes. Nancy received her PhD in entomology from Virginia Tech where she studied native bee crop pollinators.

GUEST SPEAKERS

Jeffray Jones, MS, State Wildlife Biologist, Virginia Natural Resources Conservation Service, Richmond, VA. Jeffray supports NRCS and partners throughout the state working to protect and enhance natural resources on private lands.

Megan O'Rourke, PhD, Assistant Professor of Sustainable Food Production Systems, Virginia Tech, Blacksburg, VA. Megan seeks to develop sustainable methods for vegetable and field crop production in the U.S. and developing countries. Her work has focused on the impacts of native pollinator habitats on biological pest control and conserving bees, reduced tillage vegetable production, landscape-scale pest management, resistance management in genetically modified crops, cover crops, and high tunnels. Megan has worked internationally with the Department of Agriculture's Foreign Agricultural Service and the U.S. Agency for International Development.