

# Integrated Pest Management

While every farming system is unique, the principles of integrated pest management (IPM) apply universally. NCR-SARE funds projects on ecologically-based pest management strategies that farmers throughout the region are using to address pest problems. This investment in pest management strategies helps develop more complex, diverse ecosystems in the region.

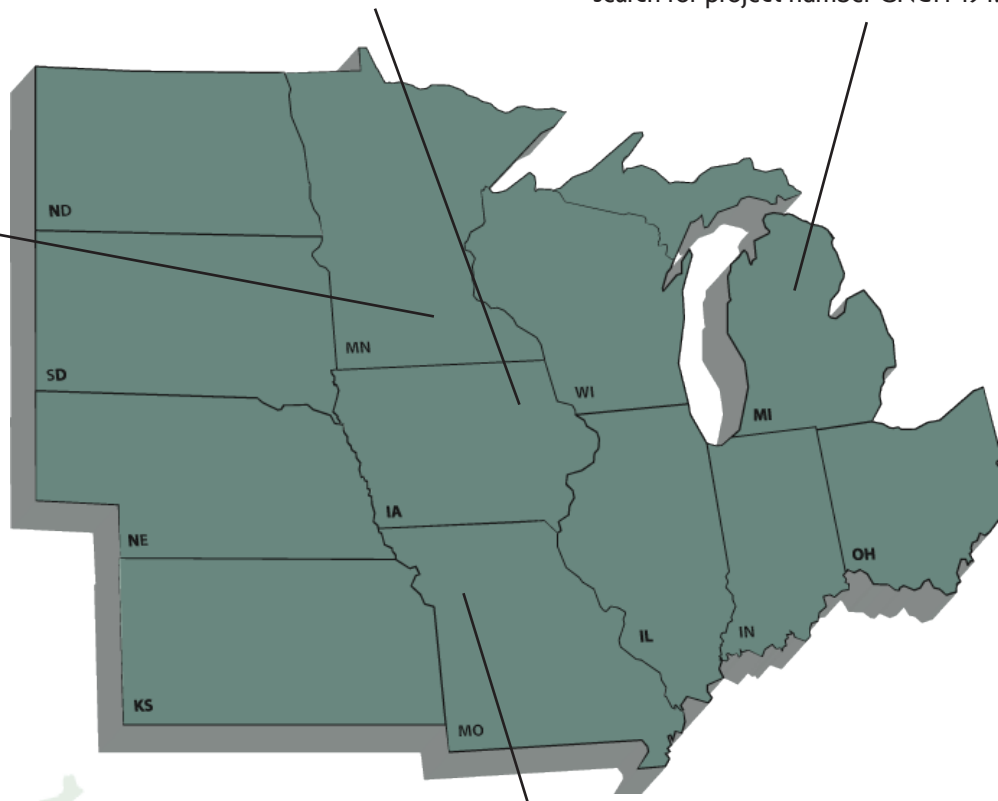
## NCR-SARE Project Sampler

To view SARE's entire IPM portfolio, or just the North Central Region's, visit <https://projects.sare.org>. For selected NCR-SARE IPM grants, see the reverse side.

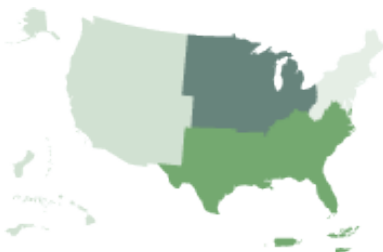
Bacterial wilt has cost cucurbit growers more than \$13 million annually. Researchers at Iowa State University assessed perimeter trap cropping and delayed removal of row covers which encouraged potential for control of bacterial wilt on muskmelon with less reliance on insecticides. See <https://projects.sare.org> and search for project number LNC10-323.

Cucumbers are a widely grown crop of the North Central region, yet they are also one of the most likely to face pollination and biological control deficits. This project focused on attracting natural enemies and pollinators with flowering cover crops in the field. See <https://projects.sare.org> and search for project number GNC14-194.

A graduate student at the University of Minnesota established mixed vegetable crops adjacent to native prairie plots to promote beneficial insects. See <https://projects.sare.org> and search for project number GNC16-229.



Missouri producers experimented with trap crops and chickens to control squash bugs for their vegetable produce business. The addition of the perimeter trap crops also brought in a number of beneficial insects to their farm. See <https://projects.sare.org> and search for project number FNC13-938.



# NCR-SARE's Integrated Pest Management Portfolio

## Selected Grants

### RESEARCH AND EDUCATION GRANTS

#### Optimizing Row Covers and Perimeter Trap Crops for Cucurbit Pest Management

Mark Gleason, Iowa State University, Iowa, LNC10-323, \$174,462

#### Suppression of Soybean Diseases through the Use of Cover Crops

Darin Eastburn, University of Illinois, Illinois, LNC10-321, \$174,823

### PROFESSIONAL DEVELOPMENT GRANTS

#### Training an Influential Network of Farming Beekeeping and Extension Experts to Promote Bee Health

Rebecca Masterman, University of Minnesota Bee Squad, Minnesota, ENC17-160, \$75,000

#### The Conservation Biological Control Short Course

Eric Mader, Xerces Society, Minnesota, ENC13-140, \$71,710

#### Enhancing Integrated Pest Management Academy to Provide Professional Development Opportunities for Agricultural Educators that Increase Economically and Environmentally Sustainable Agriculture in Michigan

Erin Lizotte, Michigan State University Extension, Michigan, ENC12-130, \$72,484

### FARMER AND RANCHER GRANTS

#### Chickens and Trap Crops-An Integration of Sustainable Approaches to Insect Pest Control in Vegetable Production

Gary Wenig, Rocky Creek Valley Farm, Missouri, FNC13-938, \$6,462

#### Michigan Organic Hops Production: Utilizing Current IPM Models to Investigate Biocontrol Effectiveness on Hops Pests and Diseases in an Organic Production System

Bonnie Steinman, Hop Head Farms, Michigan, FNC10-804, \$5,993

#### Breeding Strategies for Improving Resistance to Gastrointestinal Nematodes in Wool Breeds of Sheep

Kathy Bielek, Misty Oaks Farm, Ohio, FNC10-794, \$17,640

### GRADUATE STUDENT GRANTS

#### Maximizing Pollinator Protection and Natural Pest Suppression in Minnesota Fruit and Vegetable Crops

Eric Middleton, University of Minnesota, Minnesota, GNC16-229, \$12,000

#### Integrating Flowering Windbreaks for Insect Management in Cucumbers

Nicole Quinn, Michigan State University, Michigan, GNC14-194, \$9,989

#### Beyond Economic Thresholds: Incorporating Proactive Pest Management Strategies in Alfalfa Pest Management Programs for Potato Leafhopper

Elissa Chasen, University of Wisconsin, Wisconsin, GNC13-167, \$8,509

#### Effects of Pest Management and Conservation Plantings of Bee Communities in Highbush Blueberry

Emily May, Michigan State University, Michigan, GNC13-177, \$9,962

Updated 2018

For information on more SARE-funded IPM projects search the SARE project database: <https://projects.sare.org>.



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