

Integrated Pest Management: A guide to resources from Michigan State University

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There are many valuable integrated pest management (IPM) resources and tools available to producers through Michigan State University (MSU). As production systems become more heavily reliant on real-time information and address evolving issues such as invasive pests, pesticide resistance and challenging environmental conditions, MSU Extension is here to assist producers in maintaining an IPM program that supports economic and environmental sustainability.

Real-time information

When it comes to keeping up with the latest developments that affect agriculture, MSU Extension is an excellent resource. MSU Extension News for agriculture offers the expertise of MSU scientists and educators through online articles addressing pest management and provides scouting reports for many cropping systems. You can sign up to receive customized digests via email that address topics or cropping systems of interest to you. To access these resources, visit msue.msu.edu and click the Agriculture tab at the top of the page.

Keeping up with the latest weather developments is a critical component of every IPM program. The Enviro-weather program at MSU is a sustainable weather-based information system that helps users make pest, production, and natural resource management decisions in Michigan. Enviro-weather's website offers general weather information such as rainfall, temperature, degree

day accumulations, wind direction and wind speed. Additionally, the Enviro-weather website houses dozens of pest and disease models to help growers more accurately gauge pest pressure, development, and optimal treatment timings throughout the season. Lastly, Enviro-weather offers irrigation scheduling tools and evapotranspiration data. The tools and models on the website use data collected by 70 weather stations located around Michigan. Growers can select the weather station closest to their farm to localize the information, increasing its relevance for individuals around the state.

Enviro-weather addresses pest and disease issues in the following production systems:

- Field crops
- Fruit
- Trees
- Turfgrass
- Vegetables
- Landscape & Nursery

Visit enviroweather.msu.edu

IPM: Integrated Pest Management

MICHIGAN STATE UNIVERSITY | Extension

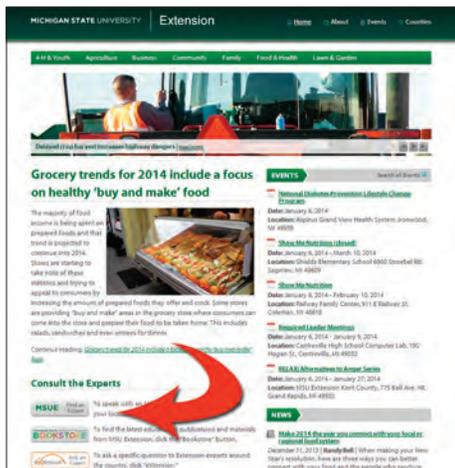
Online resources

MSU offers a number of online resources.

The **MSU IPM website** (www.ipm.msu.edu) is devoted to disseminating information regarding sustainable pest management practices. Consider it your link to dozens of crop specific IPM resources. It also hosts pesticide safety and education information including pesticide applicator recertification.

MSUE Find an Expert can help you find an MSU Extension expert who covers your location. Click the MSUE Find an Expert button at: msue.msu.edu

eXtension Ask An Expert allows you to send a question to Extension experts from universities around the country. Click the eXtension Ask an Expert button at the bottom of the MSUE website: msue.msu.edu.



MSUE website (msue.msu.edu) with arrow pointing to Find an Expert, MSUE bookstore and eXtension Ask An Expert links.

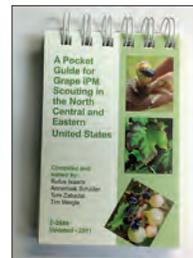
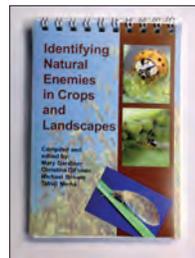
Diagnostics and Nutrient Testing

Need help diagnosing a problem? MSU also offers help in identifying pests through MSU Diagnostic Services. The diagnostics laboratory specializes in diagnosing plant problems caused by nematodes, insects, mites, ticks, fungi, bacteria, and viruses. To access more information, visit: www.pestid.msu.edu

The MSU Soil and Plant Nutrient Laboratory offers a variety of analytical services on samples of soil, greenhouse growth media, composts, plant tissue or water and can be accessed via the web at: <http://www.spnl.msu.edu/>

Publications

MSU has also produced a number of print resources related to IPM, including pocket-size field guides for identifying pest and beneficial insects, crop management guides, weed identification resources and much more. You can access these publications and more at the MSUE Online Bookstore (bookstore.msue.msu.edu); type IPM in the search box for a complete list of IPM related materials.



Pocket-sized scouting guides available at MSU Extension Bookstore section of shop.msu.edu

These crop-specific websites have extensive IPM information:

- apples.msu.edu
- blueberries.msu.edu
- cherries.msu.edu
- chestnuts.msu.edu
- grapes.msu.edu
- hops.msu.edu

For others, check links at: www.ipm.msu.edu

And for the home gardener:

- migarden.msu.edu

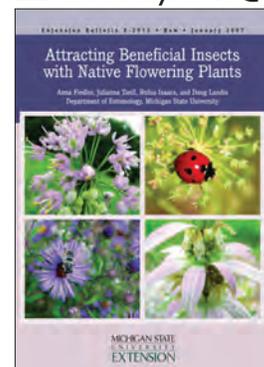
Learn about using native plants to attract beneficial insects and pollinators as well as gain other ecosystem services at www.nativeplants.msu.edu

Events and training

For a list of upcoming IPM programs visit the MSUE Events page via msue.msu.edu and search by topic or location.

For more information

Contact MSUE IPM Educator Erin Lizotte at taylo548@msu.edu



MSU Extension bulletin E-2973 Attracting Beneficial Insects with Native Flowering Plants. Purchase online at MSUE Bookstore.

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