INTEGRATED PEST MANAGEMENT

Insights

September 2021: Volume 18, Issue 2

Photo by Steven Katovich, Bugwood.org.

Integrated Pest Management

Northeastern IPM Center

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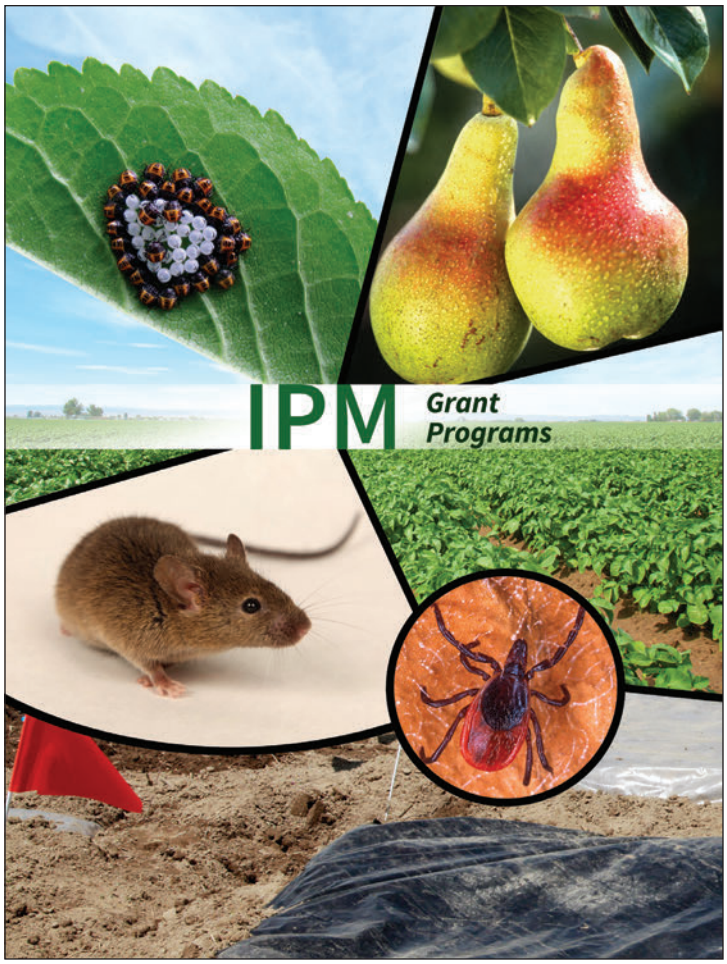
Center Announces Funding for IPM Projects, Strategic Plans, Production/Management Profiles

The Northeastern Integrated Pest Management (IPM) Center announces two funding opportunities through its grants programs, supported by the National Institute of Food and Agriculture at the United States Department of Agriculture (USDA-NIFA).

For both programs, there is a 12-month time limit on funded projects, and the application deadline is November 11, 2021.



IPM Partnership Grants

Each year, the Center offers funding through its IPM Partnership Grants Program. Funded projects must foster the development and adoption of IPM, address or identify regional priorities, and benefit the northeastern region at large.

The program supports three project types:

- IPM Applied Research
- IPM Working Groups
- IPM Communications

Up to $150,000 in total will be available for 2022, generally with a maximum of $30,000 per award, although *Applied Research* projects that include an 1890 land-grant institution or Native American-affiliated organization may apply for up to $40,000.

For more information or to apply for a Partnership Grant, visit ***neipmc.org/go/cnJQ****.*

Pest Management Strategic Plans and Production/Management Profiles

The Pest Management Strategic Plans and Production/Management Profiles Grants Program aims to fund new and updated pest management strategic plans (PMSPs) and production/management profiles (PMPs).

See "RFAs" on Page 2

What You Can Do to Befriend Monarch Butterflies and Other Pollinators

By Marcia Anderson, PhD, LTE
U.S. EPA-Center for Integrated Pest Management

Monarch butterflies (*Danaus plexippus*) are an incredible species that face a growing number of challenges.

Each year, monarchs utilize their sensory system and environmental cues to understand when to migrate. After breeding in the United States and southern Canada in the summer, they begin their southbound journey to Mexico in the fall. In the spring, they migrate back north.

This migration, as phenomenal as it may be, is becoming more difficult for the butterflies. Over the past few decades, the monarch butterfly population has been gradually declining due to the devastation of their breeding grounds and the impact of severe weather.

Luckily, there are small things we can all do to help this beautiful species survive.

Monarch Butterfly Populations Are Declining—Why?

Habitat Loss

It is essential that monarch butterflies have access to milkweed plants—their only host plant. This is especially important in the spring and summer when monarchs lay their eggs on milkweed and their caterpillars feed on the leaves as their sole food source.

Over the past few decades, milkweed has been frequently lost to mowing, weed management, and farming. The widespread application of herbicides on certain crops may have impacted field-edge milkweed on farms throughout the monarch migratory flyway.

Deforestation and illegal logging may also have contributed to loss of monarchs' overwintering sites in Mexico.

Monarch in the asters. Photo: Chip Taylor, Monarch Watch, University of Kansas.

Changing Weather Patterns

Severe weather is another reason the monarch population is declining. Extreme temperatures and droughts can have a significant impact on both milkweed and monarchs.

When monarchs overwinter in Mexico, warmer-than-normal temperatures can cause them to utilize their fat reserves more rapidly than they would otherwise. Monarchs with depleted fat reserves are less likely to survive the winter and successfully migrate north in the spring.

How Can You Help? Make a Monarch Waystation!

An excellent way to help monarchs survive their migration is by establishing monarch waystations. Waystations provide a rest stop for butterflies as they make their long journeys north and south.

Thousands of homeowners, schools, communities, parks, and farms have already created waystations that provide resources essential to monarch survival.

Keys to an Effective Waystation

Successful waystation habitats include:

- A sunny location
- Little or no wind
- At least two species of milkweed native to your area
- A plethora of native flowering nectar plants (e.g., sunflower, aster, coneflower, lupine, blazing star, iron weed, and mint)

With water, mulch, and some occasional weeding, you will be rewarded with a beautiful pollinator habitat and grateful fluttering friends.

When making your waystation, planting milkweed is the most essential component. Planting the wrong kind of milkweed—one that is not

RFAs

Continued from Cover Page

We encourage proposals to develop PMSPs or PMPs for crops, livestock, forestry, or other systems that do not have a plan, or to update outdated PMSPs or PMPs (those that are more than five years old).

The Center is particularly interested in proposals for:

- Low-bush/wild blueberries
- Greenhouse food crops—including fruiting vegetables, greens, hydroponic production, etc.
- Hemp
- Integrated vegetation management (IVM), such as rights-of-way

Up to $30,000 in total will be available for 2022, with a maximum of $15,000 per award.

*For more information or to apply for a PMSP or PMP grant, visit **neipmc.org/go/gRwL**.*

Monarch waystation. Photo: Chip Taylor, Monarch Watch, University of Kansas.

native to your area—may not help the monarchs. Once you've planted milkweed, add in low-maintenance mixtures of native flowering plants that flower through the entire growing season.

Additional Web Resources

To learn more about creating pollinator habitats, see EPA's web page on monarch protection at www.epa.gov/pollinator-protection/protecting-monarch-butterflies-pesticides.

It includes a section on creating habitats at home and provides links to resources from the Monarch Joint Venture, the United States Department of Agriculture, the U.S. Fish and Wildlife Service, and the National Wildlife Federation.

Planting milkweed. Photo: Chip Taylor, Monarch Watch, University of Kansas.

Convert American Roadsides to Habitats

American roadsides are often overlooked and underutilized as a place to create monarch waystations.

There are at least 17 million acres of roadsides in the United States that could be converted into habitats for pollinators, migratory birds, and small mammals. Several states have recognized this opportunity and changed their rights-of-way management practices to reintroduce native flowering plants that support pollinators.

This practice is called integrated roadside vegetation management (IRVM). It includes seeding native plants, employing selective mowing and prescribed burns, and making judicious use of herbicides.

Better Vegetation Management, Better Outcomes

IRVM programs save states and communities money, as it is cheaper to mow less frequently and to apply fewer herbicides. In addition, the added vegetation reduces runoff, improves air quality, and provides added resistance to invasive plants.

Consider as an example the Florida Department of Transportation. By reducing rights-of-ways mowing by 10 percent, they've provided space for pollinator-habitat growth along roadways from spring to fall. After the flowers have gone to seed, the habitats are mowed to prevent woody plants from taking hold.

Recognizing Opportunities to Protect Monarchs

The next time you are driving along the highway or through your local neighborhood, consider how you and your community can create a flourishing habitat to help protect monarch butterflies.

We hope this information has empowered you to support the development of waystations or to build your own. Thanks to efforts both large and small, our fluttering friends will be thankful.

Further Reading

For more information, visit EPA's pollinator protection webpage at www.epa.gov/pollinator-protection or view the EPA webinar on creating monarch habitats for schools and communities at neipmc.org/go/h6rw.

Maine Department of Agriculture, Conservation, and Forestry Facilitates IPM Statewide

By Kathy Murray, IPM Program Coordinator (Retired)
Maine Department of Agriculture, Conservation, and Forestry

The Maine Department of Agriculture, Conservation, and Forestry's (DACF's) Integrated Pest Management (IPM) Program provides leadership and expertise to support and promote IPM policies and practices—both on the farm and across Maine's communities.

Through partnerships and collaborations, part-time support, and student interns, the Maine DACF IPM Program offers programs and services ranging from policy development and educational programming to answering calls from the general public about pest-related issues. Although the program engages in a wide variety of IPM activities, it focuses on three major areas: schools, agriculture/horticulture, and public health.

Schools

The Maine School IPM Program provides regular training and technical support for school staff at Maine's 700-plus K–12 schools through regular workshops, webinars, newsletters, and educational materials such as guidance documents and fact sheets.

This program has been successful due in large part to grant awards from the U.S. EPA and the Northeastern IPM Center, with additional support from the Maine Board of Pesticides Control and several universities and non-profit organizations.

Visit www.maine.gov/schoolipm for more information.

Agriculture and Horticulture

Housed within the Maine Bureau of Agriculture's Animal and Plant Health Division, the DACF IPM Program supports the state's agricultural and horticultural industries through annual workshops and periodic technical support.

Public Health

Public health IPM activities include mosquito monitoring for Maine's public health arbovirus surveillance program, as well as educational programming and support for land managers, pest control professionals, public agencies, and the general public dealing with rodents, flies, bed bugs, ticks, stinging insects, and other health-impacting pests.

Further Reading

For more information about the Maine DACF IPM Program, visit www.maine.gov/ipm.

Kathy Murray using giant cockroaches to engage youth and families in learning about integrated pest management. Photo provided by Kathy Murray.

About the Author

For more than 22 years, Kathy Murray led the Maine DACF IPM Program, where she was given wide latitude to develop programs and initiatives to address IPM needs across the state.

Murray performed needs-assessment surveys, obtained funding, developed programs, and coordinated activities with partners and collaborators. She led the development of the Maine School IPM Program to support IPM adoption in all of Maine's public and private K–12 schools.

Murray also worked with other state agencies to develop an IPM plan for prevention and management of pests in and around all capital-area properties owned and leased by the State of Maine. She worked with the DACF team to provide training opportunities for growers and gardeners, property managers, teachers, public health officials, and pest management professionals.

"The wide variety of audiences and activities addressed by the DACF IPM Program keeps things interesting," says Murray. "We strove to help Maine safeguard people and the environment from the potential risks of pests and pesticides through adoption of IPM practices."

Murray was one of the winners of the Northeastern IPM Center's *Outstanding Achievements in Integrated Pest Management Award* for 2020. The annual award recognizes individuals or organizations whose work on IPM in the Northeast deserves special recognition, with a goal of honoring one professional (or organization) and one student each year. Nominations come from peers whose work relates to IPM in various capacities. Each winner receives $500 and agrees to provide a story and/or host a webinar for the Center.

Since her retirement at the end of April 2021, Murray has enjoyed more time for hiking, camping, and gardening with her husband, Leon, as well as occasional visits with their two adult daughters. The prolonged browntail moth outbreak is affording them the opportunity to practice IPM in their own backyard orchard and woodlot.

Passing of Larry Gut, BMSB Project Co-director

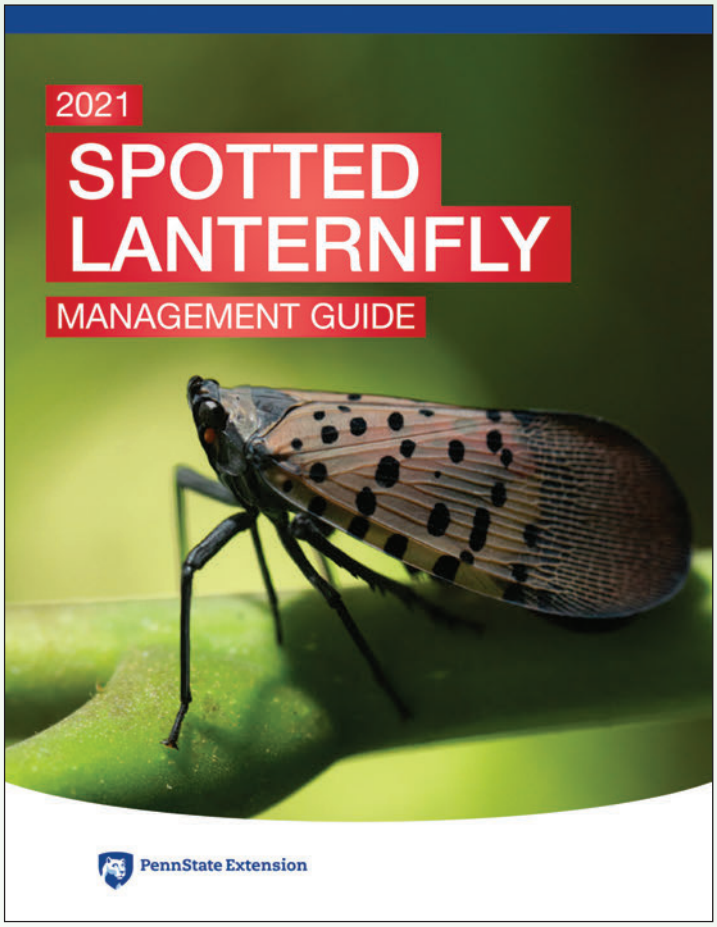
The Northeastern IPM Center joins the rest of the brown marmorated stink bug (BMSB) specialty crop research initiative (SCRI) project team in acknowledging the passing of Larry Gut on September 6, 2021.

Larry was a professor of entomology at Michigan State University and one of the regional co-directors for the BMSB SCRI project, leading the program in the Great Lakes Region since 2016. He was a world authority on integrated pest management of tree fruits, especially in the area of mating disruption.

Both in and outside his profession, Larry left an indelible mark and will be missed. Family and friends, as well as colleagues past and present, join in mourning his passing but also celebrating his life.

Peter McGhee, a stakeholder advisory panel member for the BMSB project and former graduate student of Larry's, wrote a tribute that eloquently honored Larry and his enduring legacy: neipmc.org/go/kRKy.

Penn State Extension Releases Spotted Lanternfly Management Guide



The first North American detection of the spotted lanternfly (SLF) was in Pennsylvania in 2014. Although the pest has continued to spread to other states in the Northeast and beyond since then, Pennsylvania remains ground zero for many of the efforts to combat the invader, with Penn State playing a lead role in partnership with the Northeastern IPM Center and other organizations and institutions throughout the region.

Penn State Extension recently published an SLF management guide. This comprehensive resource covers a broad array of topics related to SLF, including: "identification and life cycle; quarantine and distribution; host range, phenology, and damage; and management."

Given that SLF is both a serious agricultural pest and a nuisance in residential settings—and that it spreads so effectively with unwitting help from humans—stopping SLF requires a coordinated effort from an engaged populace, and these resources may be of interest and value to anybody throughout the growing affected area. (See the regularly updated distribution map at www.stopslf.org/where-is-slf/slf-map/.)

The management guide is available as both a web page and a downloadable PDF at extension.psu.edu/spotted-lanternfly-management-guide.

Land Acknowledgment for Cornell University Campus

Northeastern IPM Center joins host institution in acknowledging use of traditional Indigenous homelands, history of dispossession

The Northeastern IPM Center is based at Cornell University, an Ivy League institution with a global footprint but headquartered in Ithaca, New York—a small city in the largely rural Finger Lakes Region that constitutes the geographic heart of the state.

Cornell as it exists today was made possible by the Morrill Land Grant Act of 1862. The university was chartered in 1865 and is "the largest recipient of appropriated Indigenous land from the Morrill Act and the institution that accrued the greatest financial benefit from that land." (Learn more at landgrant.cornell.edu.)

The enormous societal benefits yielded by the creation of Cornell and similar institutions came at an immeasurable involuntary cost to the Indigenous peoples who had previously called the granted lands home.

Cornell has sought to reckon with the duality of its history and recently adopted a land-acknowledgment statement. As beneficiaries of the university's presence and existence, the Center echoes and affirms the ideas and sentiments therein:

Cornell University is located on the traditional homelands of the Gayogo̱hó:nǫ' (the Cayuga Nation). The Gayogo̱hó:nǫ' are members of the Haudenosaunee Confederacy, an alliance of six sovereign Nations with a historic and contemporary presence on this land. The Confederacy precedes the establishment of Cornell University, New York state, and the United States of America. We acknowledge the painful history of Gayogo̱hó:nǫ' dispossession, and honor the ongoing connection of Gayogo̱hó:nǫ' people, past and present, to these lands and waters.

This land acknowledgment has been reviewed and approved by the traditional Gayogo̱hó:nǫ' leadership.

Read more at news.cornell.edu/stories/2021/05/cornell-shares-land-acknowledgement.

Credits

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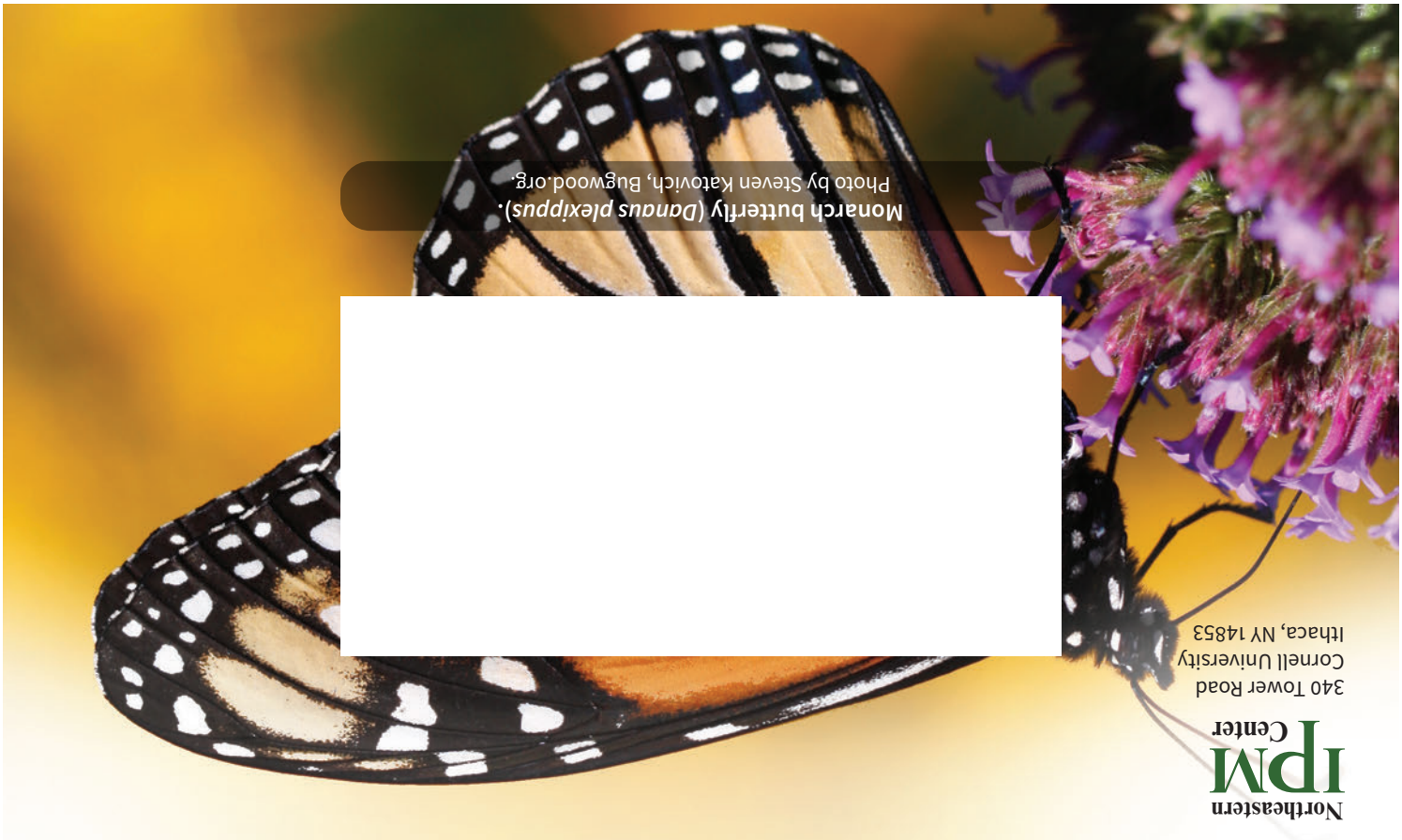

Monarch butterfly (*Danaus plexippus*). Photo by Steven Katovich, Bugwood.org.

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