



Northeastern IPM Center Impacts



www.NortheastIPM.org

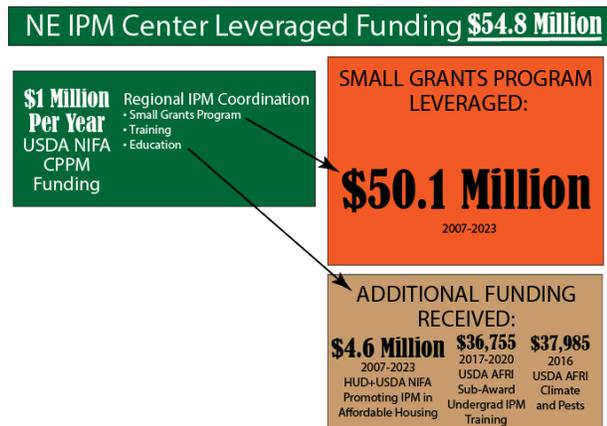
Author: David Lane - Cornell University

THE NEED

- **Essential Pest Management:** Effective pest management is critical for human health, food safety, and crop protection.
- **Food Security is National Security:** Addressing pest threats collectively diminishes risks to food security, a critical component of national security.
- **Human Health at Risk in Affordable Housing:** Pest infestations in affordable housing heighten health risks, fostering pathogen transmission and exacerbating asthma rates.

THE APPROACH

- **Regional Integrated Pest Management (IPM) Coordination:** The Northeastern IPM Center champions the development and adoption of IPM, the science of managing pests while protecting people, the environment, and economy. We engage broadly with stakeholders to identify and address regional pest priorities in agriculture, communities, and natural areas by seeding cutting edge research and funding Extension and other educational efforts.



IMPACTS

Strategic Leveraging: Through our Partnership Grants program, project directors have leveraged funding at an impressive ratio of 1:10 from 2007 through 2023. This strategic leveraging magnifies the impact of our investments, driving innovation in IPM.

Seed Funding for Breakthroughs: Our annual small grants program, Partnership Grants, provides crucial seed funding to researchers, educators, and practitioners, catalyzing groundbreaking discoveries and fostering collaboration. For example:

- **2007 - Honey Bees:** A modest grant of \$8,000 addressing Colony Collapse Disorder sparked remarkable collaboration, resulting in an additional \$6,545,000 from various granting agencies. This leveraged funding ratio of 1:807 highlights the transformative power of our investments; in this case by saving honey and honey bees, which are critically important pollinators.
- **2009 - Schools:** With 4 small grants totaling \$94,985 the Northeast School IPM Working Group (NESIWG) has leveraged \$245,100. The NESIWG includes broad representation of organizations and agencies serving schools throughout the NE. “The Business Case for School IPM” (Chambers et al. 2011) cites cases from actual school districts, showing **annual cost savings from IPM adoption ranging from \$1,000 to \$32,000 and estimated savings of hundreds of thousands of dollars per district.** The NESIWG helped lead to a school nurse IPM program, “Engaging School Nurses as Key Change Agents to Promote IPM Adoption in Northeast Schools,” which has **reached over 1.2 million people.**

This work is supported by Crop Protection and Pest Management Program (CPPM) grant numbers 2022-70006-38004, 2018-70006-28882, and 2014-70006-22484 from the [National Institute of Food and Agriculture](http://www.nifa.usda.gov), U.S. Department of Agriculture (USDA). Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture. The Northeastern IPM Center is one of four [Regional IPM Centers](http://www.nifa.usda.gov).

- **2015 - Ticks:** Responding to the urgent need for black-legged tick IPM, our \$45,860 investment led to a \$10 million grant from the CDC in 2017, with a leveraged funding ratio of 1:218. Data gathered from the project provided new and much-needed insights into the effects of climate change on arthropod vectors of disease and the impact of landscape practices on residential tick management.
- **2018 - Spotted Lanternfly:** Our proactive response to the Spotted Lanternfly invasion with a grant of \$9,995 paved the way for a \$7.3 million grant in 2021 from the USDA-SCRI, demonstrating a leveraged funding ratio of 1:730. This research is critical to NE wine and grape production.
- **2021 - High Tunnel Greenhouses:** A \$49,798 investment in researching the efficacy of entomopathogenic nematodes (EPNs) in high tunnels resulted in an additional \$3.7 million from other sources. 57% of participants in the project workshops said they would use biocontrols for cutworms in high tunnels to increase profitability. For example, one tomato farmer lost more than 50% of their tomato transplants due to cutworms. We estimate that a 50% loss over just 2 weeks of production time equates to about \$22,500 lost to cutworm injury (estimating 5000 lbs tomatoes/tunnel/week and a retail price of \$4.50/lb). This does not consider the additional labor and supplies that were required to replant but this loss would more than justify a pre-emptive application of EPNs at a maximum cost of \$100/tunnel.

Enhancing Health and Well-being

- **Addressing Housing Pest Challenges:** Affordable housing often faces disproportionately high rates of pest infestations, posing risks to residents' health and well-being. Through our StopPests in Housing program, launched in 2007, we promote the implementation of IPM in affordable housing. The program trained over 160 HUD-assisted housing sites in person, with additional outreach through online resources. This initiative, funded by HUD, totaling \$4.6 million from 2007 through 2023, ensures safer and more effective pest control practices, making homes healthier and safer for vulnerable populations.

Empowering Stakeholders:

Dissemination of IPM knowledge empowers stakeholders, fostering sustainable pest management practices and promoting collaboration and innovation.

For more impact information: See neipmc.org/go/impacts and [Annual Reports](#).

In summary, continued support for the Northeastern IPM Center and the Regional IPM Centers is not merely an investment in pest management; it is an investment in resilience, sustainability, and prosperity for the Northeastern region and the nation.

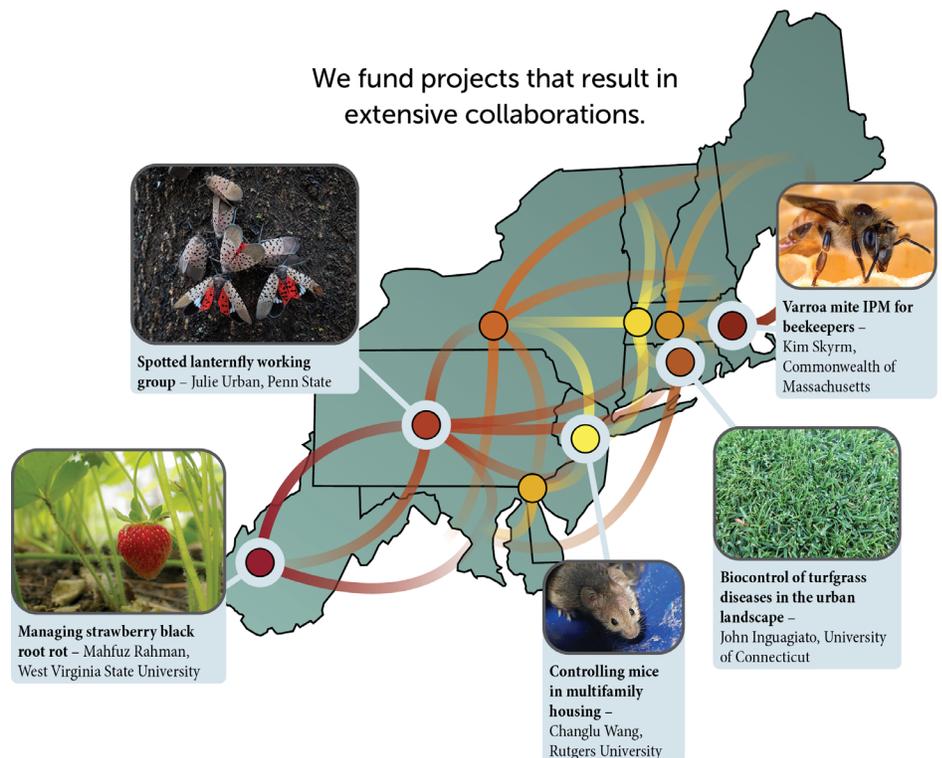


Photo credits: spotted lanternfly – Lance Cheung, USDA (flic.kr/p/28e2Jcs); strawberry – Lise Vanasse (flic.kr/p/VvXmnf); mouse – liesvanrompaey, (flic.kr/p/6szMfw); grass – New York State IPM Program (flic.kr/p/iB9219); varroa mite on honey bee – Scott Bauer, USDA Agricultural Research Service, Bugwood.org.

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