

COORDINATING PEST MANAGEMENT IN THE NORTHEASTERN U.S.

Integrated pest management (IPM) combines different strategies—such as modifying habitats, releasing natural predators, growing resistant crop varieties, and using pesticides—to provide pest control. IPM is especially important as pests develop resistance to certain tactics and stakeholders raise concerns about the environmental and human health risks of chemical pesticides. Because IPM does not rely on a single tactic, it is typically more sustainable, cost-effective, socially acceptable, and safer than conventional pest control.

In the northeastern U.S., a wide variety of insects, weeds, and other pests damage crops, upset ecosystems, or threaten human health and comfort. Each state in the Northeast has an IPM coordinator and at least one land-grant university that conducts research and extension programs focused on IPM.

Since 1996, northeastern states have joined forces—along with representatives from the U.S. Department of Agriculture and Environmental Protection Agency—to coordinate integrated pest management efforts in the region.

This multistate committee facilitates communication among IPM programs at northeastern land-grant universities, helping researchers and Extension educators stay current on emerging pest issues, program needs, and stakeholder needs. Discussion also supports consensus on best practices. With members in each state, findings and recommendations can be shared widely.

The committee provides leadership and guides, plans, and promotes coordinated research and Extension in the region. Over the years, the committee has established multistate, multidisciplinary working groups to develop comprehensive management plans for a variety of pests. Coordination distributes the workload and avoids redundant efforts. By expanding access to field sites, laboratories, funding, personnel, and other resources, the multistate committee overcomes the limited capacity of any one land-grant university or state.

The committee builds relationships with other entities, including IPM committees in other regions, national IPM programs, the EPA, and USDA to learn from others, understand funding processes and opportunities, coordinate efforts, and more.

This committee also provides oversight and evaluation of state IPM programs. The committee monitors the impacts of pests in each state—and the impacts of the strategies used to manage them--and regularly reports the accomplishments of state programs to other regional and national entities.

[NEERA1604: Northeast Region Technical Committee on Integrated Pest Management](#) is supported in part by the Hatch Multistate Research Fund through the USDA National Institute of Food and Agriculture and by grants to project members at participating institutions: University of Connecticut, Cornell University, Cornell Cooperative Extension, University of Delaware, Maine Cooperative Extension, University of Maryland, University of Massachusetts, University of New Hampshire, Pennsylvania State University, University of Rhode Island, Rutgers University, University of Vermont, and West Virginia University. **Learn more:** bit.ly/NEERA1604

The Multistate Research Fund Impacts Program communicates the importance and value of Hatch Multistate research projects. **Learn more:** mrfimpacts.org



INTEGRATED PEST MANAGEMENT HIGHLIGHTS BY STATE

CONNECTICUT

90% of growers participating in the 2020 Vegetable & Small Fruit Conference said they learned something that would help their business.

Invasive plant educational activities reached over **9,153 people** in over **50 Connecticut towns**, including residents and municipal and agency staff in 2021.

The UConn Native Plants and Pollinators Conference showed **391 people** (including grounds managers, landscape professionals, town conservation commission members, educators, master gardeners, and government officials) how IPM can protect essential pollinators.

23 students learned about IPM in a recent online Vegetable Production Certificate course.

DELAWARE

University of Delaware and Delaware State University co-hosted IPM demonstrations for **high tunnels**.

Researchers coordinated with experts in Maryland and Virginia to host **5 herbicide resistance workshops**.

MAINE

IPM programs reached **underserved audiences**, including Somali farmers, Native American tribes, and the state's Amish population.

Maine growers estimated that the **apple** IPM program reduced pest damage losses by **32%** and led to increases in yield and quality worth **\$6.3 million**. IPM also cut production costs by **\$406 per acre** on average.

As a result of the **sweet corn** IPM program, farmers make at **3 fewer insecticide applications** on more than **3,000 acres** each season.

In 2020, the **potato** IPM program had benefits worth an estimated **\$10.6 million** for Maine growers.

Berry growers who followed recommended spray intervals were able to prevent **fruit fly** infestations and maintain good berry quality for the 2020 season.

750 clients contacted the diagnostic lab for help handling tick-related issues; the lab tested **1,000+ ticks** for Lyme disease.

MARYLAND

Research on native parasites of **brown marmorated stink bugs** will guide long-term management.

Research helped **urban planners** and **nursery growers** select **trees** resistant to pests.

University of Maryland leads a network evaluating **corn earworm** resistance to pesticides. Trials in **23 states** and across **Canada** showed that Cry toxins are **80-90% less effective** than when first commercialized, but Vip3A toxin still provides near **100% control**.

MASSACHUSETTS

Researchers led a network of experts in **4 states** that worked with growers to implement IPM in **brassicas**.

Research led to registration of a new herbicide for **cranberry**.

Extension educators created a **Spanish** webpage with IPM information for vegetable growers.

Growers who adopted recommended strategies for **apple maggot fly** had at least a **70% reduction** in insecticide applications.

NEW HAMPSHIRE

IPM webinars reached new clients in previously **underserved groups**, including women, parents of young children, geographically isolated farmers, and farmers with day jobs.

NEW YORK

New York State IPM (NYSIPM) maintains the **Network for Environment and Weather Applications**, which delivered pest, disease, and weather forecasts to locations in **28 states**. Growers using the forecasts report saving nearly **\$19,500 per year** by reducing pesticide sprays and **\$264,000 per year** by preventing crop loss.

The "Don't Get Ticked New York" **tick** education campaign reaches **over 5,000** students, teachers, health professionals, and forestry and farm workers each year and is now offered in **Spanish**.

NYSIPM hosts the **IPM Image Galley**, which has over **5,000 pictures and videos** along with identification information and links to educational materials.

NYSIPM addressed issues related to new invasive species, including **spotted lanternfly**, **Asian longhorn tick**, and **box tree moth**. For example, they trained **Latinx vineyard workers** to identify spotted lanternfly egg masses during pruning season.

Since early 2021, over **1,200 people** have learned practical IPM information through NYSIPM's virtual series "What's Bugging You First Friday" (developed in response to **COVID-19**). Some events are in **Spanish**.

PENNSYLVANIA

Research led companies to amend **12 insecticide labels** to include **spotted lanternfly** control.

Extension educators revised an IPM manual for **schools** and advised and trained **childcare staff**.

Researchers collaborated with experts in other states to guide **New England schools** regarding the use of disinfectants to prevent the spread of **COVID-19**.

Researchers guided the implementation of a change to state **Medicare/Medicaid** benefits that provides reimbursement for pest eradication services for **disabled adults**. The program has successfully eradicated pests in **108 homes** so far.

Studies showed that organic pest management is most sustainable for Pennsylvania **beekeepers** and offers economic gains **twice as high** as conventional systems.

RHODE ISLAND

Winter moth monitoring has led to **fewer pesticide applications** on fruit farms compared to recent years.

VERMONT

95% of farmers participating in the dry bean scouting program learned how to better identify pests.

Bean farmers reported **fewer issues with diseases** when they submitted seed for quality testing prior to planting. Farmers also reported **increased access to markets** because they had seed quality test results.

59% of growers participating in the 2021 Vermont Tree Fruit Growers Association annual meeting are likely to adopt **at least one new IPM practice** and **69%** are likely to use pesticides more safely.

After completing a course on IPM, **100% of home gardeners** who participated plan to reduce pesticide use in order to protect **pollinators**.

WEST VIRGINIA

Approximately **300 acres** of **apples** are currently carrying out the Tree Fruit IPM plan.

High tunnel and **greenhouse** growers using recommended beneficial insects saw **significant increases in pest control**.

Bred **2 tomato varieties** with increased pest resistance and distributed **2,500 seed packets**.