Protecting American Agriculture from Pests, Safely and Effectively

Agriculture is the vital American industry.

That point was driven home in 2020 by empty store shelves, rationed quantities of staples like flour and eggs, and panic buying of food. Before COVID-19, food rationing hadn’t happened in the United States since World War II, and for Americans experiencing it for the first time it was a decidedly disquieting experience.

COVID-19 also made two realities very clear: American agriculture is absolutely vital, and American agriculture is uncomfortably fragile.

While the immediate COVID-19-related market disruptions were short-lived, the U.S. agricultural industry faces constant threats from other diseases, insects and invasive plants, including pathogens that infect livestock and can mutate to become dangerous diseases in people. A key way to reduce that vulnerability is to improve the ability of farmers, ranchers and land managers to manage pests safely and effectively using a science-based approach known as integrated pest management or IPM.

Integrated pest management strengthens American agriculture by creating new ways to manage pest challenges, including those exacerbated by our changing climate or increasing resistance to pesticides. The scientists working in integrated pest management create safer, smarter and more sustainable ways to manage pests than just spraying chemical pesticides. These IPM tools build resilience into American agriculture and the economies of our rural communities.

America’s Regional Integrated Pest Management Centers promote IPM science to protect farms, families, forests, homes and businesses from insects, plant diseases, weeds and wildlife pests. By helping create safer alternatives to manage pests, the Centers also help protect America’s most vulnerable environments and communities from the overuse of pesticides.

How IPM Works

Integrated pest management uses all available options for controlling pests effectively and economically while minimizing risks to people and the environment. As the name implies, it integrates a variety of tactics throughout the growing season to protect crops.
Growers trained in IPM plant crop varieties that have natural resistance to common diseases rather than repeatedly spraying fungicides. They conserve beneficial insects on their land to control the pest insects that damage their crops. They rotate crops, clean equipment between fields, use mating-disruption products to keep pest numbers down and use selective, low-risk pesticides when necessary. They make dozens of interlinked decisions throughout the year to economically prevent or control insects, weeds and diseases on their farms.

Integrated pest management is used in conventional and organic agriculture and in natural areas like parks, forests and rangeland. IPM approaches are used in private homes and public housing and schools and office buildings. Promoting IPM has been a federal priority since 1972, and some states and communities require IPM be used to safely prevent and control pests in public spaces.

The Regional IPM Centers
The Regional Integrated Pest Management Centers connect federal, state and local IPM programs, helping each succeed by coordinating, informing and amplifying their individual efforts.

Located in the Northeast, South, West and North Central regions of the country, the Centers identify regional priorities, promote collaboration across states and agencies, and connect people with the resources they need to manage pests safely. The Centers champion the unique needs of their regions and communities, bringing local concerns to the federal level. They communicate successes and best practices, identify emerging issues and ongoing needs, and make sure information is shared so it benefits the American people.

The Regional Integrated Pest Management Centers show how science can benefit the economy and environment simultaneously. Funded by the U.S. Department of Agriculture's National Institute of Food and Agriculture, the Centers are an excellent example of how a modest federal investment can make a significant impact at the state and local level. Learn more at the Regional IPM Center nearest you.

- The Centers fund pest-management research to develop more effective and safer ways to prevent and control pests in agriculture, natural areas and communities.
- The Centers fund outreach and education to teach farmers, land managers, housing authorities and other pest managers these new techniques to manage pests safely and effectively.
- The Centers fund research into the critical pest challenges facing the country like invasive species, pesticide resistance, pollinator protection and climate change.
- The Centers protect vulnerable communities and rural areas by creating effective alternatives to chemical pesticides.
- The Centers communicate across interconnected networks share information, minimize duplication and maximize efficiency and coordination.

Regional IPM Centers

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