

Annual Report of Pennsylvania Integrated Pest Management (PAIPM) Program
September 2017

PAIPM is a collaboration between Penn State University and Pennsylvania Department of Agriculture. The following is a brief report of activities funded or partially funded by USDA/NIFA/EIP funds. There are many other IPM activities in Pennsylvania that are managed independent of EIP.

Field Crops

- We continued to run Pennsylvania's black cutworm trapping network. We collaborate with about 20 county educators to establish a network of approximately 25 traps per year that span PA. The data generated by this trapping network establish when significant populations of black cutworm moths arrive in particular counties and initiate phenology models to predict when growers in those areas can expect this pest in their fields and relate it to the associated cutting of corn seedlings. This monitoring information has had great potential to decrease reliance on insecticides because applications are likely only needed if substantial moth populations are detected and then growers will know to scout their fields and apply rescue treatments only if local caterpillar populations exceed economic thresholds. Rescue treatments versus prophylactic treatments are clearly the most economical and effective way to control black cutworms.
- We also managed the Pennsylvania Soybean Scouting network, which is another collaborative effort with Penn State county-based extension educators. We scouted about 20 "typical" soybean fields across Pennsylvania and share with growers what pests (insects and diseases) that we found and the severity of the populations. It is our intent that our notifications will encourage farmers to visit their own fields to determine what pest species are active and to see that fields do not typically contain economically damaging populations of insect pests. In six years of scouting, only one of our fields has needed an insecticide or fungicide application.
- We continue to provide growers information on the lack of value of neonicotinoid seed treatments in most Pennsylvania corn and soybean fields. Our research data clearly support this stance and we continue to message to growers on this hot topic.

Vegetable IPM:

- As part of the first year of a USDA/NRCS funded 2-year grant project for mentoring York County's Amish sweet corn growers in the use of IPM, we have successfully trained the first 2 farms to use the beneficial wasp *Trichogramma ostrinae* for control of European corn borer and *Trichogramma* spp. for corn earworm. This biological control program has allowed the growers to eliminate most of their insecticide applications.

Christmas Tree IPM:

- This year, 14 editions of the PA Christmas tree pest scouting report were published and emailed to 417 subscribers from the Mid-Atlantic, who consist of Christmas tree growers, nursery operators, tree care professionals, extension educators and nursery

inspectors. The report shares regional growing degree day totals, timely pest activity updates and life cycle and management information for conifer pests of concern.

Urban IPM-Philadelphia Programs

To provide outreach, education, and training to the general public and non-agricultural entities on IPM for non-agricultural pests and their associated health and environmental concerns.

Building public support for IPM

- Attend 12+ public events and Health Fairs, etc. organized by our partners (e.g., Philadelphia Department of Public Health (PDPH), Children's Hospital of Philadelphia (CHOP), childcare providers etc.)
- Insect identification and control recommendations for general public, pest management professionals, schools, etc. – 24+
- Presentations and technical assistance to Neighborhood Advisory Councils and other neighborhood groups (10+)
- We (along with others in the Philadelphia County Extension office) have consulted with Philadelphia City Council members regarding pollinators and other beneficials as part of a project that included construction of a neighborhood grocery store.
- We continue to partner with staff in the US EPA, Region III offices - pesticide programs and healthy schools.

Housing

- Healthy Homes program partner with National Nurse-led Care Consortium (NNCC) and the Pennsylvania Department of Health (PA DoH), providing training (16 contact hours) for community health workers (CHW) and technical assistance
- Bed bugs remain the primary pest concern; providing free monthly 1.5 hr workshops on Bed Bug Basics (8-20 participants each); provide in-service training to social service agencies, childcare providers, schools, etc. (24+); continuing advocacy for City policy
- Continue to work/lead the Philadelphians Against Bed Bugs (PhABB) group to help Philadelphia enact a city bed bug policy. We are partnering with: city council members, social service and health agencies, housing advocates, lawyers, behavioral health professionals, and others.
- Participation in the Philadelphia Hoarding Task Force; 1 hr training; technical assistance
- Technical assistance to housing rehabilitation programs, including Rebuilding Together Philadelphia (RTP), the Energy Coordinating Agency (ECA) a weatherization assistance program NAC's

Schools

- Pennsylvania Green & Healthy Schools Partnership - a statewide partnership that works to educate and promote green & healthy schools initiatives (such as the PA Enviro-thon) and school and programs. Some members include: Women for a Healthy Environment,

Green Allies, PA DoH, PA DEP, PA DoE, Moms Clean Air Force, PA Intermediate Units, US DoE, US EPA, Region III, School District of Philadelphia

Public health

- Refer concerns from residents about inappropriate use of pesticides to the Pennsylvania Department of Agriculture (PDA) Pesticide Program for possible enforcement (3+)
- Coordinate with the PDPH Vector Control; provided 6 hr of training to inspectors/technicians
- Presented at Pennsylvania State University's (PSU) Pest Managers Schools (2x, ~50 each)

Asthma

- Asthma is epidemic in Philadelphia children (~30% of children enrolled in the School District of Philadelphia (SDP) and is a PA IPM program priority.
- Partnership with the CHOP Community Asthma Prevention Project (CAPP), providing training for CHW (8 hr +) and technical assistance, including indoor environmental trigger home assessments for CAPP patients
- Ongoing partnership with the SDP Asthma Management and Sustainability Committees
- Ongoing participation in the Pennsylvania Asthma Partnership (PAP)
- Support from the PA DoH to provide training and technical support to schools

Childcare

- Participation in the Interagency Childcare Coordination Committee (IC3), convened by the PDPH to coordinate policy and services available to Philadelphia childcare providers; quarterly meetings
- Participation in four Early Head Start programs Health Services Advisory Committees (HSAC); quarterly meetings
- In-service trainings for childcare providers: indoor environmental health; bed bugs; IPM (8+)
- Continuing work with PSU's BKC,
- PQAS, Foster Parent training

Other activities

- Schools – SDP, PAGHS, ALA – Dauphin, Perry, Alleghany, individual schools (TPS, CVCA...)
- Regional policy – DVRPC, PDPH Climate Change Advisory Committee, EPA R3
- National policy – SCOP, Stop Pests in Housing Advisory Board

Wide Area Monitoring

- Some activities mentioned under Field Crops
- Participate in cucurbit powdery mildew network
- Participate in Late Blight network
- Participate in IPIPE

Tree Fruit

- Advise USDA/NRCS about conservation payments for IPM practices and pollinator protection
- Developed Integrated Pest and Pollinator concept, which integrates pollinator health into IPM decision making.
- Developed IPM section of Pennsylvania Tree Fruit Production Guide 400pp.