

## School IPM Outreach and Research Activities, NYS IPM Program, 2017

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**Abstract:** NYS schools need assistance in reducing risks to children and others from both pests and the overuse of pesticides. In 2017, NYS IPM Program activities have resulted in school personnel becoming better informed and able to implement IPM in their school districts. Managing geese on school grounds was the focus of a demonstration project and associated outreach. A school IPM assessment tool was developed and began to be piloted. A phone survey of BOCES health & safety officers is providing input into school IPM outreach and implementation. The NYS IPM Program made several blogs and tweets throughout the year with IPM stories of relevance to the state's schools and childcare facilities. NYS IPM Program staff made visits to several schools trouble shooting specific pest-related situations, collaborated with Cornell faculty on research of relevance to school IPM, and were involved in statewide, regional, and national collaborations involving school IPM outreach.

**Background and Justification:** Pest management in schools has received increased attention in New York State and nation-wide. This is due to the critical need to decrease pesticide use to protect our children, who, by nature of their size and developmental stage, are at greater risk than adults. Yet, at the same time, we cannot compromise the quality of pest control because pests represent an equally important health hazard. Schools are especially challenging to manage because they include such varied settings as classrooms, cafeterias, laboratories, auditoriums, theaters, playing fields, playgrounds, and gardens. These areas are heavily used for a variety of purposes, including after-hours public meetings. Visitors, staff, and students are frequently in direct contact with the lawns, athletic fields, flowers, trees, playgrounds, and buildings on the school grounds. The New York State (NYS) pesticide notification law and "Safe Playing Fields" act have resulted in additional pressure on schools to reduce pesticide use. There is a concerted nationwide effort to have verifiable IPM in all of the country's schools.

**Geese on School Grounds:** Geese were the only school pest situation that substantially increased in the 2013 statewide survey compared to the 2001 survey <https://ecommons.cornell.edu/bitstream/handle/1813/43853/pest-mgmt-schools-NYSIPM.pdf?sequence=1&isAllowed=y>. In November, 2014, the Rochester CSD, contacted the NYS IPM Program about a long term goose problem at a high school

athletic field complex. We made a site visit, interacting with the district and school groundskeepers and athletic directors. We worked with the district to hold a goose on school grounds seminar at school on February 20, 2015. Upon request from DCMO BOCES, a similar seminar was held in Norwich, NY on March 13, 2015 and another one was organized with Questar III BOCES in Rensselaer Co. on August 4, 2015. Participants indicated that they plan to implement managing turf with geese in mind (including planting fescue), a variety of hazing techniques, exclusion along shorelines and retention ponds, and round ups. Suzanne Wheatcraft, retired senior H&S official with the RCSD, and I successfully applied for a NYS Community IPM grant to address the goose situation at the school. A suburban school district joined us in this project. School personnel have been trying various harassment techniques. Technique efficacy is not the only important aspect. The technique must also fit into the desires and workday of school staff. The suburban district preferred using a radio-controlled model truck while the city school favored an air dancer. We have begun developing community collaboration in the vicinity of the high school to address limiting goose production. We made a presentation (April 6) to residents of Unity Village, a nearby senior living facility with nesting geese. We made several good contacts with commercial/manufacturing properties near the school. Building upon this project, Paul Curtis, Cornell's Department of Natural Resources, applied for and received a CIPM grant for managing geese in Ithaca urban areas. We published a fact sheet (<https://ecommons.cornell.edu/handle/1813/44456>) based on our project. This fact sheet has been tweeted by the IPM Institute & Wyoming, and sent to 608 schools by the University of Oregon. In late April and early June 2016, we visited an urban wetland that probably contains the largest number of unmanaged geese in the immediate vicinity of the city high school. Hatching was occurring so the window of opportunity for dealing with those nests has largely closed for the spring. We wrote and distributed a follow-up letter to the landowners that we contacted, thanking them for their interest and promising to be in touch. We loaned the hazing equipment to Kathy Murray, State of Maine, for display and demonstration in a workshop of school athletic turf management. We presented a poster paper on the project to the annual meeting of The Wildlife Society in October 2016 and the Cornell CCE agricultural in-service in November 2017. An updated version of the poster will be presented at the 9<sup>th</sup> International IPM Symposium in March 2018. In December 2016, we contacted property owners concerning oiling eggs in the spring and reminded them of the need to register with the USFWS on-line after the new year begins. We oiled eggs during the spring, and very few broods were subsequently observed, especially compared to 2016. However, at least some geese were still present on the school's athletic fields during the autumn although the district did not receive any complaints.

**School IPM Assessment:** NYS IPM staff are developing a School IPM Assessment Tool with the objective of using selected measures (metrics) that would allow assessors to obtain a good picture of a district's pest management program within a limited timeframe. A secondary use would be on-line self-assessment by schools. The eight metric categories are:

- 1) *Written and effective policies and protocols regarding pest management and pesticide use and storage with an emphasis on least hazardous approaches.*
- 2) *Appropriate food storage practices*
- 3) *Appropriate trash and garbage management protocols*
- 4) *Systematic and regular building maintenance (pest exclusion) protocols*

- 5) *Effective monitor use in major food service areas*
- 6) *Effective system for reporting pest sightings.*
- 7) *Accessible and comprehensive recordkeeping.*
- 8) *Maintenance of athletic fields with cultural practices.*

In 2017, we piloted the assessment at an urban elementary school and district-wide in another city. Although further refinement and piloting is needed, our current evaluation points toward the tool being best suited for a district-wide assessment while a different approach is desirable for an individual school building.

**Statewide School IPM Committee:** The NYS IPM Program organized a Statewide School IPM Committee in 2002. The fifteenth meeting of the committee was held in October 2017 in Rensselaer, NY. Participants were from Cornell University, state Department of Environmental Conservation, state department of health, state education department, NYS Teachers Association, school districts, BOCES districts, and industry. In addition to the always-appreciated round-table sharing, including updates on school IPM nationally and regionally, we had a special presentation by Cornell graduate student, Max Helmberger, on his research using entopathogenic nematodes to control grubs in school athletic fields. We also visited an area school for a “walk-through” to discuss what an IPM assessment would entail on-site.

**Northeast School IPM Working Group:** A NYS IPM Program staff member serves as co-leader of this multistate group. In 2017, we held bi-monthly conference calls sharing updates on school IPM related activities in our respective states and organizations. On behalf of the NE School IPM Working Group, a member from Maine received a grant from the NE IPM Center for outreach to school nurses, and NYS IPM staff participated in the implementation of this project.

**School IPM Workshops & Webinars:** NYS IPM staff worked with 3 BOCES districts in organizing a school IPM workshop in each district: April 6 (Otsego-Northern Catskills), May 12 (Oneida-Herkimer-Madison), and May 24 (Champlain Valley Educational Services, via webex). Additionally, working with Cornell’s Jenny Kao-Kniffen, two “IPM for Safe Playing Fields” workshops were held on June 27 (Putman Co.) and August 3 (Greene Co.). We also partnered with the School Facilities Management Institute of the NYS School Facilities Managers Association to hold 2 state-wide webinars: “Geese on School Grounds” (March 30) and “It’s Not Your Job Alone” (September 12).

<b>Date</b>	<b>Location (County)</b>	<b>Conference/Meeting Name</b>	<b>Presentation Title</b>	<b>Contact Hours</b>
3/30/2017	Webinar	SFMI webinar series	Geese on School Grounds	46
4/6/2017	Oneonta (Otsego)	Pest Management for Today’s Schools	Tenets of School IPM	9.5
4/6/2017	Oneonta (Otsego)	Pest Management for Today’s Schools	Structural Pest Management	28.5
4/7/2017	Oneonta (Otsego)	Pest Management for Today’s Schools	Wildlife Problems on School Grounds	14.25

4/7/2017	Oneonta (Otsego)	Workshop	Pest Management for Today's Schools	28.5
4/12/2017	Delmar (Albany)	Elsmere Elementary Earth Day	Ticks	52.5
5/12/2017	New Hartford (Oneida)	Pest Management for Today's Schools	Tenets of School IPM	10
5/12/2017	New Hartford (Oneida)	Pest Management for Today's Schools	Structural Pest Management	30
5/12/2017	New Hartford (Oneida)	Pest Management for Today's Schools	Walk-Through Exercise	15
5/12/2017	New Hartford (Oneida)	Workshop	Pest Management for Today's Schools	42.75
5/16/2017	Delmar (Albany)	Meeting	Tick Assessment and Education	5
5/22/2017	Delmar (Albany)	Meeting	Tick Assessment and Education	5
5/23/2017	Webinar	School IPM Webinar Series	Managing Stinging Insects of School Grounds; NYS Case Studies	130.5
5/23/2017	Delmar (Albany)	Meeting	Tick Assessment and Education	6
5/25/2017	Plattsburgh (Clinton)	CVES BOCES school facilities managers	School IPM	8.25
6/6/2017	Glenmont (Albany)	Presentation	Keep Ticks Away	20
6/27/2017	Mahopac (Putnam)	Presentation	Tick IPM	17.5
7/14/2017	Guilderland (Albany)	Docent Training	Ticks – Avoiding the Bite	35
8/1/2017	Guilderland (Albany)	Docent Training + Public	Ticks – Avoiding the Bite	31
8/10/2017	Glastonbury, CT	CT School IPM Meeting	Tick IPM	75
8/23/2017	Fulton (Montgomery)	School Health Professional Meeting	Bed Bug Awareness	16
9/12/2017	Webinar	SFMI webinar series	It's not your job alone	12.5
10/21/2017	Albany (Albany)	NYSUT SRP Leadership Conference	Keeping Critters out of the Workplace	20
10/24/2017	Auburn/Cayuga	Auburn CSD Health & Safety Committee meeting	School IPM	10
11/8/2017	Utica (Oneida)	MVEIE	School IPM	16
11/16/2017	Rochester (Monroe)	Turf & Grounds Expo	Sports Turf and Schools Communication Panel Discussion (Moderated)	21.7
			<b>TOTAL</b>	706.45

**NYS School IPM Blog and Twitter:** In 2014, NYS IPM staff initiated a blog and twitter account with IPM stories of relevance to the state's schools and childcare facilities. <http://blogs.cornell.edu/schoolchildcareipm/>. Through Twitter, [@NYSchoolIPM](https://twitter.com/NYSchoolIPM), we expanded contact with statewide and nation-wide school, childcare, and health professionals. During 2017, blog entries included school crafts & sanitation, school nurses & IPM, raccoons, mice, wild parsnip, sports field management, geese, NYS DOH's Green, Clean, & Healthy Schools project, and US EPA's school IPM webinar series.

**BOCES Health & Safety Staff Survey:** In 2014, NYS IPM staff began surveying, by phone, BOCES health & safety officers on their perceptions of the pest management related needs of the state's schools. The survey consists of 9 questions developed in consultation with our Community IPM team. To date, 22 BOCES districts, about 65% of the total, have been surveyed (major gap is the North Country). The results will be used

to provide input into our future school IPM outreach. Immediate results of the surveying have included developing outreach workshops with Wayne-Finger Lakes BOCES, Cayuga-Onondaga BOCES, and Orange-Ulster BOCES. Other highlights, to date, include that schools need assistance in turf and grounds management. Most have concerns about the “Child Safe Playing Field Act” but not the Neighbor Notification Law. The development of cooperative bids for pest management or landscape services is a good idea, as is hosting webinars.

**Site Visits:** NYS IPM Program staff made several visits in 2017 to schools trouble shooting specific pest-related situations. These included visits to the Auburn City School District concerning mice and fleas at 2 different schools, the Red Creek school district to make recommendations on a goose problem, the Bethlehem School District to scout for and make recommendations on ticks.

On the request of Fred Koelbel, a longtime collaborator, NYS IPM staff performed two tick inspections at school properties in Port Jefferson, NY. Parents are worried that kids are picking up ticks on the school grounds and athletic fields. We determined, through dragging, that mainly the athletic fields are free of ticks, but the woodlined edges are a higher risk area. This school also has walking trails and wooded areas where ticks were found. Fred is advising the school community to avoid field edges and wooded areas to avoid ticks.

**Other Outreach:** NYS IPM staff members collaborated with Jenny Kao-Kniffen, Cornell University’s Horticulture Department, with her USDA-NIFA-CPPM funded project, “Overseeding to Enhance IPM for School, Community, and Athletic Fields.” Working on 50 school and community playing fields in New York, Maine, and Connecticut, the purpose of the project is to implement and evaluate the efficacy of repetitive overseeding on school and community playing fields as a safe, cost-effective means of weed control and reducing field compaction without the use of pesticides. Repetitive seeding of perennial ryegrass onto existing turfgrass fields in the Fall of 2015 and Spring of 2016 resulted in a significant overall decline in weed abundance and higher grass density, when examining all 50 playing fields across three states (New York, Connecticut, and Maine). Regional and individual site differences may have influenced the efficacy of the repetitive overseeding strategy, but the overall trend indicated that the method is effective in managing weed populations without the use of herbicides. In 2017, two full day workshops highlighted the latest information on providing safe playing surfaces on sports fields. Topics included the basics (fertility, irrigation, mowing); advance techniques (overseeding, seed selection, and turf repair); and pest prevention, identification and management. More details on the workshops are in the “workshops and webinars” section of this report.

Biological Pest Control on School Athletic Fields: Kyle Wickings (Entomology, Cornell) is implementing a project to apply NY-native beneficial nematodes (targeting grubs) to school playing fields and to assess their survival in these fields. Teachers and students at participating schools will participate in the data collection, and training workshops will be offered to participating teachers to help them incorporate this data collection into their science classrooms. During 2017, NYS IPM staff assisted Kyle Wickings in developing educational materials, planning teacher recruitment and teacher training workshops to be conducted in 2018, and recruiting pilot locations.

NYS IPM Program staff participated in meetings, organized by the NYS Department of Health, of the Statewide School Environmental Health Program Steering Committee. The goal of this project is to promote sustainability and networking in promotion of

school environmental health in NYS. A subcommittee, within which the NYS IPM Program had a key role, developed the *NYS Clean, Green, and Healthy Schools*, a recognition program for schools. We are assisting in the recruitment of schools to pilot the program.

NYS IPM Program staff collaborated with members of the National School IPM Steering Committee in the promotion of school IPM implementation nationwide  
[http://www.ipminstitute.org/school\\_ipm\\_2020/steering\\_committee.htm](http://www.ipminstitute.org/school_ipm_2020/steering_committee.htm) .