

## **School IPM Outreach and Research Activities, NYS IPM Program, 2006**

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**Cooperators:** Gary Couch, Jennifer Grant, Brian Eshenaur, NYS IPM Program. Rose Baglia, Cornell Cooperative Extension of Orange County. Rick Harper, Cornell Cooperative Extension of Westchester County. Julie Seghrouchni, Cornell Cooperative Extension of Nassau County. Tamson Yeh, Cornell Cooperative Extension of Suffolk County. Amy Ivy, Cornell Cooperative Extension of Clinton County. Kevin Trotta, North Rockland Central School District. Dan Dickerson and Michael Siciliano, New York City Board of Education. Debra Eichholtz, Onondaga-Cortland-Madison BOCES. Julie Shoemaker, Jefferson-Lewis BOCES. Following school districts: Jamesville-DeWitt, Minisink Valley, Monroe-Woodbury, New York City, Scarsdale, Seafood, South Huntington.

**Locations:** Clinton, Jefferson, Nassau, Onondaga, Orange, Suffolk, and Westchester Counties and New York City

**Abstract:** Integrated pest management in schools is needed to reduce risks to children and others from both pests and the overuse of pesticides. The NYS IPM Program was involved in several extension and applied research activities at schools in 2006. In the lower Hudson River Valley, we continued with a "learning community" approach. Three school districts are working with extension and school peers to assist each other in the development of model IPM programs. Following up with a cockroach IPM plan and demonstration in 2005, a training program was held at South Huntington UFSD for facilities workers that added the category of 7A "structural and rodent" to their pesticide applicator licenses. These facilities workers then became an in-house pest management team that assumed the responsibility for future cockroach and other pest management. In New York City, the Director of Pest Control requested an IPM STAR evaluation from the IPM Institute. The NYS IPM program has been closely involved with NYC schools for many years, and helped in 2006 by conducting the pre-evaluation using IPM STAR standards. NYS IPM then helped conduct the official IPM STAR evaluation. We participated in a nation-wide group preparing a USDA-funded Pest Management Strategic Plan for school IPM and started the development of outreach efforts to small, rural school districts in the Adirondacks. NYS IPM Program staff organized a meeting of the Statewide School IPM Committee and interacted with numerous school districts and others about school IPM via presentations and site visits.

**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. Recent passage of a New York State (NYS) pesticide notification law has resulted in additional pressure on schools to reduce pesticide use.

**Learning Community Project:** Great strides have been made by NYS school pest managers within the past decade in reducing risks associated with “conventional” pest control. However, much work needs to be done. Persistent challenges to IPM programs in schools include the need for written pest management policies, classroom sanitation, pest proofing buildings, and heavy use of facilities. School pest managers stress the need to improve communication concerning safe and effective pest control with their diverse constituencies, from school administrators to community sports programs. At least 30% of NYS public school districts are applying pesticides in school buildings and on school grounds on a regular, prescheduled basis – a practice that is antithetical to IPM.

School decision-makers often look to other schools for insights on successful programs. This underlines the importance of establishing model IPM programs at schools. Even schools that are practicing IPM need assistance to further develop their programs. With this project, we are utilizing a “learning community” of school district personnel, peer mentors, and cooperative extension educators to develop four district-level model school IPM programs.

The geographical target region for the project is the lower Hudson River Valley immediately north of New York City. This region was chosen because of the high human population density, strong community concerns about pesticide use, and the availability of extension IPM specialists and peer mentors to help facilitate the project.

The project is funded by a Northeast IPM Partnership Grant and has the following objectives.

- 1) Organize the “learning community” team that will develop the three model programs.
- 2) Utilize the IPM Institute’s “IPM Standards for Schools” to assess the current status of the pest management programs of the cooperating schools.
- 3) Develop and pursue individualized IPM improvement plans via collaborative interaction among the three cooperating school districts, extension IPM specialists, and peer mentors. The goal will be qualification for the IPM Institute’s STAR school certification.
- 4) Evaluate the success of the cooperating districts’ IPM development plans.
- 5) Communicate the results of the three model programs locally, statewide, and throughout the Northeast.

In 2004, we organized the “learning community” team, established a listserv for the team, and conducted the initial assessment of the four school districts. The team includes NYS IPM Program staff (Lynn Braband, Gary Couch, Jody Gangloff-Kaufmann), Cornell Cooperative Extension staff from Orange County (Rose Baglia) and Westchester County (Rick Harper), two “peer mentors” (Dan Dickerson, New York City Board of Education, and Kevin Trotta, North Rockland School District), and three schools districts (Minisink Valley, Monroe-Woodbury, and Scarsdale).

Comprehensive, day-long on-site assessments were made of the pest management programs of the three cooperating school districts. The IPM Institute’s format associated with their STAR certification program was utilized as the guide for these assessments. The school districts have been implementing their IPM improvement plans. These plans are based, to a large extent, on the results of the initial assessments.

Using the IPM Institute’s STAR certification audit form, the school districts were reassessed in April 2006. Since the focus was on areas highlighted by the initial

assessment, these audits only took a half-day per district. Letters summarizing the results of the assessments were sent to each school district. The entire team then met to discuss the results and the over-all success of the project.

Specific IPM-related improvements during the project in the cooperating school districts included policy development, staff training, monitoring, naturalization of “odd” areas of grounds, soil testing, turf health practices, record-keeping, and pest-proofing buildings. One district (Monroe-Woodbury) was recommended to the IPM Institute for STAR certification and was awarded certification in September 2006. The school cooperators expressed appreciation for the team evaluations of their districts’ pest management program. They felt that such audits would be valuable to other districts even if funds were not available for follow-up visits after the audits. With remaining funds from the grant, the NYS IPM Program arranged two audits during November 2006 in school districts in other regions (Nassau and Onondaga Counties) of the state.

In 2006, the school districts hosted a demonstration workshop highlighting IPM-related improvements to the districts’ athletic fields. The workshop was marketed to school districts throughout the lower Hudson River Valley via the NYS Department of Education, county Cornell Cooperative Extension offices, and chapters of the NYS Superintendents of School Buildings and Grounds Association. The workshop lasted a half-day (morning) and was held in the Monroe-Woodbury district. The basic concepts of IPM in schools were reviewed. Our learning community model and STAR certification were explained. Power point presentations described grounds improvements at the Minisink Valley and Scarsdale districts. The workshop participants then had guided tours of Monroe-Woodbury district to discuss IPM-related projects on their grounds.

Thirty-seven individuals attended the workshop. In addition to eleven team members and one person each from the NE IPM Center and the NYS Department of Environmental Conservation, there were 24 other participants (20 from 12 school districts throughout the lower Hudson River Valley, 3 from private industry, and 1 from extension). Ten of these 24 turned in evaluation forms. Three specifically indicated that the workshop was very good. Three particularly liked the field tour. Two indicated they wanted food and/or coffee at the half-day workshop. One each indicated that he/she wished there had been more information on irrigation, regulations, proper mowing, pest control, and grass species. Four individuals left contact information indicating interest in being involved in future “learning community” teams.

A free-lance writer was contracted to write and submit two articles and a press release on the project. Articles were written and submitted to the trade journals *Turf* and *The School Administrator*. *Turf* accepted the article, which was printed in its July 2006 issue. The submission to *The School Administrator* was not accepted. As of August 2006, the writer is rewriting the article to submit to another trade journal, probably a structural pest control industry publication. The project director will be sending articles on the project to the newsletter editors of several NYS schools and pest management organizations. The press release went out in June 2006. In addition to Cornell University outlets, it has appeared on the IPM Institute’s web site and the electronic newsletter of the trade journal *Pest Control*.

There was a strong consensus by the project’s participants on the value of the team approach to assisting schools in their IPM programs. One challenge to expanding to a statewide or region-wide system of “learning communities” is the provision of funds for key players as local extension educators and “peer mentors”. While the project’s listserv

provided for interaction (although not as much as the project director had hoped) among the team and additional discussions occurred between various members, periodic face-to-face meetings of the entire team were important in moving the project forward. A current need is to effectively communicate to school administrators and community groups (as youth sports programs) the need for their cooperation for effective IPM programs on school properties especially athletic fields.

**Cockroach IPM Demonstration:** In late spring of 2005 the Facilities Director of South Huntington Unified School District contacted the IPM Program about an infestation of cockroaches at two of the district's schools. Throughout much of 2005, NYS IPM Program staff worked intensively with the district to bring the problems under control. In 2006, school district employees, who are certified NY State pesticide applicators, were trained to take over the cockroach and other structural IPM program.

NYS IPM Program staff developed an outline for a 12 hour Category 7A course to be offered only to the grounds staff of South Huntington UFSD and submitted it to the DEC for approval of recertification credit hours. The training materials were tailored to follow the Category 7A training manual using examples of demonstration work that had been done over the years at SH UFSD. Many of the examples focused on the recent cockroach IPM demonstration from 2005, but also included other pest problems. The course was conducted over four weeks in June of 2006.

As a result of interaction and cooperation between NYS IPM and the South Huntington UFSD, five school grounds employees are now qualified to assume the work of managing indoor and structural pests within their school facilities. These workers were enthusiastic and skilled grounds managers. They readily took the 12 hour course and were very interested in becoming certified in Category 7A. Most of the materials covered in their training focused on IPM. The applicators have adopted and are using IPM tools, such as baiting for ants and cockroaches, sealing up entryways, and making sanitation recommendations to the custodial staff for such pests. The South Huntington school community is positively affected by the facilities employees' willingness to adopt IPM and reduce pests and risks of pesticide exposure. The district may see significant savings by utilizing an already available resource, their own employees, as an in-house pest control team. Previously, problems were addressed on an as-needed basis by hiring a contractor to solve individual problems. If these facilities employees continue to use IPM and build their skills, South Huntington can be used to demonstrate successful school IPM. A follow up visit to South Huntington schools will be conducted in 2007 to assess the continuing practice of IPM.

NOTE: A Category 7A Power Point presentation that focuses on South Huntington's specific pest problems was developed. This is available to anyone.

**New York City Schools:** NYS IPM Program staff began helping New York City Schools regain IPM STAR Certification, lost after a new City administration made significant changes in the way services were obtained. Recommendations were made for IPM improvements for many schools in NY City throughout 2006. Materials were reviewed that were developed for record keeping and training. A lengthy consultation on July 12, helped NYC prepare for the official IPM STAR evaluation. On August 14, Tom Greene of the IPM Institute of North America visited NYC schools and, together with NYS IPM and the NYC Department of Health and Mental Hygiene staff, the evaluation was conducted at three schools in Queens, NY.

The Director of Pest Control in the NYC schools is an adamant supporter of IPM in schools and has persistently tried to restore the practice of IPM in the citywide school district, despite a lack of support from administration. The Director has interacted with NYS IPM on a frequent and regular basis to learn the basics of IPM, as his previous experience was in food service. He has requested that NYS IPM review materials, such as the newly implemented citywide log book system, where each school facility will record pest complaints and responses in one centralized book. The idea of the logbook came directly from NYS IPM recommendations. Additionally, the pre-evaluation for IPM STAR certification helped the Director prepare for the official visit and evaluation by Tom Greene. As a result of these interactions, NYC schools have begun the installation of door sweeps in every school where they are identified as problematic. A childcare program room at one high school was infested with mice during the evaluation, and this problem was quickly solved. With support from NYS IPM, the New York City school IPM program has been revived. At one point it seemed that the city's in-house IPM program was under threat of elimination. Since then, fewer schools have gone out to private contractors, and more facilities have been influenced by the Director's enthusiasm and successful implementation of fundamental IPM tools and practices.

**School IPM Pest Management Strategic Plan:** In October 26, NYS IPM Program staff participated in a by-invitation-only meeting to develop a national Pest Management Strategic Plan for school IPM. This USDA-funded effort is drawing on school and pest management expertise from across the nation and will serve as a guiding framework for the implementation of IPM in all of the nation's schools by 2015.

**General Outreach:** The NYS IPM Program organized a Statewide School IPM Committee in 2002. In October 2006, we held a fifth meeting of the committee. In addition to the diverse membership updating each other on their school IPM activities, we worked on refining suggestions for the NYS Education Department's proposed High Performance Schools guidelines for facilities and had a special presentation by Tom Green of the IPM Institute on the STAR school IPM certification program. NYS IPM Program staff also presented to the Committee a list of desired impacts of school IPM outreach in NYS.

NYS IPM Program staff visited South Huntington Schools (Countrywood Elementary School) to inspect the playground for wasps. This playground was made of wooden logs and was scheduled to be torn down and replaced with new plastic materials. This will eliminate recurring problems with wasps and bees on the playground.

Small, rural school districts in NYS (especially in the Adirondacks) are an underserved audience in terms of school IPM outreach. In the 2006, we partnered with Adirondack-region Cornell Cooperative Extension associations and Board of Cooperative Educational Services districts to develop two workshops targeting this audience. The workshops will be held in the spring of 2007.

Throughout 2006, NYS IPM Program staff made presentations on school IPM related topics. Audiences included landscapers, school facilities staff, pest control operators, and academic and extension educators.

In September 2003, we initiated IPM curricula development projects. During 2006, these efforts continued and are described in a separate report. In 2007, the NYS IPM Program staff will be working with the Ithaca school district to build collaborative teams of school facilities staff, teachers, and students to address specific pest management challenges.