



Spreading perennial rye seed in high traffic areas helps maintain healthy sports fields.

Kevin Tronta

How schools are using green pest management alternatives

by John Razzano

Many school systems across the state are emphasizing alternative management methods for keeping bugs, weeds, mice and other pest problems out of cafeterias and off playing fields. In Nassau County, under the watchful eye of their teacher, first graders at Lakeville Elementary sweep up crumbs after a classroom snack that might otherwise attract insects and mice. In Rockland County, the North Rockland High field hockey team practices for a game as a groundskeeper carefully examines the sideline turf, deciding not to treat for grubs after counting only a few.

In both cases, the school systems involved are part of a growing movement that emphasizes managing pests with alternatives to pesticides. Working together with their school boards, administrators and staff, Great Neck School District on Long Island, North Rockland Central School District in the Hudson Highlands, and other school systems throughout the state are finding both people- and earth-

friendly ways of dealing with pest problems. They are at the forefront of a management approach known as integrated pest management (IPM), which started in the 1970s and emphasizes minimizing, or where possible, eliminating pesticide use. Using a wide array of both simple and sophisticated techniques, they are demonstrating that alternatives to pesticides can effectively prevent and control pest problems in even the most demanding situations.

Great Neck

Great Neck Central is a Long Island suburban district with around 8,000 students and faculty spread over five elementary, two middle and three high schools located on hundreds of acres of grounds. In 1986, the Great Neck School Board hired David Kincaid to be District Consultant for Health and Safety. Kincaid serves as a kind of health and safety czar. This is a high-level approach that gives him the authority to draft

district policy recommendations and, once approved by the school board, to follow through with action.

Once, when he was visiting his daughter's school, Kincaid noticed contractors were spraying to control insects.

Fields were mowed as needed rather than on a schedule, increasing turf density and blocking out weeds.

He could smell the insecticide as he walked the hall. "If I could smell insect spray, what were the kids breathing?" he asked. His first order of business was to end "spray first, ask questions later" contracts. Next, he hired an entomologist (bug specialist) who could provide a better understanding of the pests that needed to be managed. He began trying alternative methods, introducing an IPM pilot program in 1992.

After two successful years, the board of education voted in 1994 to adopt policies to use IPM methods and organic groundskeeping techniques that emphasize natural rather than synthetic

pest-management products. Each school now participates in a thorough inspection program to stop infestations before they happen. Maintenance staff learn to prevent infestations in school buildings by sealing cracks where insects

and rodents can enter, fixing leaks to remove sources of water, and cleaning up litter and food scraps that attract and feed pests. Synthetic fertilizers and chemical herbicides have been replaced with organic fertilizer, mechanical aeration, non-toxic pesticide products like corn gluten, and beneficial species of bacteria to fight weeds and grubs on school grounds.

Teachers adopted simple procedures for classrooms, like mopping up spills and sweeping up crumbs that attract insects. As teachers brought these sanitation rules back to their students, it wasn't long before the entire school was involved in

the program. "Education is essential," Kincaid said, "You are more likely to get people to do something differently if you can work within the system to persuade them that it's better. In the absence of such persuasion, most people don't think of their effect on the environment."

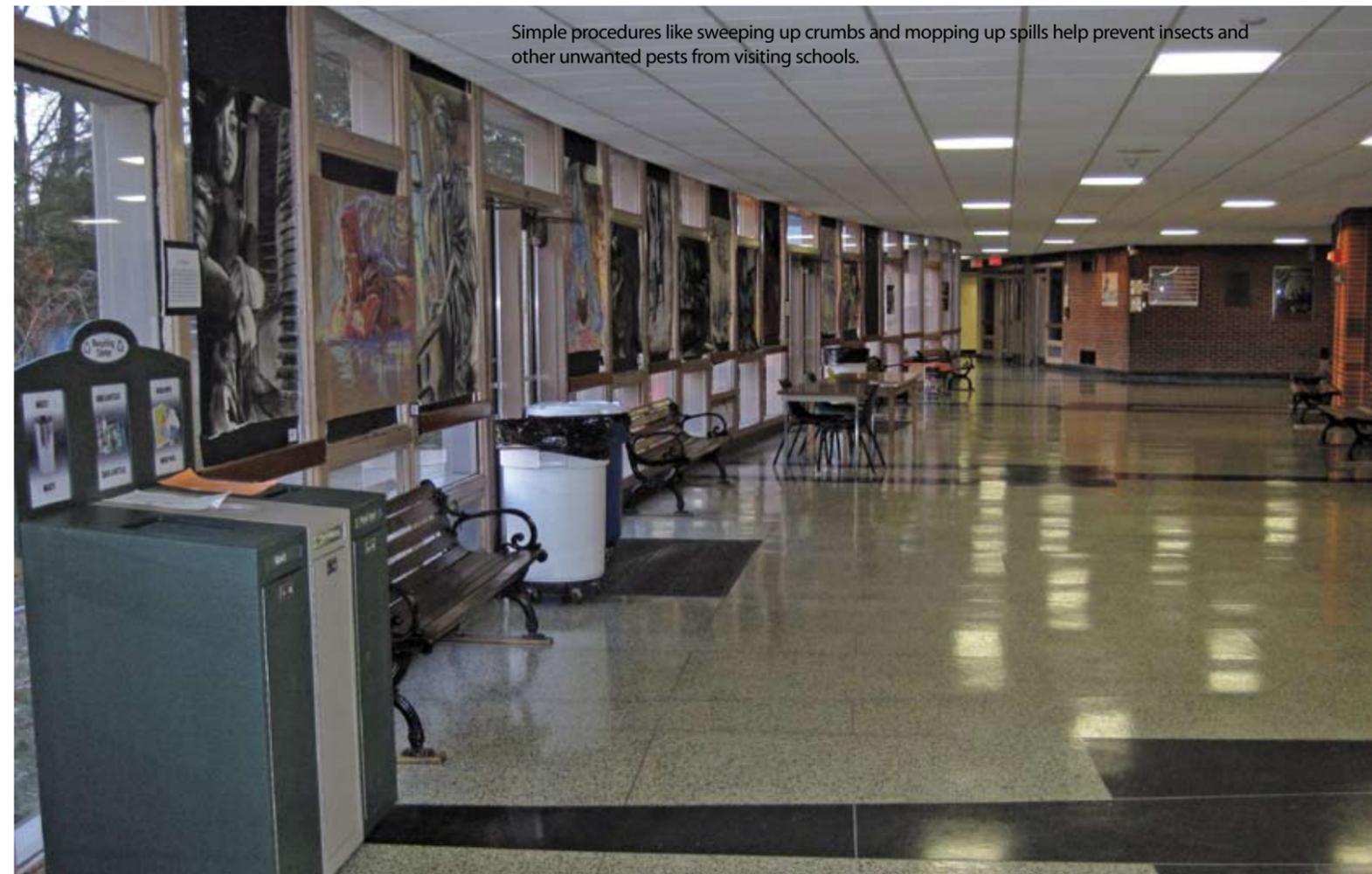
Since implementing IPM policies, pesticide spraying and fogging have been eliminated, and the district has far exceeded expectations for the program, all while holding the line on costs.

The Great Neck Breast Cancer Coalition recognized Kincaid in 2004 for "Dedication to Environmental Health." He is optimistic about the future. "Green consciousness is way ahead of where it was even five years ago," he said. "It's simple really. If you don't maintain a healthy school environment, you can't expect to have healthy children."

North Rockland

North Rockland Central is a suburban district in Rockland County with

David Kincaid



Simple procedures like sweeping up crumbs and mopping up spills help prevent insects and other unwanted pests from visiting schools.



Once Kevin Trotta began using greener techniques to prevent grub infestation, North Rockland's school athletic fields grew stronger and healthier.

Kevin Trotta

a high school, five elementary and three middle schools. Students and faculty combined number more than 9,000. Athletic fields take up more than 60 of the 325 acres of district grounds, and the surrounding communities of Haverstraw and Stony Point take their school sports very seriously.

More than 20 years ago, the district was struggling to maintain safe conditions on its playing fields. Conditions were at times downright dangerous for student athletes, who risked injuries from tripping on bare spots caused by intensive wear and infestations of insects and weeds. Field-maintenance staff would simply treat the symptoms, replacing damaged sod and using pesticides to control infestations. Despite their best intentions, the same problems would return year after year.

Then in the late '80s, the district hired Kevin Trotta as its head groundskeeper. Trotta calls himself an environmentalist who grows grass. A veritable "physician of the fescues" (tufted grasses), he combines a passion for sports with a desire to

find environmentally sustainable solutions to turf-grass problems. Describing his approach to pest problems, he said, "A doctor who prescribes only drugs to treat illness has his priorities backwards. He should be asking himself, 'How can I increase my patient's resistance to disease in the first place?' It's the same with pes-

Alternatives to pesticides can effectively prevent and control pest problems in even the most demanding situations.

ticides. Before you even consider using one, you should try to strengthen the grass so it can resist pests naturally."

With strong backing from district administration, Trotta proposed an IPM program for the district's athletic fields, but many in the community were skeptical that alternative pest-management methods would be effective. Gradually, results won them over. "You have to adjust everyone's expectations," he explained. "Community pride in your athletic fields is wonderful, but major league stadium standards are neither sustainable nor realistic at this level. Perfection comes at a high cost—ecologically as well as financially."

Trotta and his team of 14 other groundskeepers analyzed soil chemistry and adjusted its pH with lime to buffer acidity. The right grass seed for a north-eastern climate with good disease and drought resistance was selected. Fields were mowed as needed rather than on a schedule, increasing turf density and

blocking out weeds. Clippings were mulched back into the turf, providing natural fertilizer as they decayed. Grubs were carefully monitored and pesticide treatments avoided if possible. As a result, the athletic fields now have vigorous turf with strong roots that resist both pests and the punishing demands of school sports.

The North Rockland Central School District was recognized for all their hard work, receiving the 2005 "Excellence in IPM" award from Cornell University's New York State IPM program. Trotta himself is a recognized leader in IPM, counting among his many awards the 2006



Parents: Stay Informed

State Education Law requires public notification of pesticide applications. Stay informed of school pesticide use by looking for the following Section 409-h notification requirements:

- At the beginning of each school year, written notice regarding pesticide applications that may take place at the school must be given to all parents, guardians and staff. This notice must include information on how to register to receive advance notification at least 48 hours before each application, as well as the name of the person at the school to contact for more information.
- Schools must maintain an advance notification registry. Written notice to those on the advance notification registry must be sent at least 48 hours prior to pesticide application.
- A written summary of any pesticide applications that have been made must be provided at three specific times during the school year.

"President's Award for Leadership" from the Sports Turf Managers Association.

Higher Ed Also Goes Green

K-through-12 school systems aren't the only educational institutions seeking greener ways to manage pests. At the University of Rochester in western New York, Pest Control Manager Peter Castronovo leads an award-winning Pest Control Unit. This university community of more than 25,000 also includes 740-bed Strong Memorial Hospital.

The Pest Control Unit has been using IPM since 1995 and won Cornell University's 2007 "Excellence in IPM" award for, among other things, reducing liquid pesticide use from 400 gallons in 1994 to only 13 gallons in 2007.

Commenting on the university's IPM program, Castronovo said, "Key to our success has been the support of our program by the second-in-command at the university. We have also recognized that, to be done properly, least-toxic methods require a greater investment in education and training." The university has been able to greatly reduce pesticide use while also reducing pest complaints

and increasing satisfaction with their service. They do it by maintaining high sanitation standards, keeping buildings tight, and thinking outside the box when resolving pest problems, like when the Pest Control Unit used insect traps baited with orange soda to keep yellow jackets away from crowds at an annual campus festival.

Sometimes all that's needed to develop an alternative pest management strategy is a little creative thinking and some collaboration. As Kevin Trotta continues to spread the word about greener pest-management alternatives at North Rockland, he strives to bring horticulturists and environmentalists together to recognize their shared objectives. He offered a small example, recalling his response to a landscaper friend who was complaining about tree huggers. Taken aback, he simply asked him, "In our business, if we're not tree huggers, what are we?"

John Razzano is a contributing editor with *Conservationist*.

For more info:

Check out the following websites to learn more about using green pest management alternatives in schools:

Links for Schools and Daycare Centers on Pest Management Alternatives, NYSDEC:

www.dec.ny.gov/chemical/41822.html

Pest Management Through Integrated Pest Management, NYS Office of General Services:

www.ogs.state.ny.us/purchase/snt/awardnotes/7101001510can.htm

Stinging Insect IPM for Schools and Lawn Care Without Pesticides, Cornell University:

www.nysipm.cornell.edu/grantspgm/projects/proj01/comm/braband3.asp
www.nysipm.cornell.edu/publications/lawn_care/files/Lawn_Care_without_Pesticides.pdf

Integrated Pest Management in Schools, U.S. Environmental Protection Agency:

www.epa.gov/pesticides/ipm

School IPM, University of Connecticut:

www.hort.uconn.edu/ipm/general/schoolipm/nonchem.htm

California School Integrated Pest Management Program: www.schoolipm.info