

## Synopsis of the School IPM Program at Iowa State University January 2004

- Pesticide Use survey conducted for all public schools March 2001. 245 districts returned completed instruments = 65.5% response. Specific survey results are available at the school IPM Web site:  
<http://www.ipm.iastate.edu/ipm/schoolipm/schoolsurvey03-2001.pdf>
- Urban Advisory Group convened May 2001 to discuss results of survey and framework for an integrated pest management program in schools. Participants represented Iowa Departments of Education, Public Health, and Agriculture & Land Stewardship, EPA Region 7, Iowa Pest Management Association, Iowa Turfgrass Institute, Iowa Environmental Council, and Iowa State University.
- All public schools (N= 374) were invited to participate in selection process for school IPM pilot program; 56 schools (15%) responded. Four schools selected to participate in pilot:
  - Davenport (Davenport, 17,065 students)
  - Lewis Central (Council Bluffs, 2743 students)
  - Sioux Central (Sioux Rapids; 597 students)
  - Woodward-Granger (Woodward, 652 students)
- Pilot program was started with a workshop at ISU on July 17, 2001. This workshop provided an overview to the program, IPM, and pesticide safety. Each district was provided with a set of videos from Texas A&M “ABC’s of School IPM”, pertinent EPA materials, and teacher lesson plans for grades K-12. Separate training sessions were done in each district from August 2001 – January 2002. Facility audits were conducted for each building participating in the program; the school IPM coordinator was provided the typed list of items needing improvement inside each structure and told these would be a part of a future assessment of implementation of IPM. The last formal training session for the pilot program was April 12, 2002, when a landscape IPM workshop was held in Ames for participating schools. The pilot program was funded by an Urban Initiatives grant from the EPA Region 7 through IDALS (\$64,300).
- One ongoing outcome of this program was establishing the *Integrated Pest Management for Schools* newsletter, IPM 70. As of December 2003, nine issues of this newsletter have been published and sent to all public and private schools in Iowa, and to school IPM workers across the United States. The on-line version of the newsletter can be accessed at:  
<http://school.ipm.iastate.edu>
- The impact of the pilot program efforts was assessed in three ways.
  - First, 35 persons completed pre- and post-training exams. On the basis of the average pre-training score (54%) and the average post-training score (72%), there was an overall improvement in understanding of IPM concepts after training. The small sample size did not indicate statistical significance.

- Second, exit surveys showed that 62% of respondents considered the training helpful and relevant to their job responsibilities. Most respondents thought the training enabled them to have a good-to-excellent understanding of pesticide safety (92%), IPM (95%), pest biology (76%), and pest control options (88%). Eighty-three percent considered the school IPM training above average-to-outstanding quality. Implementing IPM will result from a staff behavior change. Approximately 50% of respondents indicated they would read pesticide and disinfectant labels before using them, eliminate clutter in their workspace, and participate in community IPM efforts. Greater willingness to change was indicated for storing food correctly, identifying pests before management efforts, encouraging other staff to try IPM, and reducing pesticide use at work and at home (60–71%). This IPM pilot program in Iowa has laid the foundation upon which the other 370 public and 188 private school districts may proceed to solve their current and future pest problems.
- Third, one year following training, calls were made to each of the four pilot schools to request a follow up on implementation of school IPM. Only two districts responded; the other two indicated they did not want to be visited and showed no further interest in the program. The evaluation tool was based on the facility audit (50%) and IPM practices (50%).
  - Sioux Central School District was visited May 29, 2003; they scored 59%. It was discovered their pest control vendor was still only providing routine pesticide applications. Superintendent/IPM Coordinator Dr. Bonnie Meier found the results unacceptable and requested a revisit by ISU Extension in fall 2003. On September 5, 2003, ISU Extension returned to Sioux Central Schools and the IPM implementation appraisal scored 90%. The district had addressed 86% of facility audit concerns and had implemented 94% of IPM practices. The pest control vendor reassigned staff and began following IPM techniques as requested by the school. This district was awarded a small health education grant to purchase fly swatters for each staff member. Further, school staff had modified their attitudes concerning pest management, realizing that it was a team responsibility.
  - Davenport School District was visited July 16, 2003; they scored 61%. Operations Director/IPM Coordinator Donna Neppi Cooper was not satisfied with her school's performance of the evaluation and indicated she would be working toward compliance. No further responses have been received by Ms. Cooper.

- July 10, 2002, another overview workshop on school IPM was offered to public schools in Iowa. This workshop was funded by a grant from the Center for Health Effects of Environmental Contamination, University of Iowa (\$2500). There were 18 participating schools in the workshop. Heavy thunderstorms/rain prevented another 12 schools from participating; detailed information was sent to each of these schools with an invitation for follow-up discussions if desired.
- Cedar Rapids Public School District invited Dr. Shour to talk on school IPM at their annual custodial/maintenance worker in-service on March 28, 2003. There were approximately 145 persons in attendance.
- Work with the West Des Moines Public Schools began April 2002 with initial meetings about school IPM, progressed through several planning meetings, involved applying for and receiving a \$5000 grant from the EPA to conduct training, presented an overview of school IPM to administrators and operations personnel, conducted training sessions for custodial staff (August 2003) and participated in writing a RFP document for bidding IPM services. The school district also developed four color brochures on IPM for parents, teachers, administrators, nurses, and custodians.
- Work with Dubuque Public Schools was the result of a disgruntled parent with cockroach problems in one high school. The district contacted ISUE and asked for an overview presentation of school IPM for key personnel (January 2003). This was followed with two-day training sessions in March 2003 for these personnel and later in July 2003 for food service workers, custodians, and school nurses. A facility audit was conducted in July 2003 for one high school building; the district indicated they would conduct additional audits on their other buildings.
- Dr. Shour has been asked to present the results of the program in Iowa for the EPA Region 7 Pesticide Inspectors Annual Meeting, at the North Central Region Pesticide Certification & Training Workshop, at the 4<sup>th</sup> Integrated Pest Management Symposium, and at the national meeting of the Entomological Society of America.
- Dr. Shour received a Pesticide Environmental Stewardship Program grant (\$40,000) from the EPA Region 7 (through IDALS) to conduct the Midwest School IPM Workshop and to conduct a 2-year pilot landscape IPM program in 4 Iowa schools.