A. Grant Data

- Grant #: 8365
- Title: School IPM Leadership Training Program -- Developing a Learning Community
- Type: IWG Priority
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- State involved: New York
- Funding Years: June 2004 through June 2006
- Funding amount: $53,785

B. Summary

Children, because of their size and developmental stage, are more vulnerable to pesticides than adults. To protect them we must decrease pesticide use in schools. Yet we cannot compromise the quality of pest control because pests such as cockroaches and mice present equally important health hazards. Pest management in schools is challenging because of the variety of heavily used settings, including classrooms, cafeterias, auditoriums, and playing fields. A 2002 statewide survey revealed that many New York State schools want to adopt IPM but they need in-depth training, technical assistance, and on-going support.

Our long-term goal is to help all of the state's 703 school districts adopt IPM, protecting over 3 million students by reducing the risks posed by pests and pesticides. We've laid the foundation for this effort by working with over 150 schools. Now, the next step: developing a model school IPM program that can be replicated throughout the state (and later, the region) and training local leaders to guide IPM adoption in schools.

We'll begin with school buildings and grounds personnel in four school districts. As part of their intensive hands-on training, they, with their peer mentors and IPM trainers, will develop and refine the model. Each school will be alloted up to $6,000 to help implement its IPM plan. Their goal: become eligible for the national "IPM certified school" standard created by the IPM Institute of America. The level of risk reduction achieved by each school will be evaluated using this standard. Later, our IPM leaders will educate and mentor their peers.

C. Introduction

One of the strengths and challenges of IPM is its reliance on a site-specific strategy. Although this means that IPM is easily tailored to address the needs of schools with dramatically different circumstances, the approach requires knowledge of pests and their environments, familiarity with the many IPM tactics, and experience in developing and implementing an IPM plan, which requires the cooperation of the whole staff. To secure this cooperation, the school needs a leader who will educate, inspire, and guide others.

This two-year project based in the lower Hudson Valley will establish a network of such leaders, school buildings and grounds personnel, who are trained IPM practitioners and advocates. By working with a small local group, we hope to establish close relationships among our participants, so they will continue to support each other's IPM efforts long after the project ends. This "learning community" would include the participants, IPM trainers (NYS IPM Program staff and local Cooperative Extension educators), and peer mentors (two award-winning school pest managers from the downstate area).

The project director will reserve $6,000 for each school, to help defray the cost of implementing IPM (a major constraint to IPM adoption, according to our 2002 survey). Interviews at some of these schools in 2003 highlighted some of their major pest management concerns, such as the need for constituency outreach, improved sanitation, heavy use of athletic fields, and specific pests such as stinging insects, ants, mice, weeds, and geese. The IPM trainers' initial evaluation of the school's pest management practices will supply detailed information for the development of their IPM plans.

In addition to developing and implementing an IPM plan, some schools will volunteer to run IPM research and demonstration projects on topics most relevant to the group. Examples might include nontoxic management of stinging insects, cost-effective repairs that most effectively exclude rodents from buildings, or over-seeding as an alternative to herbicide applications on athletic fields.

D. Ojectives

Objective 1: Organize the "learning community" team that will develop the four model programs. Accomplished during the summer of 2004.

Objective 2: Utilize the IPM Institute's "IPM Standards for Schools" to assess the current status of the pest management programs of the cooperating schools. Accomplished during the autumn of 2004.

Objective 3: Develop and pursue individualized IPM improvement plans via collaborative interaction among the four cooperating school districts, extension IPM specialists, and peer mentors. The goal will be qualification for the IPM Institute's STAR school certification. As of August 2006, one school district has fulfilled all requirements of the project and was recommended to the IPM Institute for STAR certification. Two other districts are still working on aspects of the project. At least one of these districts will probably be recommended. The fourth district was dropped from the project.

Objective 4: Evaluate the success of the cooperating districts' IPM development plans. Largely accomplished during the spring of 2006. Two districts still working on a few aspects of the project.

Objective 5: Communicate the results of the four model programs locally, statewide, and throughout the Northeast. Initiated in spring of 2006 and continuing.

E. Approach

The goal is for the cooperating school districts to become eligible for the IPM Institute's STAR school IPM certification. Using the IPM Institute's on-site auditing procedures, the project's team will intensively evaluate the pest management policies and practices of the school districts. Based on the results of the audits and incorporating individual district desires, the cooperating districts will develop and submit IPM improvement plans. Via the project's listserv and one-on-one interaction, the project's team will collectively assist the cooperating districts in accomplishing their plans.

Toward the end of the two-year project, each school district will be reassessed using the IPM Institute's auditing procedure. The project team will then meet to discuss the results and over-all success of the project. One or more of the districts will host demonstration workshops highlighting aspects of IPM implementation. The NYS IPM Program will document the entire project as case studies for selected educational and pest management publications.

F. Progress

Objective 1: Organize the "learning community" team that will develop the four model programs.

Four school districts agreed to participate in the project. The districts are Minisink Valley, Monroe-Woodbury, New Paltz, and Scarsdale. Key personnel from the districts, NYS IPM Program staff, local county extension educators, peer mentors, and Tom Green from the IPM Institute met in June 2004. During this meeting, we reviewed the basic concepts and tenets of IPM in schools. Tom Green then described the IPM Institute's STAR certification program, and we discussed its role in our project. Finally we discussed the general process of the project, the school districts' needs and desires, and the scheduling of the initial assessments.

Objective 2: Utilize the IPM Institute's "IPM Standards for Schools" to assess the current status of the pest management programs of the cooperating schools.

The IPM Institute had recently developed a concise version of the "IPM Standards for Schools" for STAR certification audits. During October 2004, the project's assessment team (NYS IPM Program staff, extension educators, and peer mentors) visited the four cooperating school districts and using this audit format, conducted detailed assessments of the districts' pest management programs. The assessments took a full day per district rather than a half-day as originally planned. Several of the assessment team made follow-up visits to two of the school districts for further evaluation of athletic fields. Also, the districts' structural pest control contractors were interviewed by myself and one other

team member. Each district sent me a list of pesticides used within the past year. These were evaluated using a risk assessment database provided by the IPM Institute.

Each assessment team member filed with me an audit report for each school district. I consolidated and summarized these into one report for each district. These were sent to the appropriate district along with a cover letter highlighting strengths of the district's pest management program and major areas of suggested improvement.

Objective 3: Develop and pursue individualized IPM improvement plans via collaborative interaction among the four cooperating school districts, extension IPM specialists, and peer mentors. The goal will be qualification for the IPM Institute's STAR school certification.

A listserv was established to facilitate interaction among the project participants. The school districts were to develop and post pest management development plans by mid-January 2005. Two of the districts met this deadline.

In August 2005, the project team met for a mid-point evaluation of the project. The status of the school districts' pest management development plans were reported and discussed. Plans were made for the team to assist the districts as they continued to implement their plans. In addition to (and over lapping with) the individual details of each plan, the project team decided to focus on two major projects. Each project was to be highlighted by a workshop in the spring of 2006. One project focused on IPM-related improvements to athletic fields in the cooperating districts. The second project was to address classroom sanitation and incorporate teacher/student outreach via IPM curricula.

Just prior to the mid-point meeting, the project director dropped the New Paltz School District from the project. Serious conflicts between the district administration and the facilities department made achievement of the project's goals unlikely.

Objective 4: Evaluate the success of the cooperating districts' IPM development plans.

Using the IPM Institute's STAR certification audit form, the school districts were reassessed on April 11 and 12, 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. On April 26, the entire team met to discuss the results and the over-all success of the project.

On May 17, the project director compared Monroe-Woodbury's records of pesticides applied in the district from April 2005 through April 2006 to pesticides used in the year (2004) before the initial assessment. As of August 2006, Scarsdale has yet to provide similar information. At the time of the April audit, Minisink Valley was in the process of changing structural pest control contractors. During the fall of 2006, the project director will compare the records of pesticides applied in the district from April 2006 on to the pesticides recorded in the initial assessment.

The school districts were asked to each submit a report by the end of May describing, from their perspectives, what was accomplished during the project. As of August 2006, two districts (Monroe-Woodbury and Scarsdale) had submitted reports.

Plans were initiated with the Scarsdale district to develop the project addressing classroom sanitation and incorporating teacher/student outreach via IPM curricula. However, due to unforeseen changes in NYS IPM Program staffing, the project was unable to continue as planned. After consulting with Scarsdale and the Northeast IPM Center, the funds that were to support the project will be used for additional school IPM audits (see Results).

After soliciting feedback from the assessment team, the project director recommended to the IPM Institute that Monroe-Woodbury receive STAR certification. After Scarsdale's recent pesticide application records have been evaluated, it is anticipated that they will also be recommended. Minisink Valley has several recommendations from the assessments that have yet to be implemented. The project director will do a follow-up on-site audit during the fall of 2006 before a decision is made concerning STAR recommendation.

Objective 5: Communicate the results of the four model programs locally, statewide, and throughout the Northeast.

On May 17, 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.

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 off 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*.

G. Results

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 a second (Scarsdale) will probably also be recommended. 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 this Partnership grant, the NYS IPM Program will be arranging two or three audits this autumn in school districts in other regions of the state.

Thirty-seven individuals attended the May 17 workshop highlighting the project. 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.

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.

H. Impacts

1. *Innovations*
   The "learning community" approach involving team interaction over a substantial period of time was adapted from similar efforts in agriculture and forestry for use in promoting school IPM.

2. *Safeguarding human health and the environment*
   Pest management was improved at the cooperating school districts, and the results were communicated to other schools.

3. *Implementation of IPM*
   The cooperating school districts (especially Monroe-Woodbury and Scarsdale) implemented comprehensive changes in their pest management programs. Two or three additional audits will be conducted at other districts this autumn. An article describing the project's results was published in *Turf* magazine. Additional

articles will appear in a structural pest control trade journal and the newsletters of state school professional organizations.

4. *Enhanced collaborations*
   The team-centered approach of this project depended on effective collaborations. One of the strongest outcomes of the project was the value of the team audits of the school districts' pest management programs. Relationships that were established or reinforced by the project will probably continue.

I. Appendices

NOTE: Please do not use these without first discussing with project director.

- Poster paper given at a Cornell Cooperative Extension statewide conference.
- Manuscript of article that appeared in *Turf*.