

An innovative approach to implementing school IPM in Arizona

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Program Innovations

Innovative Implementation Tools

- A national "team" of IPM experts who offer practical IPM and Indoor Air Quality (IAQ) advice and programmatic guidance
- Pest management cost analysis for pre/post program intervention
- IPM/IAQ trainings and presentations for school staff (custodial, maintenance, kitchen, nurses and teachers)
- Monthly "Pest Press" publication - features urban pest or IPM/IAQ topic and provides tips on good IPM/IAQ practices for school-wide staff
- District recognition with awards



Infrastructure for diffusion: "Train the trainers"

- "IPM Specialist" title assigned to district-level staff or contracted pest management professional - functions as district educator on IPM/IAQ issues
- Annual two-day IPM/IAQ technical workshop for IPM Specialists
- Good IPM/IAQ practices are taught to be easily integrated into existing staff roles ("Do what you're doing now, just think pests")
- The IPM Specialist leads district-wide expansion using both standard and innovative tools

Intensive facilitation: "Handholding"

- Implementation is customized to fit the needs of the pilot school or district
- Guidance provided for districts in the process of contracting for IPM services
- District's pest management company is involved in trainings and program meetings

Evaluation methods

- Pest audits: initial, mid-term and annual inspections accompanied by a detailed report. Prioritize remediation and prevention items, IAQ hazards, and progress
- IPM STAR® Certification (IPM Institute of North America, Inc.)



Regional Expansion

- Media coverage advertises program and promotes children's environmental health awareness
- Partnerships with state agencies
- Districts employ peer-to-peer partnering (via the Arizona Children's Environmental Health Coalition)



Standard Tools



The University of Arizona's school IPM program uses standard school IPM implementation tools and incorporates innovations from the Monroe IPM Model (Lame, 2005) and the USEPA's Tools for Schools program. UA Urban IPM staff facilitate IPM and indoor air quality (IAQ) adoption beginning with an intensive, hands-on approach at a pilot school site. Emphasis is on education of IPM and IAQ principles, program compatibility with existing staff functions, and general staff communication. Various innovations are employed in a manner consistent with each school district's needs to facilitate the transition from a traditional spray regime to a verifiable and sustainable school IPM/IAQ program.

What is the Arizona Children's Environmental Health Coalition?

The "ACE Health Coalition" is a stakeholder group of participating school districts, state and federal agencies, pest management representatives, non-profit organizations, activists, and national IPM experts. It is coordinated by UA Urban IPM staff. The coalition is the primary conduit for state-wide program diffusion via peer-to-peer partnering.

Meeting topics include:

- Status of participating school districts
- Public health issues in Arizona
- The latest IPM/IAQ tools and products
- Applied IPM research by UA staff
- Emerging IPM services in the pest management industry

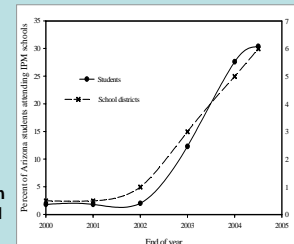
- IPM/IAQ forms (manual, pest sighting logs, inspection forms, record-keeping, etc.)
- Assistance with setting up a pest monitoring program
- Training for key pest management staff
- Assistance with pest identification
- Technical IPM/IAQ knowledge (state laws and compliance, products and tools, etc.)
- Guidance with crafting a district IPM Policy
- Use of pilot site for program demonstration



Program Outcomes



- Greater than 90% reduction in pesticide use per school district on average, and at the same time an estimated 85% pest reduction
- More than one-third of Arizona's school children (303,600 as of September 2005) attend school districts in various stages of program implementation
- Creating an IPM infrastructure in schools results in greater likelihood that the program will be self-sustaining, even if "key players" are removed from the picture
- Implementation is customized to fit the needs of a pilot school or district, which eases the transition from a calendar spray approach to a verifiable IPM program
- State agency partnerships facilitate both recruitment of school districts (e.g. AZ Department of Environmental Quality) and adoption of IPM/IAQ practices (e.g. AZ Department of Health Services)



Environmental Protection Agency's Tools For Schools
<http://www.epa.gov/iaq/schools/tools4s2.html>

Gouge, D. H., M. L. Lame, and J. L. Snyder. (2006). Use of an Implementation Model and Diffusion Process for Establishing Integrated Pest Management in Arizona Schools. *American Entomologist*. (In Press)

IPM Institute of NA, Inc. <http://www.ipminstitute.org/>

Lame, M. L. 2005. A Worm in the Teacher's Apple: Protecting America's School Children from Pests and Pesticides. Bloomington, IN: AuthorHouse.

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