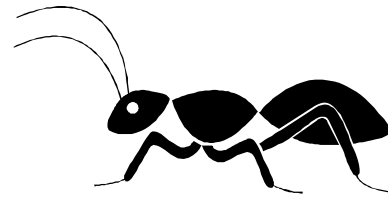


Urban IPM Extension Grant

- I. Project Title:** Children's Environmental Health Program
- II. Project Leader:** Dawn H. Gouge
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III. Project Team Members:

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Gregg Smith, Physical Engineer, Salt Lake City School District
Jennifer L. Snyder, Research Specialist, University of Arizona
Roy Swearingine, Salt River Pima-Maricopa Indian Community



- IV. Location:** State of Arizona and Southeast border region with Sonora, MX.

V. Critical Issue/Situation to be Addressed:

Expansion of the IPM in Schools program and incorporation of IAQ layer. The Arizona IPM in Schools program has affected over a quarter of a million children in public and tribal lands through voluntary adoption of the Monroe IPM Model. The program now involves a critical mass of districts in the Phoenix metropolitan area, additional sites are located in Tucson, on the Salt River Pima-Maricopa Indian Community, and Hopi lands. The program has secured previous funds from the UA Extension office, Region 9 EPA, Arizona Department of Environmental Quality, and HEPO. Additionally, in January 2005, the program formed partnerships with state and international agencies for IPM implementation in the Arizona-Sonora border school districts. The program's original goal of regional expansion, rather than a school district-by-district approach, is being realized even as federal grant monies (US EPA region 9) for the implementation of the IPM in Schools are coming to an end. To maintain the IPM in Schools program's expansion efforts, the program plans to:

- 1. Compile a kit of program innovations.** This is not a stand-alone kit, but rather a compilation of innovations used to inform interested school districts and others about the program, and will supplement education and training efforts by the IPM/IAQ implementation team. These "informational kits" will consist of a CD and/or VHS and printed materials, and will combine our current Monroe IPM Model innovations with an adapted version of the EPA's Tools for Schools. Kits will be used by the Arizona's IPM in Schools Coalition to achieve complete state-

wide expansion; the Coalition consists of school districts, non-governmental agencies, state agencies, industry, a team of national IPM implementers, and University staff, all of whom work as a team toward state-wide implementation.

2. **Provide salary support for UA staff Jennifer L. Snyder, Research Specialist and State IPM Coordinator.** The reduction of hard money for technical lines has resulted in the need to raise ten percent of technical position salaries for the 2005-2006 year. The anticipated soft money percentage for 2006-2007 year is 20%.

VI. Expected Outcomes:

Short term results from the proposed budget spending include:

1. Increased knowledge of Coalition members as to the tools and innovations used in school IPM/IAQ implementation.
2. Improved ability for Coalition members to share program information and resources with colleagues, neighboring school districts, and interested agencies.
3. Salaried position support will allow for continued immediate support for the IPM/IAQ School program, including publication of the monthly IPM/IAQ newsletter ("Pest Press"), school staff training and awareness, coordination of quarterly Coalition meetings, and overall support for state IPM/IAQ Director, Dawn H. Gouge.

Medium term results from the proposed budget spending include:

1. Adoption of IPM/IAQ by additional school districts leading to immediate elimination of all unnecessary pesticide applications on pilot school grounds (later district-wide), decreased risk of absenteeism due to pesticide spraying, reduced risk of exposure to asthma triggers from pesticide applications, increased school staff awareness of sanitation and pest conducive conditions, increased staff awareness of their role in sustainable school IPM, and a decrease in overall number of pest occurrences on school grounds.
2. Salaried position support will allow for coordination of annual IPM workshops, the addition of Indoor Air Quality assessments and training to existing IPM school programs as a way of addressing additional children's environmental health issues, and continued program expansion overall throughout the state of Arizona.

VII. Plan for Evaluation:

The IPM/IAQ in Schools program will evaluate desired outcomes for grant funding through:

- o Arizona Coalition Meetings, which convene quarterly and encourage the group's self-assessment.
- o Training school district facilities and maintenance staff in IAQ monitoring and tools, such as the use of radon kits.
- o The STAR Certification, awarded to school districts by the IPM Institute of North America for achieving strict, specific IPM standards.
- o Continued US EPA Children's Environmental Health Awards (which in 2005 were given to Mesa Public, Washington Elementary, and Kyrene school districts).
- o State agency and NGO recognition awards.

VIII. Outputs:

The Arizona IPM in Schools program provides education and training to school districts for adoption of IPM/IAQ on a voluntary basis. IPM (Integrated pest management) is an ecologically based pest management strategy that provides long-term management of pest problems with minimum impact on human health, the environment and non-target

LOGIC MODEL for School IPM Program

SITUATION	INPUTS	OUTPUTS		OUTCOMES – IMPACT		
		Activities	Participation	Short	Medium	Long Term
<p>To meet the growing demands of the IPM in Schools program in Arizona state, current participating school districts are being encouraged to partner with neighboring districts who in this way will become aware of the health, safety, financial, and other benefits of switching to a sustainable IPM program. As federal support for the program in Arizona comes to an end, this new district-partnering approach to continued expansion on a long term basis would benefit considerably from an Arizona IPM/IAQ kit.</p> <p>The reduction of hard money for technical lines has resulted in the need to raise ten percent of technical position salaries for the 2005-2006 year. It is essential that the Urban IPM Research Specialist position be maintained as a full time position.</p>	<p>Staff effort and time will be put into updating IPM/IAQ documents and determining criteria for which documents would best serve the purposes of the kit.</p> <p>Money is needed for compiling the IPM/IAQ kit for printing and photocopying costs, the purchase of binders, and CDs and/or VHS.</p> <p>Considerable time will be dedicated toward putting these kits together.</p> <p>To fulfill funding requirements for the Research Specialist position, time is being put into constructing grant proposals.</p>	<p>Develop tools and resources in the IPM/IAQ kit. Head production and dissemination of kits. Conduct a 1-year evaluation of the kit's impact on program expansion.</p> <p>70% of the Research Specialist position (Jennifer Snyder) is dedicated to IPM in Schools (30% toward lab research). Jen also serves as the Arizona IPM Coordinator, who organizes quarterly Coalition meetings, annual IPM/IAQ workshop, produces monthly, bi-monthly and quarterly reports on program status for various groups. Jen publishes a monthly newsletter, provides technical support for IPM Specialists in schools, provides ongoing IPM education to the school community, aides in the development of Monroe IPM Model tools, and processes arbo-virus vector samples and general arthropod submissions.</p>	<p>Those involved in using the IPM/IAQ kit include eight public school districts, two tribal lands school districts, and one private school district (all in Arizona), as well as prospective/interested school districts, University of Arizona extension staff from around the state, campus staff, state agencies, the Arizona-Sonora 2012 Commission, non governmental organizations, and interested members of the pest control industry.</p> <p>The Research Specialist position regularly interacts with all of the above as well as personnel from US EPA Region 9, Monroe County Community School Corporation, Indiana University, Westerville City Schools, Auburn University, University of Florida, and Salt Lake City Schools.</p>	<p>Short term impacts from the IPM/IAQ Kit include increased knowledge of Monroe IPM/IAQ Model steps and implementation processes by Coalition members and interested others. Also, the kit allows for the potential of program improvement by the involvement of state agencies, industry, and other organizations.</p> <p>Research Specialist position will allow for continued immediate support for the IPM/IAQ School program, including publication of the monthly IPM/IAQ newsletter ("Pest Press"), school staff training and awareness, monthly reports, coordination of quarterly Coalition meetings, and overall support for state IPM/IAQ Director, Dawn H. Gouge.</p>	<p>The IPM/IAQ kit will allow for more efficient networking with neighboring/interested school districts, dialogue and communication on IPM/IAQ, and recruitment of new school districts in the IPM/IAQ in Schools program.</p> <p>Both the IPM/IAQ kit and the R.S. position will facilitate adoption of IPM/IAQ by additional school districts. This will result in the elimination of all unnecessary pesticide applications on school grounds, decreased risk of absenteeism due to pesticide spraying, reduced risk of exposure to asthma triggers from pesticide applications, increased school staff awareness of sanitation and pest conducive conditions, increased staff awareness of their role in sustainable school IPM/IAQ, and a decrease in overall number of pest occurrences on school grounds.</p>	<p>By virtue of IPM/IAQ expansion efforts undertaken in the partnership with Arizona-Sonora 2012 Commission, IPM/IAQ kit contents will be translated into Spanish via the process of sharing this resource, and assisting in program implementation into that region.</p> <p>Ultimately, fewer school aged children will be exposed to unnecessary pesticides in schools, contributing to healthier environments, fewer asthma triggers, and increased attendance.</p>

Assumptions: *(Beliefs, expectations, and principles that guide our work.)*

1. We believe that everyone is interested in the concern over children's environmental health
 2. We expect that everyone wants to do what they can to improve children's environmental health with the least amount of financial input and the most immediate and efficient return.
 3. We are guided by the principle that improved knowledge of urban arthropods will lead to the correct, more efficient (and overall decreased) use of pesticides.
 4. We are committed to the sharing of information based on this principal.
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Environment: *(Influential factors)*

1. The Arizona State Governor has identified asthma and pesticides as two important factors to be studied in children's environmental health.
 2. Asthma is the most common, chronic childhood disease; more than one in twelve school-aged children (at least five million) have been diagnosed with asthma.
 3. Pesticides and insect allergens are two of the most common asthma triggers in schools; both have been shown to be significantly reduced by Integrated Pest Management and Indoor Air Quality programs.
 4. There is a common misconception that IPM/IAQ programs cost too much, that the monthly sprays applied by low-bid pest control companies are actually preventing pests (data has repeatedly shown that both are not true) and are harmless to children. The University of Arizona Cooperative Extension can play a key educational role by facilitating school districts as they transition from traditional pest control practices on to programs that are proactive, sustainable, affordable and significantly improve children's environmental health.
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