

## **Western Region School IPM Implementation and Assessment Work Group 2007-2009**

### **Previous Work, Related Experience and Justification.**

Extension and other School IPM (sIPM) programs rely on competitive funds to maintain programs. Although many such programs have been instrumental in providing resources and education to promote the implementation of school IPM, interrupted funding and limited personnel have hampered implementation efforts. Historically, school IPM efforts have often been focused in higher population areas in the eastern United States (Beyond Pesticides, 2003). However, western states now accommodate the fastest growing populations in the U.S., with Las Vegas, NV, and Phoenix, AZ, being two of the nation's fastest growing urban populations. While some western states (e.g., Arizona, Washington, California) have active school IPM programs in specific areas, they often struggle for resources, and many western urban areas lack implementation efforts completely. School IPM projects sponsored by state agency and non-governmental organizations are often disconnected from national networks that encourage collaboration and minimize duplication of efforts, and therefore often fail to make use of existing implementation resources. The result is an environment of fragmented school IPM programs throughout the West that are effectively isolated from one another.

In its first year of formation, the Western Region School IPM Implementation and Assessment Work Group set out to combine efforts and collectively address commonly identified issues. We developed a school IPM assessment tool and completed a state-by-state inventory of sIPM resources among nine represented states, and succeeded in establishing productive collaborations among previously isolated programs. Original membership has doubled and two additional states were brought on board to more fully represent sIPM activity in the West. Conference calls, personal communications, and regular e-mails have facilitated discussions on future collaborative efforts and potential funding opportunities and fostered partnerships among emerging and ongoing sIPM efforts. The first year's activities have given unique momentum to nascent, but previously-unfunded sIPM programs in particular. Significant leveraged funds were secured from federal government, state agencies, pest management industry companies, and non-profits in support of attendance at a face-to-face meeting of work group participants (Sept. 2007). This meeting will recap our assessment data, discuss future objectives, and provide an opportunity to assess IPM practices (standards and implementation tools) in a Portland public school.

### **Objectives.**

1. Expand the Western Region School IPM Implementation and Assessment Work Group by inviting appropriate representatives from Hawaii, Alaska, New Mexico, and Idaho.
2. Expand assessment of sIPM programs and activities in western states to include all additional states that join the work group in the coming term.
3. Conduct a national assessment of sIPM implementation tools through the eXtension website.

4. Identify regional and national networking opportunities and promote work group involvement on emerging projects that support awareness, implementation, and assessment of sIPM.
5. Promote work group objectives, members, activities, and resource findings to a national audience.

### **Procedures.**

***Objective 1: Expand the Western Region School IPM Implementation and Assessment Work Group by inviting appropriate representatives from Hawaii, Alaska, New Mexico, and Idaho.*** We are confident existing sIPM programs in the West are at this point well represented within this group; however, during 2007-2009 we intend to comprehensively expand the group by inviting membership from outlying and under-represented western states, hopefully resulting in work group representation from all 13 western states. Establishing a representative from each state, regardless of the status of sIPM implementation activities, will provide a substantial resource to emerging programs in these outlying and commonly overlooked states. In states which do not have an urban IPM extension specialist, surrounding state specialists will continue to help with assessments and implementation programs. Outreach on behalf of the work group will continue to be conducted by the work group Coordinator. Participation from additional change agents and stakeholders throughout our region, as well as from other state and regional sIPM work groups nationwide, will continue to be invited. Dr. Faith Oi, a participant from the Southern School IPM Working Group, will visit Hawaii to conduct a school IPM workshop this fall, and will help us connect Hawaii participants with the work group.

***Objective 2: Expand assessment of sIPM programs and activities in western states to include all additional states that join the work group in the coming term.*** To fully assess the extent of school IPM practiced throughout the West, we require additional information from previously non-participating states on the status of their school IPM programs, resources and activities. These data will be collected by identifying and inviting participation of one or more contacts from previously un-represented states and assisting them with completion of the state-by-state assessment tool we created in year one of this project. Data will be collected and combined with our existing state-by-state school IPM resources inventory (see Appendix 1). This process, conducted in each new state, will generate school IPM awareness and facilitate in-state collaborations. The revised inventory will provide a framework for future efforts of the work group to address specific, localized issues and obstacles in implementation efforts.

***Objective 3: Conduct a national assessment of sIPM implementation tools through the eXtension website.*** Implementation of sIPM is facilitated through the use of specific tools (inspection forms, pest sighting logs, monitoring protocols, etc.). We have gathered what we consider to be the best of the available tools and will obtain input on these from a national community of experts. Such input will help make these tools flexible for use by a variety of sIPM programs from a broad geographic area. The sIPM implementation tools will be assessed nationally via a new online resource, eXtension (<http://www.extension.org/>). Through this interactive forum, tools may be posted,

critiqued, and improved by national implementers and stakeholders. This online information source is nationally supported by university extension dollars, and several work group members are themselves directly involved in developing the sIPM pages within the eXtension website (sIPM topics will be housed within the larger Urban IPM Community of Practice). The School IPM eXtension team is perfect for this undertaking, having a wide variety of participants who interact directly with stakeholders regularly.

***Objective 4: Identify regional and national networking opportunities and promote work group involvement on emerging projects that support awareness, implementation, and assessment of sIPM.*** Currently, we are networking and resource-sharing with the Southern Regional School IPM Work Group. They have adopted the inventory form created by our work group to conduct similar information gathering in their region. Members of the southern region's group participate in our conference calls and plan to attend our work group's face-to-face meeting in September 2007. A number of our work group members are also participants in the National School IPM PMSP team. The survey document created our work group was ultimately merged with as existing PMSP "School IPM Report Card," giving work group efforts a national influence. Thirdly, an implementation program funded by the Utah Department of Agriculture and Food is funding 7 members of the work group to provide technical support for the program as they have no urban extension entomologists available in-state. Members participating in the Utah program will return to their respective state programs with an enhanced understanding of the sIPM implementation process. Pursuing these implementation activities is an objective of the work group and will help to ensure that we continue to identify and engage in opportunities that enhance local sIPM practice.

Regional and national networking and sharing news of resource opportunities that promote work group objectives will be facilitated by quarterly conference calls throughout the grant period. Face-to-face meeting opportunities will be used whenever possible to promote dynamic information exchange (e.g., at the Entomological Society of America meeting in Dec 2007, in the form of an ESA School IPM Network session). This will maximize funds and open opportunities for leveraged funds. A potential meeting in 2009 is the International IPM Symposium, which meets in April 2009 in Portland, OR.

***Objective 5: Promote work group objectives, members, activities, and resource findings to a national audience.*** Our efforts and activities during the first year of funding have garnered significant attention nationally. Making our activities and products accessible to change agents nation-wide may foster awareness of sIPM resources in the West and thereby facilitate collaboration toward work group objectives. The Arizona Pest Management Center website (<http://ag.arizona.edu/apmc/>) will be used as the repository for information generated by the working group, including objectives, members, activities, and resource findings of the work group.

### **Outcomes.**

Comprehensive work group representation throughout the West (obj. 1) will ensure at least one state partner in each western state; this will improve knowledge and awareness of regional and national sIPM funding and resource opportunities that will directly

benefit local programs. The expanded state-by-state inventory of school IPM status, resources and contacts (obj. 2) will be posted on the APMC website and raise public awareness of school IPM status throughout the west. The suite of sIPM “tools” selected for review on the eXtension website (obj. 3) is intended for – and will benefit – both implementers and end-users/adopters of sIPM, nationally. They will ultimately be made available on the IPM Institute of North America’s web-site and referenced in the National PMSP. Networking opportunities created by the work group (obj. 4) benefit all participants. Significant external resources have been leveraged by the current working group, we expect this to continue and to have increased impacts within each state involved. Making information on the work group, its activities and resources available in an easily accessed, centralized location (obj. 5) will: 1) establish an interface between work group activities and local end users/stakeholders, which will promote sIPM awareness within local programs; 2) promote collaboration with regional and national entities; and 3) reduce redundant efforts through sharing of all available resources.

This Work Group satisfies many goals of the Western IPM Center (<http://www.wripmc.org/Research/wipmcrfas06.html>). We will serve as the focal point for interactive communication about school IPM in the west (goal 1); involve stakeholders in identification of sIPM priorities (goal 2); promote interdisciplinary and multi-organizational collaborations (goal 4); facilitate relationships with government agencies (e.g., EPA) (goal 5); promote collaboration and minimize duplication of effort (goal 6); and organize responses to emerging regional sIPM issues (goal 7). These goals accomplished with minimal investment of WIPMC funds because of numerous and varied leveraged resources contributed by participating entities.

### **Evaluation Plans**

Success of our team building efforts will be measured based on participation of a broad range of relevant change agents from across the west. The state assessments will provide data on IPM implementation that will be used to measure our progress over time. The tools we develop will be pilot-tested by end-users and improved based on their input. Progress will be determined based on completion of resource development and by measuring distribution and access to the resources on-line.

**Probable Duration: 2 years.**

### **Cooperation of Key Personnel and Institutional Units Involved.**

The participants identified in this proposal have the expertise, the organizational and leadership abilities, and the direct connections to stakeholders and end-users to achieve success. The membership representatives include those involved with implementation programs as well as newly emerging programs. The diverse range of backgrounds includes representatives from federal agencies, state agencies, university extension, non-profit organizations, pest management industry, and school facilities experts.

**Dr. Dawn H. Gouge** has been the director of the University of Arizona (UA) School IPM Program since 2000, she has facilitated implementation of IPM in 13 school districts, impacting over one-third of Arizona’s school children (340,328).

**Jennifer Snyder** is a Research Specialist for the UA, and has worked on school IPM implementation efforts both in Arizona and nationwide since 2004. She has experience coordinating stakeholder meetings and trainings, providing sIPM presentations, conducting IPM inspections and arthropod identification, and composing sIPM bi-monthly newsletters.

**Dr. Al Fournier**, as Associate Director of the Arizona Pest Management Center (APMC) at the University of Arizona, works with faculty and stakeholders to identify needs, develop and allocate resources, and evaluate IPM programs in urban, agricultural and natural settings. Al's Ph.D. work at Purdue University (completed in 2005) evaluated factors affecting adoption and implementation of IPM in Indiana public schools.

The remaining Principal Investigators, **Carrie Foss** (Washington State University), **Tim Stock** (Oregon State University), and **Will Lanier** (Montana State University) coordinate Urban and/or School IPM Programs in their respective states and have regular contact with end-users (pest management professionals working in school environments and/or school administrators and staff). **Carrie Foss** manages IPM certification for landscape and turf in western Washington, for which she developed and implemented a training curriculum. Carrie also led the Western Region Structural Pest IPM Work Group (previously funded by the WIPMC). **William Lanier**, an Insect Diagnostician and ICPM Assistant, oversees the Montana School IPM program. This program promotes the launch of sustainable IPM programs in schools and child care centers throughout Montana. **Tim Stock** is an IPM Education Specialist with more than 13 years of experience with governmental and non-governmental organizations, institutes, and UN Agencies addressing community-based approaches to IPM. Tim is currently working on developing an outreach and training program to promote the implementation of IPM in Oregon schools. **Alexandre V. Latchininsky** (University of Wyoming), and **Assefa Gebre-Amlak** (Colorado State University) are both extension specialists wishing to initiate school IPM programs in their respective states as well as facilitate implementation programs in surrounding states.

**Collaborators:** Karl Arne (U.S. EPA Region 10); Clark Burgess (Utah Department of Agriculture and Food); Paul Cardosi (Ecolab, Inc.); Jon Carpenter (Nevada Department of Agriculture); Patrick Copps (Orkin, Inc.); William Currie (International Pest Management Institute); Jaslyn Dobrahner (U.S. EPA Region 8); Sherry Glick (U.S. Environmental Protection Agency); Tom Green (IPM Institute of North America, Inc.); Lyndon Hawkins (IPM Professional); Sara Leverette (Oregon Environmental Council); Jack Marlowe (Eden Advanced Pest Technologies, Inc.); Belinda Messenger (California Department of Pesticide Resources); John Scott (Colorado Department of Agriculture); Kyrrha Sevco (Ecology Action); Gregg Smith (Salt Lake City School District).

**Invited representatives:** Lawrence Graham (Auburn University, Southern IPM in Schools Working Group Director); Faith Oi (Florida University, Southern IPM in Schools Working Group member).