

**Arid Southwest IPM Network**  
**Progress Report to the Western Regional IPM Center**  
**2007 – 2009 funding cycle**  
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Al Fournier, Co-Principle Investigator, University of Arizona  
Peter C. Ellsworth, Principle Investigator, University of Arizona  
John Palumbo, Co-Principle Investigator, University of Arizona

Collaborators:

Eric Natwick, County Director, UC ANR Cooperative Extension, Holtville, CA.  
Jay Davison, Extension Specialist, University of Nevada Cooperative Extension, Fallon, NV  
Earl Creech, Extension Weed Specialist, Univ. of Nevada Cooperative Extension, Fallon, NV  
Scott Bundy, Professor, Dept. of Entomology, Plant Pathology & Weed Science, New Mexico State University.

**Overview**

The Arid Southwest IPM Network (ASIPMN) was previously established as an Information Network project serving the Southeast low desert agricultural region centered in Arizona and extending throughout this arid and semi-arid region. The ASIPMN includes individuals and agencies involved with Integrated Pest Management (IPM) in NM, NV and southern CA (e.g., Imperial & Palo Verde Valleys). This region is characterized by areas of low rainfall, high solar radiation, intensive irrigated agriculture, large urban centers with burgeoning populations and fragile and sensitive natural ecosystems. The pest spectrum confronted by our clientele is at times unique to our environment. This network is comprised of a small, but effective group of scientists and educators including Extension Specialists, Research Scientists, Professors, County Agents and Farm Advisors, and Program Coordinators. We serve a very distinct clientele with specialized needs defined, in part, by the unique environment in which we live. As such, our translation of programs from other areas of the Western region or from other parts of the United States is limited. Many IPM tactics must be homegrown and delivered in a manner sensitive to our unique environmental, production, and natural resource needs.

**Project Objectives:**

1. Serve as the primary and timely information source for USDA, EPA, and other state, regional, and federal interests regarding pest, pesticide and pest management issues in our multi-state area.
2. Coordinate with diverse stakeholders, including extension IPM coordinators, to identify critical IPM issues facing our clientele and prioritize programs of response.
3. Maintain the ASIPMN website with links technical and organizational IPM information throughout our network region.
4. To facilitate and participate in Western region objectives and priorities including the development of IPM surveys, crop profiles and Pest Management Strategic Plans.

This report summarizes activities and progress on Information Network objectives in the past (2007 – 2009) grant cycle.

**Objective 1: *Serve as a primary and timely information source***

- **Communication Network.** The Arid Southwest IPM Network was established with collaborative transdisciplinary contacts in each of the four states (AZ, CA, NM and NV) that comprise the region defined by the Network. Over the past year, additional contacts have been added to email lists and phone communications. Dr. Al Fournier, who manages communications for the ASIPMN, maintains multiple regional email lists, organized by crop and by pest type, to facilitate rapid two-way communication on a variety of IPM-related issues. These serve as a “frontline” communication system for Federal, regional state and local information requests related to pesticides and pest management, and also as a means of informing network partners of new IPM information, publications, meetings, etc. We also maintain an extensive list of Arizona agricultural stakeholder contacts, including growers, PCAs, crop protection industry representatives, and agricultural associations, who provide local stakeholder perspectives on emerging issues. New contacts continue to be added as they are identified as needed to address specific inquiries.
- **State and Federal Information Requests.** A primary function of the ASIPM Network is to solicit and summarize regional stakeholder input on federal and state pesticide information requests. In the past 2-year cycle, we have requested and coordinated pesticide information responses on 11 products / active ingredients / topics, affecting a broad range of crops and horticultural commodities. These responses included (where appropriate and where provided) input from Network partners outside Arizona. Each request (and the report we compile as a response) is documented on our website at [http://ag.arizona.edu/apmc/Arid\\_SWPMC\\_Info\\_Requests.html](http://ag.arizona.edu/apmc/Arid_SWPMC_Info_Requests.html). In the past two years, responses have included topics such as Endosulfan use and applicator safety, Oxamyl use on watermelons, imidacloprid use on cotton, and others.
- **Pesticide Use Reporting (PUR) Database.** In addition to direct input from stakeholders and end-users, a key information source for Arizona pesticide use data is our Arizona Pest Management Center Pesticide Use Reporting database. This database has been developed in cooperation with the Arizona Department of Agriculture (ADA), which requires and documents pesticide use data from applicators on all custom applied pesticides, restricted use pesticides, and a variety of other agricultural applications. While we do not have 100% use reporting, these data often provide great insight into grower needs and use patterns for specific products and AIs and how these have changed over time. Since the last report, we have greatly expanded this database from 5 years of data to 19 years. We now have data from 1991 through 2009, the complete electronic record for our state. Through other leveraged funds, we were able to hire a database specialist in September 2008, who has assisted with completion of this database. Currently, the database is a desktop version. In the next phase, we are exploring the development of online access to these data.

- Crop Insect Losses Data.** Another important data resource for our reports is the stakeholder-generated data provided through the transdisciplinary Crop Pest Losses and Impact Assessment Working Group (a separately-funded WIPMC Work Group). These data are available and updated on an annual basis for key crops (cotton, melons and lettuce), and document yield losses associated with specific pests, control costs, pesticide use, and economic data for Arizona and the low deserts of California. In the past two years, we have expanded our data collection beyond insects to also include weed and plant disease management information for these crops. Since these data are based on stakeholder reports, they provide excellent insight into grower needs and use patterns. These data are often incorporated into pesticide information requests for the specific crops for which we collect data. Cotton Pest Losses data are available online at <http://ag.arizona.edu/crops/cotton/insects/cil/cil.html>. Melon and Lettuce Pest Losses data are available at <http://ag.arizona.edu/crops/vegetables/insects/vegloss.html>.
- Other Stakeholder Requests.** In addition to addressing top-down information requests related to IPM and pesticide use, our increasing capacity has allowed us to address, on an individual basis, an increasing number of requests from various regional stakeholders. This has included requests from growers (e.g., pesticide report history of a specific section in connection with development of organic crop production), industry representatives (e.g., use patterns for a specific product to support additional registration applications), and researchers (e.g., pyriproxifen use in specific crop locations to be correlated with resistance among field collected whiteflies).

**Objective 2: Assemble diverse interests in IPM to identify critical issues**

Ongoing engagement with stakeholders (including growers, pest control advisors, agricultural industry representatives, researchers, and state and federal agencies) is integrated into the many functions of the ASIPMN. While these are too numerous to list fully in this report, we highlight below a few key interactions related to this objective.

- USDA Risk Avoidance and Mitigation Program Proposal.** A major success related to Objective 2 of this project was the successful funding by the USDA of a major regional four-year project to develop, improve and deliver sustainable, areawide management strategies for Lygus in the Western agricultural landscape and reduce all forms of risk. This collaborative, multi-state, multi-disciplinary project includes 13 principle investigators from Arizona, California, New Mexico and Texas and will address one of the most important stakeholder-identified pest management needs in our region. We view our success in obtaining funding as directly related to the support provided through the ASIPMN. This effort would not have been possible without a significant time investment of the Network director in helping to coordinate communications and documents related to the proposal. More information is available at <http://cals.arizona.edu/apmc/RAMP.html>.

- **Crop Pest Losses Impact Assessment Work Group (CPLIAWG).** Funded through a separate Western IPM Center work group grant, CPLIAWG has continued to be a major stakeholder engagement activity each year. We held seven meetings in the 2007-08 season and five in the 2008-09 season, discussing and developing crop pest losses data for cotton, head lettuce, watermelons, cantaloupes and, to a lesser extent, alfalfa, and interacting with about 85 stakeholders (PCAs, growers, industry representatives and Extension personnel) in year one and 90 in year two from Arizona and California. In addition to working with Pest Control Advisors, agrochemical representatives, growers, and Extension personnel to develop these data, these workshops serve as an important forum for stakeholder input and discussion on critical IPM issues.
- **Noxious & Invasive Weed Management Work Group.** Supported by a WIPMC Special Issues grant, the Southeastern Arizona Weed Management Area (SEAZWMA) and the Southwestern New Mexico Cooperative Weed Management Area (SWNMCWMA) pulled together stakeholders in December 2008 to begin working on a collaborative strategic plan for noxious and invasive weed management in a 5-county area of our two states. The group developed priorities and action items related to the identification, mapping and integrated management of noxious weeds in our five county area. At a follow-up meeting April 2009, teams developed specific action plans and timelines for addressing the identified priorities. Stakeholder priorities, meeting proceedings, grant reports, action plans and participant lists can be found on our web page on the Arizona Pest Management Center website ([http://cals.arizona.edu/apmc/noxious\\_weeds.html](http://cals.arizona.edu/apmc/noxious_weeds.html)). This group submitted a successful WIPMC grant in 2009 to establish themselves as working group.

**Objective 3: *Maintain the ASIPMN website with links technical and organizational IPM information***

- The Arid Southwest IPM Network website was launched in spring 2007 and is available at [http://ag.arizona.edu/apmc/Arid\\_SW\\_IPM.html](http://ag.arizona.edu/apmc/Arid_SW_IPM.html). This site is hosted by and is fully integrated with our Arizona Pest Management Center website (<http://ag.arizona.edu/apmc/index.html>) and links back to the Western IPM Center website and Extension partners in each participating state. This site includes background information and key contacts for the ASIPMN, an inventory of funded IPM projects, links to Pest Alerts (hosted on the Arizona Crop Information Site), and a section on identified IPM priorities for the Arid Southwest region, including links to key PMSP and the proceedings of the 2006 Arizona Pest Management Center Summit.
- Our “Information Requests” page ([http://ag.arizona.edu/apmc/Arid\\_SWPMC\\_Info\\_Requests.html](http://ag.arizona.edu/apmc/Arid_SWPMC_Info_Requests.html)) hosts information on all federal information requests, including final reports compiled based on regional transdisciplinary stakeholder input from partner states and organizations. Since the last reporting period, we have posted 13 additional information requests and responses.

- This site also links to the Arizona Crop Information Site, which hosts technical IPM and crop production information for crops of importance throughout the desert southwest.

**Objective 4: *Facilitate and participate in Western region objectives and priorities***

- **General Comments.** The ASIPM Network, in all of its functions described above, works collaboratively with the Western IPM Center to help facilitate development and implementation of IPM priorities for the Western region. We contribute annually to the Western IPM Center’s call for IPM priorities, through solicitation and compiling of stakeholder priorities.
- **National Pest Management Strategic Plan (PMSP) for IPM in Schools.** Arid Southwest IPM Network participants Al Fournier and Dawn Gouge attended the workshop in Nevada in October 2006 and were active participants in ongoing conference calls and subcommittees involved in drafting the document. The final document was completed in 2008.
- **Desert Cotton PMSP.** In May 2007, diverse stakeholders in Arizona and adjacent desert regions of California met, with separate funding from the Western IPM Center, and collected stakeholder input to develop the framework for the document. We were pleased with the level of interest and participation achieved. The document is currently in first-draft stage, with “homework” assignments completed for most (but not all) sections. This project has not progressed as quickly as anticipated, but we have the information needed to complete the project in the coming year.

**Summary**

Through the ASIPM Network:

- We have created and continue to expand a multi-state network capable of responding in a timely way to IPM information needs for our sub-region, including responses to Federal information requests.
- We have developed information resources such as our Pesticide Use Reporting database and the Crop Pest Losses that have improved the quality and timeliness of our reports.
- We have developed improved relationships with multiple government agencies that will facilitate improvement and measurement of our IPM programs and enhance our ability to respond to critical pest management needs and information requests.
- We have built collaborative partnerships that further IPM goals in the desert southwest.
- We have facilitated stakeholder input to identify major IPM priorities for agriculture, urban and natural resource sectors, including participation in and coordination of Pest Management Strategic Plans.