

The Benefits and Impacts of Regionality and the Role of the Western IPM Center

By Rick Melnicoe and Diane Clarke

Creation and Purpose of the Regional IPM Centers

The four Regional Integrated Pest Management Centers were created and funded in 2000 to address a lack of regional coordination, to broaden and improve opportunities for stakeholder input, and to avoid duplication of efforts within USDA-funded programs. A major tenet of the Centers is that each part of the country has different IPM-related needs and that these can be more effectively and efficiently served with a regional approach rather than a national one. This allows each regional Center to be in touch with the needs of stakeholders in the region and to uniquely tailor programs to meet the needs of regional and local clientele, especially those considered underserved.

The Benefits of Regionality

Expanding Access for Stakeholders. USDA has always valued stakeholder input on programming and Requests for Proposals (RFPs). However, many stakeholders feel it is difficult to directly contact USDA. There are several reasons for this, including remoteness (e.g., the Pacific Islands), smallness (e.g., growers of specialty crops that do not have a commodity organization), and feelings of “no one will listen,” among other reasons.

The Regional IPM Centers have broken down many of these barriers by providing easy access at the regional level. This has been accomplished by encouraging our state partners to actively participate in the Centers’ activities, including Information Networks and the Advisory and Steering committees; by holding subregional meetings, such as symposia and Pest Management Strategic Plan workshops; and by supporting regional work groups.

Serving Region-Specific Diversity of Needs. There are more than 500 commodities (e.g., crops and livestock—but not counting the enormous variety of ornamental plants) produced in the West. Within the region there is every type of agricultural setting, from tropical to tundra, coastal to desert, irrigated land to dry land, and mountain rangeland. This diversity is not well served without local coordination of activities. The Western IPM Center values and depends upon the role of stakeholders in determining what pest management issues need to be addressed. Using the input of a diverse cross-section of stakeholders, including those on our Advisory Committee, the state IPM Coordinators, and others, we connect unique local issues to national, regional, and local funding opportunities. Center funding has been available for quickly addressing new and emerging issues, longer-term research and



Rick Melnicoe

The Western IPM Center serves a region-specific diversity of needs. On the tropical island of Rota, papayas are one of the crops grown. Rota is part of the Northern Marianas Islands, one of the U.S. Pacific Island territories served by the Western IPM Center.

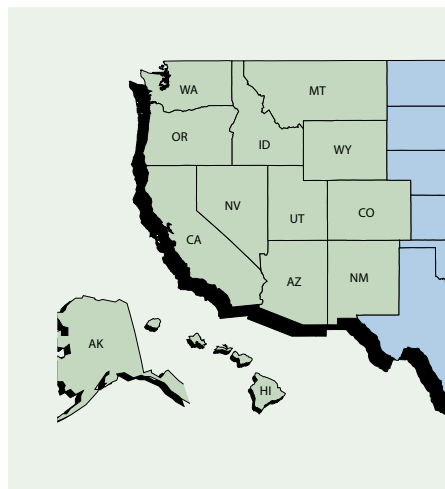
extension projects, work groups, publications, and surveys, all of which have been responsive to stakeholder-identified needs in the West.

Reducing Duplication and Creating Synergies through Cooperation with Other Regional Programs. The WIPMC has evolved

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Center Scope

The Western IPM Center enhances communication between federal and state IPM programs in the western United States: Alaska, Arizona, California, Colorado, Hawaii and the Pacific territories, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. It serves as an IPM information network, designed to quickly respond to information needs of the public and private sectors.

Director's Comments

During the June Regional IPM Centers Directors' meeting in Washington, D.C., Dr. Deborah Sheely, Deputy Administrator of the Competitive Programs Unit at USDA-NIFA, invited comments on the 2010 AFRI RFAs. I would like to share with you my comments to Dr. Sheely. Many of the issues I wrote about are concerns expressed by the Western IPM Center's Advisory Committee (see article on page 7), which met in late June. The related lead article of this edition of *The Western Front* discusses the importance of Regional IPM Centers and the value they bring to stakeholders and to USDA.

—Rick Melnicoe

August 3, 2010

RE: Comments on AFRI RFA

Dear Debby,

Thank you for the opportunity to comment on the Agriculture and Food Research Initiative (AFRI) RFA and suggest improvements for 2011.

AFRI grants were authorized to be awarded to address priorities in United States agriculture in the following areas:

1. Plant health and production and plant products;
2. Animal health and production and animal products;
3. Food safety, nutrition, and health;
4. Renewable energy, natural resources, and environment;
5. Agriculture systems and technology; and
6. Agriculture economics and rural communities.

AFRI supports interdisciplinary, multi-functional projects in five "societal challenge" areas to achieve significant and measurable outcomes and achieve goals. These areas are:

1. Keep American agriculture competitive while ending world hunger;
2. Improve nutrition and end child obesity;
3. Improve food safety for all Americans;
4. Secure America's energy future through renewable biofuels; and
5. Mitigate and adapt agriculture to variations in climate.

The Western IPM Center recently held its annual Advisory Committee meeting. The Advisory Committee is comprised of a wide range of stakeholders in the West representing a diversity of IPM interests. At that meeting we discussed many issues, including the role of the Regional IPM Centers and how this might relate to the AFRI priorities and challenges above. Most of the comments that follow are from these stakeholders.

Missing Pieces: Stakeholder Input and Regionality

Our Advisory Committee indicated that two key areas that were lacking in the 2010 AFRI RFAs include 1) some means for regional coordination of issues and 2) collection of the full breadth of stakeholder needs. For the most part, the 2010 RFAs were very specific in the types of projects requested and did not necessarily represent a broad range of stakeholders. The 2011 RFAs would benefit from greater stakeholder input.

The "Climate Change" RFA comes the closest to what we believe is a good regional approach. However, this RFA is very specific on priorities and does not address the broad array of issues and possibilities that are described below.

Establishing Regional Coordination Teams

A possible means to gain better stakeholder input at the regional level would be to establish Regional Coordination Teams for 4–5 years. These teams would be responsible, in part, for assessing local and regional needs dealing with various issues. They would be the "antennae," picking up needs and issues from stakeholders that would then be communicated to USDA. These teams would have close contact with other USDA programs and coordinate information transfer. Teams could engage stakeholders at the state and regional levels in ways that the USDA cannot. It is very difficult for ordinary citizens to actively participate in policy decisions with federal government agencies. For example, large commodity organizations have reasonable access, but small producers of specialty crops generally do not. These teams would be the link between stakeholders and federal agencies, providing an entry point for stakeholders. Additionally, they could provide enhanced coordination among USDA-funded programs (SARE, WQ, IR-4, etc.), grant recipients, and the Land-Grant universities. The current structure of pest management programs in the United States needs this coordination at a regional level to eliminate duplication of efforts and dilution of funding. They would provide regional flexibility and response to human health and environmental issues and economic viability of agricultural production.

Ensuring Participation of Underrepresented Regions. Currently, U.S. territories, protectorates and several states (e.g., Alaska, Hawaii, and Nevada in the West) are at a disadvantage in competing for AFRI grants due to

remoteness and few staff. A regional approach will provide opportunities that would otherwise not be there.

Responding Quickly to Emerging Regional Issues. The value of the teams would soon be apparent when emerging issues arise. An annual RFA, by itself, cannot be the means to quickly respond to emerging issues. With a regional program in place, funds could be ready for quick response. This can be accomplished with funds dedicated to this purpose. Mechanisms developed by the Regional IPM Centers to competitively distribute funds have worked very well for the past decade.

Improving Extension of Basic and Applied Research. Another area in AFRI that needs improvement and would be well-served by the Regional Coordination Teams is extension. Many of the 2010 priorities are basic research. There must be a means to take these projects (and others) to the next stages: applied research, outreach, implementation by users, and finally, evaluation.

The priorities and challenges for AFRI can be best achieved via an integrated approach. An important part of pest management is applied research. By taking the basic research to the next level, applied research can demonstrate to stakeholders the utility of the particular approach. Extension to users and finally evaluation of adoption, reduction of risk, and improved economics complete the work.

Western Region Pest Management Issues

Regional teams will strengthen the ability of AFRI to implement an integrated approach and address specific regional issues such as those identified by western stakeholders. Teams could follow the model developed by the Regional IPM Centers that integrates research, extension, education, implementation, and evaluation. Strength of regional teams would be flexibility in responding to needs identified by regional stakeholders.

The following are some western priorities developed by the WIPMC Advisory Committee that Regional Teams could address. These also could be stand-alone topics in the various AFRI RFAs.

1. Ensure that stakeholder priorities and needs are met.
2. Support the development of a healthy and profitable agricultural system.
3. Continued reduction in risk/increase in pollution prevention.
4. Support economically healthy communities.
5. Develop effective solutions for protecting the environment.
6. Research on high quality crops with minimal inputs.
7. Develop tactics for reducing impacts of invasive species.
8. Increase consumer awareness and adoption of IPM practices.
9. Manage pests while minimizing environmental and human health impacts.

These issues are in close alignment with NIFA's and AFRI's objectives. They will help improve plant and animal health and production; improve food safety; improve agricultural systems; improve agricultural efficiencies and economies; keep American agriculture competitive; and mitigate and adapt agriculture to variation due to climate change. They also fall into areas that can and should be managed at regional levels because they empower dynamic solutions on a regional basis and enable efficient use of federal funds. Each of the existing four USDA regions is unique. A regional approach to challenges facing the regions is the responsive and cost-effective way to address local needs. And by involving a multi-state approach, the federal requirements for regional activities by Land-Grant universities can be strengthened.

Thank you for the opportunity to comment on the AFRI program. I hope that these comments are helpful.

Sincerely,



Rick Melnicoe
Director, Western IPM Center

with the development, in 2004, of the *National Roadmap for Integrated Pest Management* as well as with the new USDA-National Institute of Food and Agriculture (NIFA) priorities. Roadmap and NIFA priorities are addressed through the various programs of the WIPMC. Coordination and partnerships reduce duplication and can synergize programmatic efforts. For example, the Western Sustainable Agriculture Research and Education Program (WSARE) and the WIPMC have sequentially funded projects important to the West. This has eliminated duplication and reduced costs to both programs while addressing important stakeholder needs. The partnership of the WSARE Regional Coordinator and the WIPMC Director, embodied in their membership on each other's Advisory Committees, has created a thorough understanding of each other's programs and strong ties of mutual support.

Facilitating Linkages for Multistate and Extension Activities. Many USDA-funded grants encourage or require multistate and multidisciplinary partnerships. The WIPMC is available to provide coordination and facilitation for teams seeking these USDA grants. This availability also helps those seeking Hatch Act funds to meet the mandates of multistate projects. As well, the WIPMC fosters and supports these regional linkages through its own grants—for work groups, Pest Management Strategic Plans (PMSPs), and critical IPM issues—which require multistate partnerships. Many of these WIPMC-funded multistate projects have in turn been successful in receiving larger grants supporting even wider partnerships, greatly leveraging the Center's initial investment. In addition, the research and extension requirements of grants ensure that information developed through the grants reaches the user community. Research without subsequent extension is generally not very useful to agriculture. By facilitating and supporting multistate partnerships occurring through many funding avenues, the WIPMC has brought researchers and Extension personnel together to better serve the broad diversity of clientele in the western region.

Bringing People Together through PMSPs. PMSPs are a highlight of the collaboration and coordination supported by the WIPMC in the West. Often, an individual in a state suggests the development of a PMSP based on feedback from his or her clientele. The WIPMC normally suggests that other states producing the commodity also be invited to participate in developing the PMSP. Most PMSPs in the West become multistate endeavors, with participation by commodity organization representatives, growers, crop consultants, university researchers and specialists, and others. One benefit of bringing this variety of individuals into the PMSP process is increased communication between growers and researchers.

Capturing the Diversity of Regional and

Subregional Needs through PMSPs. The end result of the PMSP process is a detailed description of production practices and pest management issues for a crop, as well as a needs assessment for research, regulatory, and educational issues across the region or a subunit of the region. Differences in subunits are recognized and discussed rather than lumped together. This recognition of differences more faithfully represents the diversity of the crops across the region and the diversity of the region's growing conditions. Issues identified in PMSPs become documented needs that can be addressed through various WIPMC programs or by other entities. USDA and EPA use PMSPs as a basis for further research (USDA) or regulatory decisions (EPA). Several PMSPs have been produced nationally, and one was done internationally, with Canada.

Serving Nonagricultural Needs through PMSPs. PMSPs are not limited to agricultural settings. The IPM in Schools PMSP was a collaborative effort among all four Regional IPM Centers, USDA, USEPA, and approximately 50 meeting attendees. The resulting document outlines a process for achieving high-level IPM in K–12 schools by 2015. The reduction of pesticide use in schools that will result from dissemination of this PMSP will have a significant impact on the health and well-being of children across the United States.

Bringing People Together through Work Groups. Another WIPMC regional success has been the support for multistate work groups. The WIPMC has supported many different work groups covering a variety of topics. The philosophy underlying these groups is to provide limited funding for work to address a specific topic. Team members are self-selected and normally meet once per year. Work groups are funded for up to 2 years, but may reapply if their work plan evolves. One of the most successful work groups in the West has been the Weather Systems work group. This group originally started in the Pacific Northwest, but it expanded to include participants from California, Idaho, Oregon, and Washington. The group has developed improved weather forecasting models and sought additional grant funding to expand these efforts. To date, they have leveraged more than \$2.4 million additional funds.

The adaptability of work groups has been inspiring. Additional members join, in some cases from outside the western region. As new

issues arise, the work groups are often the first to begin addressing them. The WIPMC has suggested possible new members through its contacts. These additional members bring an increased diversity of knowledge and skills to the work groups.

Providing Timely Responses to Emerging Pest Problems through Small Seed Grants. During planning for the first WIPMC grant application, it was decided that it would be beneficial to have a small pool of competitive funds available to quickly address emerging



Rory McDonnell, UC Riverside

Cuban slug (Veronicella cubensis), one of the many vectors of rat-lung disease. The WIPMC-funded Snail and Slug Management in Ornamental Crop Production work group brought together researchers from California, Hawaii, Oregon, and Washington to discuss current projects as well as priorities for future research and outreach.

issues. These Special Projects funds, which can be requested for up to \$5,000, would be quickly dispersed to get experts together to address a new pest issue. These experts could then develop a plan of action to deal with an invasive or exotic pest without having to wait for an annual grant cycle. Special Projects grants have gotten people together quickly to address problems such as thousand cankers disease of walnuts, Himalayan blackberry, and other new problems in the West.

The Impacts of Regionality

Impacts in the Western Region. Since its inception, the WIPMC has served as a coordinating and facilitating unit for responding to pest management issues in the West in ways that had not been done before. The boundaries of agricultural, urban, and natural settings have been crossed. The WIPMC has worked with all western states and territories in all pest disciplines. Collaborations have been facilitated and developed, and needed research and extension have been supported and in many cases linked.

Impacts for Federal Agencies. USDA and USEPA have received on-the-ground information that has been tremendously helpful in addressing local and national pest management issues. The specific benefits to USDA have included development

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Carla Thomas

Associate Director, Western Plant Diagnostic Network

Carla Thomas, who has been a member of the Western IPM Center's Advisory Committee since 2005, is the Associate Director of the Western Plant Diagnostic Network (WPDN), the arm of the National Plant Diagnostic Network (NPDN) that serves the western region (see Sidebar 1). She has been with the WPDN—which is administered through the Department of Plant Pathology at the University of California, Davis—since its inception in 2002, having assisted with its conceptualization, design, creation, and operation. Carla also chairs the Epidemiology Subcommittee for NPDN and is the Exercise Coordinator for the western region. Carla works closely with her colleagues Richard Bostock, Professor of Plant Pathology, WPDN Director, and Executive Director of the NPDN; Richard Hoenisch, WPDN Training Coordinator; Andrew Coggeshall, WPDN IT Manager; and Neil McRoberts, an Assistant Professor of Plant Pathology at UC Davis and an epidemiologist.



Carla Thomas

Diane Clarke

Carla's Participation with the Western IPM Center

WIPMC Director Rick Melnicoe and Associate Director Linda Herbst wanted an NPDN presence on the Advisory Committee, and they say that Carla enthusiastically agreed to join. "Carla's presence and participation have maintained an important linkage with NPDN, especially with issues relating to introduced pests in the West. And she brings the perspective of plant diagnosticians, which we don't frequently encounter," said Rick. Linda added, "Carla has been a particularly strong participant with the WIPMC-funded Work Group on Weather Systems. She has been instrumental in that group."

Carla has also assisted with Pest Alerts, especially those responding to diseases. And she has more closely linked the WPDN with the Regional IPM Centers through her involvement with *ipmPIPE* (Pest Information Platform for Extension and Education). Linda continued, "Carla is very committed to training and getting people up to speed with these tools." In addition, Rick remarked on Carla's participation on WIPMC review panels, expressing appreciation and saying, "She has been very willing and eager to help."

Carla said the relationship with the WIPMC has been invaluable to the WPDN from the very beginning. During her first conversation with Rick Melnicoe, Rick pointed out work being done at the Integrated Plant Protection Center (IPPC) at Oregon State University in Corvallis, especially the weather modeling and risk assessment tools they have developed for the Pacific Northwest. She and Rick Bostock met with people at the IPPC, and since then, Carla said, they have enjoyed a very successful partnership. "All of their work, including what the weather work group does, supports the tools we need to analyze our work for the NPDN national repository." Carla went on to say that because of its regional communication network, the WIPMC provides critical support for WPDN's role of interstate coordination and the recognition of potential emerging threats. In addition, Carla cited the importance to the WPDN of WIPMC funding for applied agriculture. "The WIPMC is the only program that has consistently funded IPM research. It's been a tremendous support for consistent progress in our knowledge of applied work in the field, and particularly for IPM as a holistic, whole-systems approach." She said the WIPMC and WPDN have also partnered a number of times for special projects, like mini-grant funding to respond to unanticipated pests (e.g., spotted-wing drosophila). Finally, Carla noted that the Pest Alerts, especially those on sudden oak death and the Asian longhorned beetle, have served as an important training tool for first detectors in the West.

"Here at the WPDN, we think of ourselves as the mortar in the wall. The bricks are all the important pieces, and we try to fill the gaps."

Carla's Roles with WPDN and NPDN

Associate Director: In her role as Associate Director of WPDN, Carla is in charge of day-to-day communications and operations. She helps Director Rick Bostock to compile budget requests, assemble the annual regional budget, and prepare paperwork for grant subcontracts. Carla also serves as liaison with the WPDN's partners on various projects. She is in charge of epidemiology and exercises (see below) and has served as support for actual responses, particularly in California. She runs committee meetings, serves as the WPDN representative for committees and other meetings, and assists the Director with their communication with subcontractors. (The WPDN regional center supports 17 subcontracts in the region, which includes 10 western states and the U.S. territories in the Pacific.)

Epidemiologist for NPDN. Each NPDN region holds one national responsibility.

Epidemiology is the WPDN's responsibility,

and Carla heads up that effort. The national Epidemiology Subcommittee is charged with design and implementation of analysis systems for NPDN diagnostic data in collaboration with existing and new survey and response programs at the USDA Animal and Plant Health Inspection Service (APHIS) and state departments of agriculture. The subcommittee's major project in the last several years has been the development of a national repository of diagnoses received from more than 100 labs across the United States. The repository now has more than 600,000 records. Carla said that before 2004, there had never been a multistate diagnostic database. "Never before had diagnostic labs been coordinated and unified to this level in terms of communications, protocols, and sending their information to a centralized repository."

The mission of the NPDN's epidemiology program is passive surveillance of the diagnoses in the repository so that unusual outbreaks can be recognized earlier. Carla and her team coordinated the design and building of the system from scratch, holding several meetings with scientific experts to design the system at the national level. Carla said, "There's a lot of work that goes into standardizing the diagnostic records. We spent a couple of years creating a dictionary of appropriate terms to use." In the early days, everything was on paper. Now it is computerized with standard pull-down menus. Carla emphasized, "Many people in each region have put a lot of work into this. The result is that we have a pretty good database that is getting quite consistent, and diagnostic test results are now described in a standardized manner." She said that the emphasis now is on creating different tools to analyze the information within the repository.

Another big area of effort in the epidemiology program is the development of data-sharing policies and procedures for the release of interstate internal and public information. They are working to craft a procedure to allow low-consequence information to be shared openly and high consequence information to be shared in a confidential framework.

Exercise Coordinator for WPDN. Another expression of the NPDN's overarching goal of standardization and coordination has been the development of protocols for exercises that are conducted in the regions. Early on, Carla was involved with this at the national level. She said, "The first thing we did was to 'lock' eight people in a hotel for a week and get all of our protocols into a seamless form. Then we ran exercises, identified gaps, and coordinated ways to bridge the gaps." This chain-of-custody (of the pest) and chain-of-communication exercise protocol, used by all of the regions, is 12 pages long now. It coordinates detection, diagnosis, and communication of results.

Sidebar 1

What is the NPDN?

Established by the USDA in 2002 as part of the response to the terrorist attacks on September 11, 2001, the National Plant Diagnostic Network (NPDN) is a collection of plant diagnostic facilities at land-grant universities and state departments of agriculture throughout the United States and its territories. NPDN is divided into five regional networks: Northeast, North Central, Great Plains, Western, and Southern. Each regional center (hub) coordinates diagnostic data gathering, collaboration, training/outreach, and related diagnostic activities of member land-grant institutions, national agencies, and state departments of agriculture. The NPDN's mission is to enhance national agricultural security by quickly detecting and alerting decision makers about outbreaks of pests, weeds, and pathogens. The Network has established effective and secure communications and developed standardized diagnostic and reporting protocols. In 2004, a national repository for diagnostic data collection and analysis was implemented.

Each regional network conducts protocol exercises that allow network participants to run through hypothetical pest outbreaks and test the protocol. Carla runs the exercises in the West, which are conducted through telephone calls and a Web-based logging system in which participants log the steps they take. Carla said, "The exercises have been very successful in that our standard operating procedures (SOPs) are much more thorough and complete than they were, and people know each other and have working experience with each other that they wouldn't otherwise have." In anticipation of the arrival in the United States of soybean rust, NPDN wanted to run all of the key soybean states through the soybean rust exercise before the disease arrived. Twenty-six states were exercised in 18 months, and the first appearance of soybean rust occurred several weeks after the last exercise was completed. Carla added, "APHIS has a robust response program. We have a diagnostic program. We support each other in the process."

First Detectors

The WPDN established a "first detector" network to help monitor the introduction of new plant pests or unusual pest outbreaks. First detectors are an integral part of the system and include growers, Cooperative Extension personnel, crop consultants, pesticide applicators, commercial chemical and seed representatives, Master Gardeners, and others involved in plant growth or management. WPDN provides training to first detectors on techniques for identifying agro-terrorist threats and procedures for reporting pest problems. Carla answers the off-hours shift for the WPDN "helpline" for suspected pest outbreaks in the West, and she recently received a call at 1:30 a.m. with a possible discovery of European grapevine moth in a vineyard. First detectors have access to a Web-based plant pest diagnostic and reporting system that helps them submit plant samples, digital images, and detailed crop information for pest diagnosis. They can report unusual pest occurrences, existing crop conditions, or other information. First detectors also can subscribe to a WPDN agricultural advisory system, coordinated and managed by Dick Hoenisch, that provides warnings and information concerning pest outbreaks or weather conditions that could trigger outbreaks. In addition, WPDN produces a quarterly newsletter for first detectors with updates on pest outbreaks and other pertinent news of the region.

Establishing Effective Communication and Collaboration Networks

Developing communication and collaboration connections among regional experts is a primary function of the WPDN and an overarching priority for Carla and her colleagues, and it is central to everything they do. Carla said, "I'm proud of the standardization, unification, and coordination that have occurred through the hard work of so many people. It's really a success because dozens of people are donating a lot of time and effort above and beyond the call of duty to make this program successful." She is proud of how the barriers have been taken down. "We all—among our partners and stakeholders—know each other a lot better and know better how to work together. Here at the WPDN, we think of ourselves as the mortar in the wall. The bricks are all the important pieces, and we try to fill the gaps," she said.

In fact, Carla said this effort to bring people together is what excites her most about her work. "It feels like it really makes a difference—reducing the conflict and misunderstanding and increasing the teamwork, coordination, and collaboration is what is really exciting to me." She also loves having the opportunity to do new things. In her role with the Epidemiology Subcommittee, she has been leading efforts to standardize the language used in the national repository. She is fascinated by the challenge of using words as a unit of measure. "How do you analyze words and extract meaning out of them? There are a million ways to describe things—how do you best capture all of that? It's a new area of epidemiology that is being pioneered, and I'm very excited about it," said Carla. The more challenging aspects of Carla's work have to do with making the budget fulfill the mission and keeping up with training when there is the inevitable turnover of first detectors.

Carla emphasized that the WPDN is one of many regional programs here at UC Davis that are valuable. She said, "There is an important role in universities for regional and national coordination efforts. Regional coordination and providing a conduit for federal dollars to support state programs is very important." She pointed out that being at the same university makes it much easier for regional and national programs to coordinate with each other. "It's much better when we all collaborate and coordinate to get things done," she said. Carla observed that the various partners and stakeholders in the NPDN come from diverse backgrounds, and said this is true of the IPM Centers as well. She added, "If you look at us as part of this country's emergency response mechanism (i.e., preparedness, prevention, detection, response, and recovery), recovery is IPM. Once something goes beyond mitigation, IPM becomes important as we try to learn how to live with this creature. That's how our programs fit together in my world. That's where we will be at a loss—it will hurt our ability to recover—if the IPM Centers do not continue."

Carla was born in Angola, Indiana, and grew up in Illinois and Michigan. She earned her B.S. degree in horticulture and her M.S. in botany and plant pathology from Michigan State University. Her previous career achievements include founding a company specializing in agriculture information technologies. In her free time, Carla enjoys backpacking, mountain biking, sea kayaking, whitewater boating, and reading. Carla can be reached at ctomas@ucdavis.edu.

State Brief

ARIZ.

New IPM Positions at the University of Arizona

The University of Arizona (UA) will soon be expanding its Extension Integrated Pest Management (IPM) programs through a strategic cluster hire. All UA IPM programs are organized within the Arizona Pest Management Center (APMC). The APMC maintains focused efforts in Community IPM, Agricultural IPM, IPM Assessment, Pest Detection and Diagnostics, and Pesticide Education. Through this cluster hire, we will deploy dynamic Assistants in Extension along with County Agents to help develop and deliver educational programs to statewide clientele across all our program areas. Our IPM programs are staffed by an energetic but limited number of faculty and staff from multiple departments, agricultural centers, and counties. This university investment in IPM will empower us to reach a broader audience and to put IPM knowledge to work in agricultural and community settings. These new, interrelated positions will enhance stakeholder engagement, extension education, and on-the-ground implementation of IPM in diverse environments throughout Arizona.

This strategic cluster hire includes the following positions:

- Assistant in Extension IPM, Vegetables (already hired)
- Assistant in Extension IPM, Communities
- Assistant in Extension IPM, Agronomic Crops
- Agricultural IPM Agent, Central Arizona
- Agricultural Agronomy Agent, Central Arizona
- Applications System Analyst/Developer, Pesticide Database

If you have an interest in any of these positions, please contact Dr. Peter Ellsworth, IPM Coordinator, at peterell@cals.arizona.edu or (520) 381-2225 for more information.

IPM Programs in Public Housing

By Allison Taisey, Program Coordinator, Northeastern IPM Center

In May and June, the public housing authorities of San Francisco, Guam, and Hawaii began their involvement with the U.S. Department of Housing and Urban Development/USDA-funded project, "Delivering IPM Training at Public Housing Authorities." This project is coordinated by the Northeastern IPM Center, but all of the Regional IPM Centers have had an advisory role. To participate, public housing authorities (PHAs) agree to implement IPM for one year in return for receiving a one-day IPM training for residents, staff, and local organizations who will partner with the PHA to support their IPM implementation. The training materials, along with project details, are available at www.stoppests.org.

Dave Hickok, King County, Washington, Public Health Department, and Dawn Gouge, University of Arizona, delivered the training for



Allison Taisey

Toto Gardens public housing facility on Guam.

the San Francisco Housing Authority (SFHA) at their Sunnysdale Development. This 752-unit family development was picked as the IPM pilot site because of high incidences of asthma in the community. Cockroaches can trigger asthma in preschool-aged children. By practicing IPM, the housing authority staff hopes to reduce cockroaches and thus incidences of asthma. This training was noteworthy because of the diverse groups that came together to learn about IPM. Representatives from Breathe Easy California, Californians for Pesticide Reform, the San Francisco Department of Public Health, BayLegal, the Western IPM Center, the San Francisco Department of the Environment, and the Housing Rights Committee of San Francisco all attended the training with Sunnysdale staff. Going forward, these groups have offered to help the property manager with resident education and support.

Carrie Foss, Washington State University, and Dawn Gouge teamed up for back-to-back trainings for the Guam Housing and Urban Renewal Authority (GHURA) and the Hawaii Public Housing Authority (HPHA). These remote locations rarely receive the benefit of this type of program, and neither PHA took the opportunity for granted.

Guam is where America's day begins, and they started their IPM program off on the right foot. The GHURA staff, along with a resident leader, representatives from the University of Guam Extension Service, the Guam Environmental Protection Agency, the Department of Public Health and Social Services, No Ka Oi Termite and Pest Control, and Pacific Pest Control, were wonderful hosts. Guam is a small community, so many of the training attendees had worked together before. In addition to their participation in an engaging training day, at which all GHURA property managers and maintenance heads learned how they could implement IPM, the trainers attended the GHURA staff fundraising dinner. This smaller housing authority will be receiving additional funds to hire the resident leader to support the IPM implementation efforts. Because residents speak so many languages, this multi-lingual resident leader will be pivotal to translating the IPM messages throughout the pilot site community.

After eight days in Guam, the trainers backtracked to Oahu to conduct training at HPHA's largest and oldest development. The 748-unit Asset Management Project 40 (AMP 40) property has many pest problems, but it is poised for rapid success through IPM. In addition to starting IPM, AMP 40 has many changes planned for the 2010–2011 year. The buildings will have all of their elevator shafts and trash chutes replaced, will begin a comprehensive IPM pest control contract, and will get a resident board of association started. Staff, residents, and contractors will approach their work using IPM principles and will work together to improve the conditions at AMP 40. Attending the training day were HPHA and Realty Laua staff, the resident board leaders, and representatives from the two pest control companies who bid on AMP 40's IPM pest control contract RFP. Also attending were representatives from the Hawaii Department of Public Health, the University of Hawaii at Manoa, and the on-site social service agencies. A unique partnership came out of this training: the Hawaii Department of Health's Asthma Control Program will be awarding \$5,000 to the resident board so that this group can work in the AMP 40 community to get other residents to do their part in IPM.

Although these three sites vary in number of units, building type, and pest pressure, they all seek to provide safe, decent, and affordable housing for their residents. Everyone can agree that being pest-free is a worthy goal. Despite some initial skepticism, by the end of the training day, all three training audiences could see how a team approach to IPM can be used to eliminate pests and make homes healthier.

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Allison Taisey

Training session at Toto Gardens, on Guam. A multilingual resident leader will be hired to support the IPM program and translate the IPM messages through the pilot site community.

PMSP Update

Ongoing:

- Citrus (California)
- Cucurbit Crops (Hawaii, Guam)
- Desert Turf (Arizona, Nevada, and Southeastern California)
- Grass Seed (Idaho, Oregon, and Washington)
- Low Desert Cotton (Arizona and Southeastern California)
Completion expected in January 2011
- Orchid (Hawaii): Workshop planned for November 2010
- Pear (California): Being updated
- Seed Potato (Alaska, California, Colorado, Idaho, Montana, Oregon, Washington)
- Turf (Hawaii): Currently being reviewed

Completed:

- Bivalve (Oregon, Washington): Completed in July 2010

WIPMC Advisory and Steering Committees Gathered in June for Last Face-to-Face Meeting

By Diane Clarke

Members of the Western IPM Center's Advisory and Steering committees met in Portland on June 24–25. These two standing committees provide navigation for the WIPMC. The Advisory Committee, whose members represent a wide range of stakeholders that link the WIPMC to stakeholder needs and priorities for pest management programs in the West, provides vision and guidance. The Steering Committee, a subgroup of the Advisory Committee, gathers information from stakeholders, determines broad policy goals and priorities, recommends WIPMC budgets, and provides direction for timely and effective WIPMC management. These committees have met annually since the WIPMC's inception. The June meeting was their last face-to-face gathering under the present WIPMC configuration, as current WIPMC funding ends in September, 2011, and Director Rick Melnicoe and Associate Director Linda Herbst will be retiring in June, 2012.

The chief agenda items at both the Advisory and Steering Committee meetings centered around funding changes at the national level that directly affect all of the Regional IPM Centers, including the WIPMC. President Obama's 2011 budget zeroes out all of the "406" programs, including the Regional IPM Centers, which means that if the work of the Centers is to continue beyond current funding, other sources of funding would need to be found. In the recent massive reconfiguration of funding priorities at the USDA-National Institute of Food and Agriculture (NIFA), as embodied in their 2010 Agriculture and Food Research Initiative (AFRI) RFAs, it is difficult to envision where the Centers might fit in. In light of these challenges, members of the Advisory and Steering committees were asked to discuss, based on their wide stakeholder contact, the role of the Centers, their value within the nation's response to the challenges of pest management in various settings across the country, by what other avenues the work of the Centers might be carried out if Center funding is discontinued, and what input they would give to USDA-NIFA as the next AFRI RFA is crafted. Following are highlights from their responses to these questions.

- The most unique and important value of the Centers is their regional structure and the infrastructure they have developed over many years that links IPM practitioners and programs across multiple states to work together on stakeholder-communicated pest management challenges.
- The Centers serve a pivotal role in their regions as they coordinate these multistate collaborations, enabling stakeholders in the region to find synergies and address problems with multistate solutions instead of each state working by itself.

- The Centers foster new projects and collaborations across their respective regions. Center-sponsored grants fund multistate working groups that become engines of innovation. These working groups generate knowledge and are catalysts for new ideas, projects, and solutions. They leverage small amounts of funding, enabling cascading outcomes and impacts in the regions.
- The Centers provide a priority-setting mechanism for the regions via their contact with local stakeholders. And in the context of those priorities, resources can be mobilized quickly for emerging and critical issues in the region through small seed grants for specific, focused projects proposed by stakeholders.
- The Centers are an efficient and critical nexus between local needs in the regions and federal agency funding and priorities. They serve as a kind of receiving and broadcast antenna, able to be in touch with stakeholder needs in the regions at the most granular level and then able to communicate those needs to federal agencies for their consideration in setting priorities. And because of the unique infrastructure the Centers have built in the regions, they are able in a very tailored way to connect federal grant funds with local stakeholders, ensuring the most efficient and effective use of federal dollars.
- By bringing practitioners from various disciplines and emphases together in conversation and collaboration, the Centers contribute to the national goal to understand and approach agriculture as a complex system and to approach problem-solving by engaging the expertise and perspectives of the many parts of the system in dialog with one another.
- The Centers provide a link to underrepresented areas of the country, like the Pacific territories.

The WIPMC has passed many elements of this input on to the Deputy Administrator of USDA-NIFA's Competitive Programs Unit, Dr. Deborah Sheely (see Director's Comments).

The WIPMC's work over the years would not have been possible without the Advisory and Steering committee members' committed presence, their perspectives, and their guidance. At the end of the meetings, they were presented with certificates of appreciation for their time and service on the committees. As an added token of recognition for their contributions to the Center, committee members were each given the second edition of the University of California Statewide IPM Program's manual, *Pests of Landscape Trees and Shrubs*.

State Brief

CALIFORNIA

UC IPM Green Bulletin Debuts

In July, the University of California's Statewide IPM Program began publishing the UC IPM Green Bulletin, an electronic newsletter for landscape and structural pest management professionals (PMPs), with contributions from UC academics. Articles highlight new IPM techniques and other practical information to help PMPs keep pesticides out of urban waterways. Early issues focused on effectively managing ants while reducing pesticide use and runoff, and the most recent Green Bulletin presented ways to use pervious hard surfaces (surfaces that allow water to pass through) to reduce pollutants carried in urban runoff from irrigation and storm water. Issues are posted at www.ipm.ucdavis.edu/greenbulletin.

Combating the European Grapevine Moth

University of California Cooperative Extension farm and IPM advisors are engaged in an all-out effort to combat the European grapevine moth (EGVM), first trapped in September, 2009, and since trapped in eight counties. EGVM is the primary pest on grapevines in Europe and can be expected to cause significant economic harm to California's diverse grape industries if it becomes established.

UC IPM has partnered with USDA Natural Resources Conservation Service to develop a set of outreach materials about EGVM for the upcoming meeting and field seasons. To date, UC advisors have conducted trials of reduced-risk pesticides, evaluated monitoring tools to use in vineyards under mating disruption, and worked to validate several degree-day phenology models for EGVM. They've also given countless presentations and prepared articles for industry press.

But decisive action has dramatically reduced 2010 EGVM populations in Napa Valley from about 100,000 moths caught in the first generation to only about 1,000 moths in the second. Using information drawn from traps and carefully-monitored vineyards, growers are being advised in seven quarantine counties about when it is best to apply sprays for each generation. Well-timed treatments of reduced-risk insecticides and voluntary use of mating disruption in about 12,000 acres are believed to be responsible for the huge EGVM reduction after the first generation in Napa Valley.

By avoiding the use of organophosphates and pyrethroids to control EGVM, growers have been able to preserve their ongoing vineyard IPM programs and protect important natural enemies that keep several other grapevine pests under control. Organic growers have been able to continue their organic status through use of approved products.

Center Highlights

WIPMC Competitive Grants Applications Received

In July, the Western IPM Center released its Request for Applications (RFA) for “Western IPM Center 2011 Competitive Grant Programs.” Programs available in this RFA included: IPM Work Groups; Outreach and/or Publications; and Surveys/Crop Profiles, and applications were due on Friday, September 10. A total of 18 applications were received, including 4 for IPM Work Groups, 12 for Outreach and/or Publications, and 2 for Surveys/Crop Profiles.

Work Group Proposed on BMPs to Reduce Pesticide Impacts on Water Quality in the West

Western IPM Center staff have followed up on regional interest—expressed at April’s IPM and Water Quality Symposium—in bringing together IPM and water quality personnel for collaboration in the West. A draft proposal for the formation of a Western Region Education/Extension and Research Activity (WERA) group focusing on Best Management Practices (BMPs) to Reduce Pesticide Impacts on Water Quality has been prepared for submission to the western Agricultural Experiment Station Directors. Lead writers of the proposal were Robert Mahler, Professor of Soil Fertility and the University of Idaho’s representative in the Pacific Northwest Regional Water Program; Ronda Hirnyck, Extension Pesticide Coordinator, University of Idaho–Boise Center; and Linda Herbst, Associate Director of the Western IPM Center. The draft proposal was circulated to interested stakeholders in Alaska, California, Idaho, Nevada, Oregon, Washington, and Wyoming, who have committed their support. The Experiment Station Directors will consider the proposal early next year.

WIPMC Informational Flyers Available Online

Visit <http://www.wripmc.org> to view or download the following one-page informational flyers about the Western IPM Center:

- *WIPMC Collaborations and Partnerships* (new)
- *About the WIPMC* (updated)
- *WIPMC Funding* (updated)
- *WIPMC Work Groups* (updated)
- *WIPMC Leveraging* (updated)

Seven Regional IPM Grants Awarded in Western Region, Totaling \$658,066

The Regional IPM Competitive Grants Program (RIPM) is administered by the land-grant university system’s four regions in partnership with USDA-NIFA. In fiscal year 2010, the Western Region RIPM program is supporting three types of projects: Research, Extension, and Joint Research-Extension. The following 2010 proposals have received grant awards:

Alaska Potato IPM Scouting Manual: A Pocket Guide in English and Russian (Extension, \$28,329)

Principal Investigator: Ronda Hirnyck, University of Idaho

Sampling Plan Development and Spiral Analysis for *Persea* Mites in Avocados: A Model System for Crop Pests in the Western Region (Research, \$95,919)

PI: Mark Hoddle, University of California, Riverside

Integrated Approaches for Management of Giant Reed and Restoration of Riparian Habitats (Research, \$99,959)

PI: Jodie Holt, University of California, Riverside

Demonstration and Implementation of Integrated Pest Management in the Production of Bedding and Container Color Plants (Extension, \$50,377)

PI: Michael Parrella, University of California, Davis

Development of a Macroarray for Rapid Detection and Differentiation of Onion Bulb Rot Pathogens (Research, \$179,253)

PI: Brenda Schroeder, Washington State University

IPM Adoption: Motivations, Barriers, and Subjective Risk Assessments in Contract Agriculture (Research-Extension, \$179,168)

PI: Douglas Walsh, Washington State University

Assessing Long-Term Impacts of Yellow Toadflax Invasion (Research, \$25,061)

PI: Sarah Ward, Colorado State University

Mark Your Calendar

2010

October

- 2010 National Plant Diagnostic Network IT/Diagnosticians/Epidemiology Meeting, October 12–13, Chandler, Arizona.
http://npdn.org/meeting_information

November

- 2010 Western Plant Diagnostic Network Regional Meeting, November 9–10, Davis, California.

December

- Entomological Society of America 58th Annual Meeting, December 12–15, Town and Country Hotel & Convention Center, San Diego, California.
<http://www.entsoc.org/am/fm/index.htm>

2011

- 2011 National Plant Diagnostic Network meeting, November 6–9, 2011 (field trip November 10), San Francisco, California.

2012

- 7th International IPM Symposium, March 27–29, 2012, Memphis, Tennessee.

For more information, see “News/Announcements” and “Funding Opportunities” on the WIPMC Web site.

Regionality—from page 3

to USDA have included development of stakeholder needs and assessments, management of the Regional IPM Competitive Grants program, the conducting of relevancy reviews of USDA grants (Regional IPM and Pest Management Alternatives Program), the establishment of priorities for grants, and connection of stakeholders to USDA programs.

Impacts for Stakeholders. Stakeholders have gained a strong voice in USDA programs and have benefited from funding of local needs. They have gained a regional perspective through their participation in work groups, PMSPs, and WIPMC committees, and through this involvement have found new partners for collaboration to address the diverse pest management needs of the West.

All of these benefits and impacts in the West were facilitated and supported by the underlying philosophy of Regional IPM Centers as embodied in the programs and services of the Western IPM Center. It would be challenging to envision such a scope and specificity of stakeholder-responsive accomplishments in the West—or the many similar successes in the other unique regions of the country—in the absence of the region-specific communication, coordination, stakeholder access, linkages, and leveraging provided by the Regional IPM Centers.

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