

## Western IPM Center Program

### Structural Pest IPM Workgroup Report

#### A. Grant Data

- Grant #: Prime Award No. 2003-51120-02098; Subaward No. K009607-WA6
- Title: Western Region Structural Pest IPM Work Group
- Type: Workgroup Project
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- Team members: Art Antonelli (WSU Puyallup), Dan Suomi (Washington State Department of Agriculture), Bob York (York Exterminators), Ed Bechinski (University of Idaho), John Klotz (University of California Riverside), Mike Rust (University of California Riverside), Sylvia Kenmuir (Target Specialty Chemicals), John Scott (Colorado Department of Agriculture), Ted Shapas (EcoWise Certified), and Julian Yates (University of Hawaii).
- State(s) involved: Washington, California, Colorado, Hawaii, and Idaho
- Funding year: 2006
- Funding amount: \$9,750

#### B. Nontechnical Summary

Washington State University Puyallup is currently constructing a Western Region Structural Pest Research and Demonstration Facility where inspectors and pest managers will be trained in the identification of structural pests, conditions conducive to pest infestations and IPM. Our goal is to reduce the number of inaccurate wood-destroying organism inspections and the potential health risks from pesticide misapplications through education. A regional work group comprised of stakeholders working in indoor IPM is needed to coordinate the development of the Structural Pest IPM Program and the 2007 IPM curriculum, and prioritize research efforts for the facility. The work group will be formed with university specialists, state regulatory staff, professional applicators and inspectors representing many western region states to ensure a regional perspective for the facility's urban IPM program. Regional communication and collaboration between the structural pest stakeholders will be increased.

#### C. Objectives

##### Objectives and Procedures

The overall objective of the Structural Pest IPM Work Group is to develop the Structural Pest IPM Program and prioritize research projects to be conducted at the Structural Pest Research and Demonstration Facility.

**Objective 1.** Establish a Structural Pest IPM Work Group to enhance communication and collaborations regarding structural pest IPM in urban residences and schools. The work group will have representatives from multiple states in the Western Region and will include university specialists, state regulatory staff, pest management professionals and structural pest inspectors, realtors, and professional association members.

*The eleven-member work group was established with a diversity of stakeholders from five western states and included Art Antonelli (WSU Puyallup), Dan Suomi (Washington State Department of Agriculture), Bob York (York Exterminators), Ed Bechinski (University of Idaho), John Klotz (University of California Riverside), Mike Rust (University of California Riverside), Sylvia Kenmuir (Target Specialty Chemicals), John Scott (Colorado Department of Agriculture), Ted Shapas (EcoWise Certified), and Julian Yates (University of Hawaii.)*

**Objective 2.** Assess regional priorities for demonstration workshops and training programs at the Structural Pest Research and Demonstration Facility.

*During the January teleconference and follow-up emails, we identified the top structural pests for each state or geographical area that would need to be included in the Structural Pest IPM curriculum.*

- *Washington, Oregon, northern California: Ants: carpenter and moisture ants, Termites: subterranean and dampwood, Wood rot, Beetles, General: odorous house ants, spiders & cockroaches (E WA)*
- *Southern California: Ants: Argentine, Red imported fire ants & native fire ants, Termites: drywood, subterranean, General: cockroaches, fleas, rodents*
- *Idaho: Ants: carpenter ants, Termites: subterranean, General: spiders*
- *Nevada: Ants: Argentine ants, Termites: subterranean, General: cockroaches, fleas, rodents*
- *Arizona: Ants: Argentine ants, Termites: desert subterranean (Sonoran desert), subterranean (mnts), General: Indian house cricket, cockroaches*
- *Hawaii: Ants: Red imported fire ant, white-footed, big-headed, Termites: drywood (5 spp), Formosan subterranean, Vastata, Western, General: cockroaches (minor), bedbugs*

*It was determined that there is a need for hands-on training of inspectors, trainers of companies and technicians on the regional pest identification, damage, IPM and demonstrations of application techniques.*

**Objective 3.** Develop a detailed education plan for the Structural Pest IPM Program. Determine training approaches and outcome measurement techniques while considering the unique design of the Structural Pest Facility.

**Objective 4.** Plan and conduct a two-day pilot Structural Pest IPM Workshop at the Structural Pest Facility.

*The curriculum for the pilot training was developed during the May face-to-face meeting in Oakland. We determined that owners and managers of pest management companies who are in leadership roles in their state associations would be invited to the pilot training program audience with the group size limited to 25. The topics and agenda (below) were finalized with each work group member participating in the workshop on one or both days. The feedback session on each day was included to evaluate the pilot training and solicit input from participants on future training needs. Pesticide license credits were applied for in Washington, Oregon, California, New Mexico, Colorado, Montana, and California.*

## ***Integrated Pest Management Training For Structural Pest Managers***

Organized by the  
Western Region Structural Pest IPM Work Group

October 3 and 4, 2006 at WSU Puyallup

<b>October 3</b>		
8:30– 8:40	Introduction	Carrie Foss
8:40– 9:00	Wood-destroying Organisms Identification Pre-Test <i>An opportunity to test your skill at structural pest identification and the damage they cause.</i>	
9:00- 9:50	Laws and Regulations; Pesticide Labels <i>Explanation of Federal and State laws related to pesticide use and structural pest inspections. Understand label language including application restrictions, precautionary statements and environmental hazards</i>	John Scott
10:00–10:15	Understanding Integrated Pest Management for the Pest Management Professional <i>Learn how managing pests with an integrated approach can result in effective structural pest management and reduced human health and environmental concerns.</i>	Jack Marlowe
10:15-10:30	General Entomology <i>Pest identification is the first step in IPM; become familiar with pest classifications</i>	Ed Bechinski
10:30 -12:00	Conducting an Inspection New Technologies <i>What are the basic elements in the inspection process? Learn how to do an inspection in this hands-on opportunity alongside an experienced structural pest inspector in a building and crawl space. How to use a moisture meter and other technologies.</i>	Duane Roundy Rene LaMarche
12:00–12:30	Lunch	Catered
12:30– 1:20	Wood-destroying ants and Argentine ants; inspections and management <i>This topic will cover the identifying characteristics of wood-destroying ants and Argentine ants and how to manage an infestation with an integrated</i>	John Klotz

	<i>approach.</i>	
1:30- 1:45	Ants: Moisture ants; inspections and management <i>Moisture ants infest structures when excessive moisture is a problem. How do you identify them and how do you control them?</i>	Art Antonelli
1:45- 3:00	Beetles: inspections and management (with 10 minute break at 2:20 pm) <i>Several species of wood-infesting beetles, their habitat, damage and management will be covered.</i>	Dan Suomi
3:00–3:30	Feedback Discussion <i>How can structural pest managers be trained in accurate identification, inspections and IPM?</i>	Ted Shapas
<b>October 4</b>		
8:30– 8:40	Introduction	Carrie Foss
8:40– 9:10	Termite biology: Western subs, dampwood <i>Learn the identification, habitat and damage of both Western subterranean and dampwood termites.</i>	Art Antonelli
9:10- 9:40	Formosan termites <i>Where are Formosan termites a problem and how much of a problem can they cause?</i>	Julian Yates
9:50–11:00	Termite inspections and management <i>What to look for in a termite inspection and how to manage termites in a structure.</i>	Mike Rust Bob York
11:10–11:45	WDO Identification Post-test <i>An opportunity to re-test your skill at structural pest identification and the damage they cause. Did you improve your score as a result of this course?</i>	
11:45–12:15	Lunch	Catered
12:15- 2:50	Calibration and Application Principles <i>Demonstration of calibrating a hand sprayer, backpack sprayer and a rig with sprayer. Learn what formulations to use for different pests and locations. Safety equipment will also be covered.</i>	Brad Cyier Sylvia Kenmuir
3:00 – 3:30	Feedback Discussion <i>How can structural pest managers be trained in accurate identification, inspections and IPM?</i>	Ted Shapas

**Objective 5.** Develop the 2007 IPM curriculum for the workshops to be held at the Structural Pest Research and Demonstration Facility using the Structural Pest IPM education plan as a guideline.

*Four training programs were planned for the WSU Puyallup Structural Pest Research and Demonstration Facility during 2007 as a result of input from the participants of the pilot training on October 3 & 4. A hands-on training for technicians will be held during April and will cover conducting inspections, identification of structural pests and their damage, and effective IPM techniques for structural pests. Three pre-license training programs will be held at WSU Puyallup, two for structural pest inspectors and one for pest management professionals.*

*The Structural Pest IPM Work Group consider the WSU Structural Pest Facility to be an ideal location to hold an EPA PREP training course for state inspectors.*

**Objective 6.** Prioritize regional research needs related to Structural Pest IPM and identify potential funding sources.

*The work group identified alternative control techniques as the priority research need for structural pest IPM in the western United States. Alternatives to perimeter applications could reduce potential runoff and water contamination. For example, additional research on ant control and baiting techniques for termites are needed. California Department of Pesticide Regulation was identified as one funding source.*

#### **D. Results**

- Conferences, surveys, special projects, attendance at other events

*The new Structural Pest Facility was finished and ready for the first training event on October 3 and 4. Carrie Foss, Urban IPM Coordinator, Art Antonelli, Extension Entomologist, and Rebecca Hines, Extension Coordinator, offered this training class for structural pest managers and inspectors at the WSU Puyallup Facility. Experienced pest management and inspection business owners were anxious to see this building since it is the only training structure of this type in the western United States. These professionals traveled from New Mexico, Arizona, Colorado, Montana, Oregon and Washington to experience our (WSU) style of training as a possible training venue for their technicians. Some of them would like to see a similar training Facility in their state and most were impressed with the training modules (topics). Experts in Entomology and in structural pest IPM from California, Colorado, Hawaii, Idaho, and Washington presented at this October workshop as part of a WSU Urban IPM Workgroup project.*

*At this workshop it was stressed that IPM in the urban environment requires accurate identification of the pest, evaluation of the damage or health threat posed by such infestations, and a determination of conditions conducive to infestation. With the presentations and utilization of the new Structural Pest Facility, inspectors and pest management professionals obtained hands-on experience identifying wood destroying organisms, their damage, and the conditions that are conducive to infestation by examining damaged wood, insect frass, and other signs. It is certain that this training venue will continue in the future. Inspectors and pest management professionals will learn to identify carpenter ants, velvety tree ants, subterranean and dampwood termites,*

*anobiid and other wood attacking beetles, moisture ants and other pests by observing living and dead insect specimens using microscopes and other diagnostic tools available at WSU Puyallup.*



- Website and Other Stakeholder Outreach

The WSU Structural Pest IPM website was developed and launched during the work group project period. The website (<http://structuralpest.wsu.edu>) provides information to clientele and stakeholders on education and resources for structural pest IPM.

### **E. Appendices**

- An article related to the Work Group project is found in WSU Extension Today on page 3 (attached).
- DVDs were created from the Structural Pest IPM training held at WSU Puyallup on October 3 & 4, 2006. The DVDs include the powerpoint presentations of the speakers. The DVDs are in draft form and will be sent to the Western IPM Center when finalized.
- Evaluation results were compiled from the feedback session at the Structural Pest IPM pilot training and used to determine future regional training needs (attached).