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Five Nominees Receive This Year's Friends of IPM Awards

The end of 2010 brought some good news to three individuals and two groups who won this year's Southern Friends of IPM Awards. This year, we had nominations in every category except Lifetime Achievement, and in a few cases, very stiff competition.

The Bright Idea award goes to the Okanola Project, a collaboration between Oklahoma State University, Kansas State University and the commercial seed industry. Initiated in 2003, the Okanola Project introduced winter canola to Oklahoma farmers to rotate with wheat in order to solve weed problems. After trying to assist wheat farmers who were progressively losing their yield to weeds and annual insect pests, weed scientist Dr. Thomas Peeper discovered that winter canola could help farmers end the pest cycle. Canola, a non-grass crop, would not be attractive to the pests who repeatedly visited the fields, cleaning the soil of weed seeds and keeping insect pests away during the next growing season.

After some production challenges, growers began to see cleaner fields of wheat after planting their wheat crop following canola. In 2006, the state IPM program started providing some funding for program needs. A mill that crushed cotton seed began crushing canola seed. The number of canola producers has grown from 6 in the initial pilot project to over 200. Growers who previously were skeptical about growing something other than wheat have seen canola increase their wheat profits once they rotate back to wheat.

Extension IPM Specialist Patty Lucas at the University of Kentucky won the IPM Implementer award.

"Ms. Lucas is the driving force behind the development of documents through the Center grants," writes Kentucky IPM Coordinator Doug Johnson, who nominated her. "Crop Profiles and Pest Management Strategic Plans are generally developed through the UK-IPM working groups, but it is Patty Lucas who develops the grant requests, organizes the clientele meetings, and oversees the production of the resulting documents."

When she's not chasing down grants, Lucas is counting insects. For several projects, including a fire ant project and Plum Pox



Patty Lucas (L) and Jordan Price (R) look at trap catches for codling moth

virus survey with the Office of the State Entomologist and an EPA project on organophosphate use reduction, Lucas visits farms to collect sticky traps and teach the growers how to use the scouting instruments once the research projects are over.

When she isn't crawling along school walls looking for gaps, IPM Educator winner Janet Hurley is teaching workshops on how to use IPM in schools. Coordinator for School IPM at Texas AgriLife since 2001, Hurley has not only provided guidance to Texas school IPM coordinators on how to manage pests, but she has also been a valuable resource regionally and nationally. She co-chairs the

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Southern Region School IPM Working Group and serves on the national School IPM committee. She networks with many of the state and national school maintenance professional

organizations as well to promote the idea of school IPM beyond the school administrations.

In addition to the regular assortment of cockroaches, ants, rodents and fire ants that typically infest schools, Janet has had a unique challenge in Texas—bats. She has worked with the state Department of Health Services to give a series of workshops on dealing with bats in schools and has had to reframe some of her thinking on how to inspect a school for pests (see the story on p. 6). Recently she has begun working with Junior Master Gardeners on how to incorporate IPM in school gardens safely and legally.

This year's Pulling Together award goes to a team that has been together for many years



but has become well-known among cotton producers in the last 10 years with their work on the tarnished plant bug. The Mid-South Entomologists involves entomologists from the land grant universities in Arkansas, Mississippi, Louisiana, Tennessee and

Missouri, along with researchers from the USDA Agricultural Research Service in Mississippi.

As the tarnished plant bug began to all but replace the boll weevil in pest status, the Mid-South Entomologist working group worked together for three years to establish a regional threshold for tarnished plant bug and to test more effective scouting techniques (see story on p.3). Their research culminated in a regional threshold for tarnished plant bug and distributions of black cotton drop cloths for sampling. They are currently using the research model to revise thresholds on soybeans.

Small fruit farmers have benefited the past few years from Future Leader winner Hannah Burrack's energy and versatility. In addition to traveling around the state delivering workshops, Burrack reaches those she hasn't met through a weekly blog, <http://ncsmallfruitsipm.blogspot.com/>. Probably the most important contribution she has made involves her monitoring of the invasive pest spotted wing drosophila (*Drosophila suzukii*), a devastating pest with a broad appetite that has reduced yields and profits in the Northwest.

Through an extensive monitoring network in North Carolina, Burrack was able to detect the entrance of the pest into the state. Because the pest was caught before its populations had become massive, North Carolina growers are more aware of the need to monitor closely this year. Burrack and her research group plan to begin work on the pest's biology this year and test new management strategies. They are also monitoring for blueberry maggot and are cultivating some biocontrol options for the pest.

One Voice, Many Partners: Mid-South Entomologists Work Together on Pest Issues

In 2005, a group of entomologists from four mid-southern states gathered to address a problem that was plaguing cotton farmers. The tarnished plant bug was quickly replacing the boll weevil as a major pest of cotton, and growers were relying on outdated thresholds by which to time their treatments. Because tarnished plant bug had been a minor pest during the boll weevil era and was managed with the same pesticides that controlled the boll weevil, tarnished plant bug thresholds had not been revised since the 1980s. In addition, each state has its own threshold, so growers in Mississippi were using a different standard from their neighbors in Louisiana. The group of entomologists decided that establishing thresholds for tarnished plant bug would be their first project.



L-R: Kelly Tindall, Angus Catchot, Scott Akin, Scott Stewart, Gus Lorenz, B. Rogers Leonard, and Jeff Gore

“The tarnished plant bug was the catalyst to working as a cohesive group,” says Scott Stewart, Tennessee IPM Coordinator and extension entomologist with the University of Tennessee.

On January 5, during the Cotton Beltwide Conference, the group received the 2011 Southern Friends of IPM Pulling Together

award from the Southern Region IPM Center. The Pulling Together award is an annual award given to a group that has “pulled together” people from many states and disciplines to accomplish a common goal. The Mid-South Entomologist Working Group has done that very successfully.

The Mid-South Entomologist group began in the mid-1980s to discuss how some of the pest “disasters” that were plaguing growers in Arkansas, Mississippi, Louisiana and Tennessee. Although the boll weevil was beginning to diminish in importance, other cotton pests were beginning to rise, some causing as much damage as the boll weevil. One of them, *Heliothis virescens*, the tobacco budworm, was becoming a particular menace, as it was developing resistance to many of the insecticides traditionally used to control them.

Using their own funding, the group meets regularly to compare research and extension initiatives and update each other on new findings. Gus Lorenz and Scott Akin, extension entomologists from the University of Arkansas, turned to researchers B. Rogers Leonard from Louisiana State University and Jeff Gore and Don Cook from Mississippi State University. University faculty turned to federal researchers Ryan Jackson and Gordon Snodgrass from USDA Agricultural Research Service. The group gathers in a remote, retreat-like location in Casscoe, Arkansas so they can openly discuss the issues and talk frankly about insect management problems.

“As you can imagine, with a group of entomologists there are always differences in opinions and how to deal with problems,” says Lorenz. “But it’s sort of like the “what happens in Las Vegas stays in Las Vegas situation. Discussions can often become

Mid-South Entomologists (continued from previous page)

heated and we may have differences in opinion on some issues, but we realize that if we work as a team, we can work our way through those differences, let the research speak and maintain a unified front for our clientele.”

“There weren’t many opportunities for scientists across states to talk about pests,” says Leonard. “This meeting is conducted using our own funding. We thought enough about our growers and the importance of these issues to think it was going to pay off.”

In 2005, the relationships they had formed did indeed pay off. The tarnished plant bug turned the group’s discussion into a plan of action.

“This formed the catalyst to carry out the research and develop an educational program to help our clientele,” says Lorenz.

The tarnished plant bug entered the group’s radar when each entomologist began fielding questions from crop consultants. Many wondered about thresholds, which had not been revised since the 1980s. Others asked about scouting and trapping methods. Angus Cachot, extension entomologist at Mississippi State University, said that these questions spurred the group to find answers.

“We knew these problems were common to the mid-South,” Cachot says.

Cotton, Inc. funded much of the research on the pest. By the end of the project, the group had developed a common threshold and sampling system for tarnished plant bug. (read the full story about this project in the [Spring 2010 issue online](#)). With a consistent threshold and standard sampling program across state lines, growers and consultants felt more secure about timing their treatments.

Besides gaining the faith of growers and consultants, the Mid-South Entomologists had developed a template for future projects. The acceptance by growers and consultants of this regional threshold and sampling program has been phenomenal.

“We’ve taken this same model to a lot of other projects,” says Stewart. “We’ve used it to establish thresholds for multiple pests on soybean and corn as well.”

In 2007 the group gained a new member: Dr. Kelly Tindall, a research entomologist from the University of Missouri. Because her primary responsibilities involve research, she turns to Stewart and Lorenz to get a feel for what faces growers in the field. Stewart and Lorenz depend on Tindall to provide leadership in developing research to solve insect management problems and provide data for educational programs and training.

“Everybody’s helping everybody, and we’re all working together,” Lorenz says.

Currently the group is working on several new projects, including an evaluation of thresholds on soybeans for several economic pests and evaluation of insecticidal and nematocidal seed treatments in cotton and soybean.

Members of the Mid-South Entomologist Working Group include:

University of Arkansas

Dr. Gus Lorenz
Dr. Scott Akin
Dr. Glenn Studebaker

Mississippi State University

Dr. Fred Musser
Dr. Angus Catchot
Dr. Don Cook
Dr. Jeff Gore

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University of Tennessee

Dr. Scott Stewart

Louisiana State University

Dr. B. Rogers Leonard

University of Missouri

Dr. Kelly Tindall

USDA-ARS, Stoneville, MS

Dr. Ryan Jackson

Dr. Gordon Snodgrass

SRIPMC and the Social Network

In September 2009, SRIPMC started a blog and a Twitter account. Here's a look at how we did:

The stats helper monkeys at WordPress.com mulled over how this blog did in 2010, and here's a high level summary of its overall blog health:



The *Blog-Health-o-Meter™* reads: This blog is on fire!

Our most popular topic last year: lionfish



A Boeing 747-400 passenger jet can hold 416 passengers. This blog was viewed about **13,000** times in 2010. That's about 31 full 747s.

In 2010, there were **54** new posts, growing the total archive of this blog to 71 posts. There were **67** pictures uploaded, taking up a total of 7mb (hint, we may have to pay soon for more space). That's about 1 pictures per week.

The busiest day of the year was February 25th with **238** views. The most popular post that day was [Venerable NY IPM Program On the Ropes](#).

Where did they come from?

The top referring sites in 2010 were [sripmc.org](#), [pest.ceris.purdue.edu](#), [insectsinthecity.blogspot.com](#), [google.com](#), and [twitter.com](#).

Some visitors came searching, mostly for **lionfish**, **bed bugs concern**, **kudzu bug**, **lion fish**, and **ccd bees**.

SRIPMC and Social Networking (continued from the previous page)

Attractions in 2010

These are the posts and pages that got the most views in 2010.

1. [Venerable NY IPM Program On the Ropes](#) February 2010
1 comment
2. [Invasive Species in Aquatic Habitats – Altering the Predator-Prey Balance](#) August 2010
3. [Lionfish: A new delicacy, or an increasing threat?](#) September 2010
4. [Bed Bugs: An Increasing Public Health Concern](#) August 2010
1 comment
5. [Killing bed bugs in your laundry](#) March 2010
1 comment

Twitter

Along with the blog, we opened a Twitter account and have been “Tweeting” daily news and events. Here’s a look at SRIPMC on Twitter:

378 Tweets—Following 119 people—112 followers

Followers come from all over the country and include state extension departments, gardening shops, pesticide companies, USDA departments and the IPM Symposium.

Texas School IPM Specialist Janet Hurley is Now “Up to Bat”

The first call came one afternoon about eight years ago, on an otherwise ordinary day.



“Janet, we think we have bats in our elementary school. What do we do?”

Bats. In her 2 years at Texas AgriLife as coordinator of school IPM, Janet Hurley had never run into bats before. But she said she would look

into it.

That day in 2003 began a series of new requests, new collaborations and new workshops—over bats. After that call, Hurley began doing research on bats and going over

to the school and inspecting areas that she had never inspected before. She was used to inspecting walls just above the floor and crevices under doors and along windows. Bats usually roost along the rooftop. So she had to climb up onto the roof to look at the gutters.

She discovered that a quarter of an inch gap behind the gutter above the kindergarten room was letting in families of bats.

“When you seal a building, you seal it to keep out mice and rats. Now you also have to seal up dime size holes in the roof,” Hurley says.

In the wild, bats are beneficial mammals. Their main diet consists of moths, so farmers

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Janet Hurley and Bats (continued from previous page)

battling worm pests are grateful for a nearby bat colony. Some farmers even keep bat houses on their property to attract bats to eat pests. In fact, Hurley says, most bats roost nearby agricultural fields. As urban life has slowly dripped into agricultural areas, bats are finding new warm, safe homes in schools and attics. Residents and school professionals, concerned about rabies and the distraction of having bats flying around in classrooms or hallways, don't look kindly on a visiting colony of bats.

Hurley didn't realize how extensive the bat problem was until she received a call from the state biologist with the Zoonotic Division of the Department of State Health Services in 2005. Partnered with the Division of Parks and Wildlife, the Zoonotic Division wanted to give a series of workshops in Austin on bats.

"I have since learned that bats are everywhere," Hurley says. "From that program, we wrote our first management plan for bats."

But the trainings didn't stop after that collaboration. She continued joining Parks and Wildlife and other agencies for trainings. When she polled workshop attendees, about 90 percent of them confirmed they had seen bats in or around their buildings. Then, the sole state bat biologist left her job, leaving Hurley as one of the few "bat experts" in Texas.

To update some of the state publications, Hurley produced a booklet, *Bat Control in Schools*. Paired with a poster on rabies, the booklet made a splash at many of the state health agencies and at schools. It became one of the leading documents in the state on identifying and managing bats in buildings. And Hurley had to retrain herself during her school IPM inspections.

"When I look for bats, I look up at the roof-lines," she says.

In the past few years, she has earned a new title: "Bat Lady." Now, when school IPM coordinators find bats in their schools, they call Hurley. And she carries a string of tales with her to each new training.

In one school district, a colony of Mexican free-tail bats that resided under a bridge escaped the cold night air in the five schools that lay in a five-mile radius of the bridge. Six bats in that colony tested positive for rabies. In fact, the scare of rabies has increased the urgency of managing the bat populations in the schools.



Mexican free tail bat

"Sometimes bats don't want to live under a bridge," says Hurley. "They want to live in buildings because they're warm. If the bat comes in and it's warm, the bat is happy."

In another district, a bat colony moved between an elementary school and the county courthouse. Hurley suggested building bat houses to give the bats an alternative shelter.

"We've got to live with them," she says. "They're beneficial; they'll pollinate and eat insect pests. If bats realize there's nowhere for them to get into a building, they'll search until they find a place to roost."

Hurley says that one of her greatest problems has been public relations: bats are a federally endangered and state protected species, but to school personnel, they are a health risk. Many of her challenges involve teaching school IPM coordinators how to remove the bats humanely so they can be tested for rabies by the state health department.

Someday, she hopes that some of the Master Naturalists will begin tracking bat species

Janet Hurley and Bats (continued from previous page)

in Texas. Because bats typically eat agricultural pests, they are plentiful among the vast numbers of farms in Texas. Of the 47 bat species recorded in the country, 31 of them live in Texas.

“It was actually scary when I realized I could recognize each bat species without looking it up,” Hurley says.

But that’s why she’s Texas’s Bat Lady.

Bat Control in Schools is available in English and Spanish at the Texas AgriLife bookstore, <https://agrilifebookstore.org>. For more information, visit <http://agrilife.org/batsinschools/>.

IPM At Work: Okanola Project Saves Wheat Growers Money

When extension specialists at Oklahoma State University first recommended crop rotation to combat weeds in wheat, growers were skeptical. Wheat had dominated Oklahoma cropping systems and culture for decades, and the arid conditions in several parts of the state made growing another crop a formidable prospect. As weeds increased and yields did not, many growers began taking the specialists’ advice. Seven years later, about 100,000 of Oklahoma’s wheat growers are reducing their weed problems and increasing their wheat yield, all by rotating their wheat with canola.



According to OSU weed scientist Thomas Peeper, wheat growers have faced weed management issues since 1976. Weeds and diseases are two of the biggest problems in a monocrop system, so specialists usually

recommend rotating the crop with a different crop species to clean the soil.

But despite flatlined yields and weeds that consistently infiltrated the harvest, growers were concerned about growing another crop. Most of them had grown wheat for years, often handed down from several generations. Learning to grow another crop was intimidating.

“The farmers were locked into wheat,” he says. “The University supported wheat. Nobody had even heard about crop rotation.”

After a concerted search, Peeper and fellow extension specialist Mark Boyles found an alternative crop that they felt would be easy for wheat growers to grow—canola. Growers could use the same equipment. Demand for canola oil was increasing, so growers would probably see a higher return on yields. And it was a broadleaved crop, so growers could use herbicides on the grassy weeds that had plagued the wheat.

“A grower can grow canola at the same time he’d plant the wheat and clean up his field, reduce his dockage, and bring better quality wheat to the elevator,” says Boyles.

Continued on next page

Okanola Project (continued)

To pilot the new crop, Boyles and Peeper picked ten farmers to plant ten acres of canola. Because canola grows in conditions similar to those for wheat, farmers did not need retraining. For most growers, the crop grew beautifully—until farmers brought their cows to the nearby wheat fields to graze on the dead wheat.

“As canola develops, its sugars concentrate, and when the cows were done with the wheat, they began grazing on the canola and grazed it right to the ground,” Peeper says.

Several growers, however, grew the crop successfully and discovered that they had fewer weeds in the wheat the following year. Peeper and Boyles decided to increase the acreage the next year and add several more farmers to a second pilot project. When the specialists continued to encounter resistance, they knew the time had come to change the farming culture—farmers, specialists, agents, consultants, marketers, manufacturers and buyers. They began a new statewide project called the “Okanola Project.”

Funded by several sources, including the state IPM program, canola growers associations, USDA Risk Management Agency and several private companies, the Okanola Project has continued to increase

the support for growing canola in Oklahoma. A plant that crushed cottonseed retrofitted its equipment to crush canola seed for oil. Growers discovered that they can sell canola for twice of the price of wheat. And the wheat that is grown in the fields following canola reaps a higher price because it is free of grassy weeds.

“The growers are very satisfied,” says Boyles. “There are some growers that tried it the first year and didn’t do well, but they’re coming back and they see the benefit. We’ve had some farmers that have had ryegrass problems, and then they’ll put canola in to clean up the field. Then they go back to growing wheat.”

Heath Sanders, another OSU extension specialist, works directly with growers on canola management. As the number of farmers growing canola continues to increase, IPM Coordinator Tom Royer is seeking to hire someone to cover the southwest part of the state.

Canola acreage has grown from those first 60 acres in 2002 to 100,000 this year. Peeper credits the success to the financial and staff support they have received from all of the individuals and groups that have helped to build the program.



Publications and Events

February 2-3: IPM Center Directors meeting, Savannah, GA

March 3, 2011: Proposals DUE for Pest Management Alternative Program (PMAP).

June 8, 2011: Proposals DUE for the Foundational Program of Agricultural Food and Research Initiative (AFRI)

Publications

Pest Identification Guide, Louisiana State University. Available for \$12 at <https://store.lsuagcenter.com/> or by phoning LSU AgCenter Communications at (225) 578-2263

Bat Control in Schools, Texas AgriLife Extension. Available for \$3 at <https://agrilifebookstore.org/> or contact Janet Hurley at ja-hurley@tamu.edu.

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