



## Director's Notes

I want to call your attention to two opportunities discussed in this issue.

The first is the Southern Regional IPM Grants Program, known as S-RIPM. USDA has funded this program since the 1980s, and the Southern region receives the largest amount for this program. This past year we funded eight projects (see p. 2). The RFA is online, but the deadline is only a little over 2 weeks away, on Monday, November 17.

The other opportunity is an award program that we began last year,

called the Friends of IPM Award. This award doesn't come with a huge sum of money, but it is designed to recognize the excellent work done by individuals or teams in various aspects of IPM. Our experience with award presentations last year was that they were a win-win situation for the Center and the winners. Winners receive the award in the presence of their peers, and we are able to introduce the Center to new audiences. More details about nominations are in the article below.

*-Jim VanKirk*

## Nominate Someone for a Friends of IPM Award

The 2009 Friends of IPM Award Call for Nominations is now online at [www.sripmc.org/friendaward2009/](http://www.sripmc.org/friendaward2009/).

**The deadline for nominations is Friday, November 21, at 5 PM Eastern Time.**

Winners receive \$2,000 in expenses and an award presentation at the meeting of the winners' choice.

There are six award categories:

- Bright Idea (for an innovative project, such as a research project, but could also be for an invention or Extension activity that is unique)

- IPM Implementer (for "on the ground" work in IPM, such as farming, crop consulting or any other kind of implementation)
- IPM Educator
- Pulling Together (for a group from varied backgrounds that has "pulled together" for a common cause)
- Future Leader (this award is ONLY for an individual)
- Lifetime Achievement (this award is ONLY for an individual)

You can nominate either individuals OR groups for the first 3 categories.

To nominate someone, you just need to write a 1-2 page explanation of why the person or group

(continued on the next page)

### In this issue:

1

Director's Notes

Friends of IPM Award Nominations

2

S-RIPM Grants Awarded

3

Friends of IPM Award: Glades Crop Care

5

Friends of IPM Award: Marvin Harris and Bill Ree

7

IPM PIPE Update

8

IPM At Work: No-Till Wheat in Kentucky

10

Upcoming Events

Publications

## Eight 2008 Southern Regional IPM Grants Awarded



This year Southern Regional IPM Grants funded 8 of 25 proposals for a total of \$796,355. Of the funded proposals, 4 were for research projects, 2 were for extension projects, and 2 were for combination research and extension projects.

Projects funded are:

- Enhancing Sustainable Use of Transgenic Bt-Corn Through Resistance Management for the Mid-Southern Region of the United States (Louisiana State University: Fangneng Huang, \$133,900)
- Novel Feeding Disruption Assay for Monitoring Insecticide Resistance in Adult Lepidoptera (North Carolina State University: Michael R. Roe, \$126,300)
- Expanding IPM Images to Meet the Needs of Southern IPM Extension Education and Plant Diagnostic Communities (University of Georgia: G. Keith Douce, \$33,454)
- Development of a Pocket Guide for the Identification and Control of Invasive Weeds in the Southern Region (University of Tennessee: Gregory R. Armel, \$36,546)
- Argentine Ant IPM in the Urban Landscape with Food Source Reductions and Baits (North Carolina State University: Jules Silverman, \$94,432)
- Integrated Weed Management Strategies to Increase Pasture Productivity (University of Kentucky: Jonathan D. Green, \$116,188)
- Implementation of a Regional Fungicide Resistance Monitoring and Brown Rot Disease Management Program to Sustain Peach Production in the South (Clemson University: Guido Schnabel (157,638)
- Push-Pull Fly Management for Deep Bedded Swine Barns (North Carolina State University: David Wes Watson, \$97,897)

The RFA for the 2009 grants was released September 24 and is available at [http://www.csrees.usda.gov/funding/rfas/ipm\\_southern.html](http://www.csrees.usda.gov/funding/rfas/ipm_southern.html).

### Friends of IPM Nominations (continued from previous page)

deserves the award. If you want to provide more support, you can include other short documents, photos or graphics, but they have to be attached to your nomination document. They do not have to be part of the 2-page limit.

You can find more information about the award at <http://www.sripmc.org/friendaward2009/>. Use the link to the Call for Nominations from that page, which will provide more detail about the categories.

This issue includes stories about Glades Crop Care and Marvin Harris and Bill Ree, who won 2008 Friends of IPM Awards. Jennifer Gillett, who won the Future Leader Award, said this:

“As the recipient of the Future Leader Award I feel that being recognized regionally for my work is very important. It also gave us an opportunity to showcase how our IPM program activities at the state level link to our regional center activities when you came down to deliver the award. I was amazed at the reaction of our Extension community to the award ceremony it was one of the best advertising opportunities we have had to showcase the validity of our IPM program and the quality of the content we deliver. “

Submit a nomination to Rosemary Hallberg at [rhallberg@sripmc.org](mailto:rhallberg@sripmc.org). If you have questions, please call at 919-513-8182.

## Glades Crop Care Receives Friends of IPM Implementation Award

The highest priority to Glades Crop Care owners Madeline and Charles Mellinger is helping Florida growers to succeed. That priority drives them to hire the best staff, learn the best information and find the best answers. So when Glades Crop Care was nominated for a new southern region Friends of IPM Implementation Award last year, the Southern Region IPM Center and its Advisory Council agreed that Glades had more than earned the Friends of IPM Award for Implementation.



Initiated last year by the Southern Region IPM Center in Raleigh, North Carolina, the Friends of IPM Award recognizes individuals and groups that have made outstanding contributions to integrated pest management, an effective and environmentally-sensitive approach to pest management that relies on a combination of practices. The award program includes six awards: innovation, implementation, teaching, teamwork, leadership, and achievement. The implementation award was designed for those who use IPM every day or work closely with those who do.

Working side by side with growers on a daily basis, Glades consultants, auditors and researchers understand first-hand the challenges of using integrated pest management in the field, along with the rewards of a suc-

cessful strategy. Their successes have helped them grow to be the largest crop consulting company in the southeast. Glades consultants work with over 45 fresh market vegetable crops and cover over 60,000 acres. And their growers rely on the consultants' advice and pay attention as they identify pests in each field and offer solutions to problems based on the pests' biology and ecology.

Biointensive pest management solutions are at the heart of Glades' beginnings. Glades president Madeline Mellinger started Glades in 1972 to provide growers with environmentally-friendly options to pest management. Specializing in biology and entomology, Madeline intended Glades to model the location of its headquarters close to the Everglades. In addition to inspiring the company name, the Everglades inspire Glades' mission to provide innovative solutions to pest and disease problems that are easy on the environment.

"It all fits," says Madeline. "It combines human safety and environmental safety. However, the key to a successful sustainable systems approach based on IPM is that growers need to be able to do it profitably."

Successful sustainable approaches hinge on correctly identifying a pest problem, a concept that Charles Mellinger knows all too well. With a doctorate in plant pathology, Charles joined Glades as technical director in 1980. Five years after he began his career at Glades, he encountered a problem that had stumped every plant specialist in the state—and one that even he couldn't solve. Small white dots with a dark center were appearing on tomatoes, making them unacceptable as fresh market fruit. But it didn't resemble any disease or insect damage symptoms that anyone had seen before. So Charles did what he has taught the rest of Glades' staff to do: he networked.

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## Friends of IPM Award: Glades Crop Care

(Continued from page 3)

At the American Phytopathology Society conference that year, he handed out photos of the spotted fruit while giving a speech on “the Pitfalls of Consulting.” He explained that as a result of the spotted fruit the photos, two growers had fired his company because they could not recommend a solution to the problem. To his delight, one scientist recognized the symptoms; the recent crop of Thompson grapes had exhibited similar spots. The scientist identified the cause as the egg-laying of the Western flower thrips.

The identification proved to be critical for Glades. No one in Florida at that time had the expertise to identify thrips. So Charles contacted an entomologist at the University of Georgia to learn to identify Western flower thrips and other thrips.

“After that contact, we have been able to monitor our damaging thrips species up through today,” Charles says.

In 1992, a Glades Crop Care entomologist, Galen Frantz, made an even more critical identification of *Thrips palmi*, an invasive pest that entered the US from the Caribbean. The identification earned Glades a Certificate of Appreciation from USDA—one of the many successes they’ve enjoyed through their collaboration with others.

Besides their extensive crop consulting services, Glades also offers research services including crop trials, pesticide efficacy tests and market research. Working with the crop consulting staff, Glades researchers discovered a biological control method for *Thrips palmi* and western flower thrips—planting sunflowers, a popular habitat for one of the thrips’ biggest predators.

Their most recent endeavor—food safety education and third party food safety audits for growers and packers of fresh produce—has allowed Glades staff to reinforce some of their advice to growers, as well as making the staff even more aware of the importance of discovering new ways to manage pests effectively. Glades Crop Care performs third party audits for the GAP’s, GMP’s and the GlobalGap program, an international food safety program that sets “best practice” standards on chemical inputs to ensure worker health and safety and consumer health. The food safety standards have helped the Glades staff emphasize the vital linkage of integrated pest management and a high quality food safety program.

Although the expertise of their staff members is key to their ability to assist growers, the Mellingers agree that Glades Crop Care’s success relies on their staff members’ communication with each other and with experts from other states.

“This is a learning organization,” Madeline says. “Whenever someone learns something, they ask themselves who else needs to know. No one on the staff feels that they can get a leg up by keeping a secret. That has served us and our clients really well.”

Southern Region IPM Center director Jim VanKirk says that Glades has been a true Friend of IPM to the region and was proud to be able to offer the award.

“Glades has been a national leader from the private sector and an asset to the region,” says VanKirk. “I am very pleased that we could publicly recognize them with this award.”

## Texas Pecan IPM Program Specialists Receive Friends of IPM Teacher Award

Texas AgriLife Research entomologist Marvin Harris spends his days studying ways to help pecan growers protect their crop from insects. Extension specialist Bill Ree shows growers how to use the tools provided by Harris' research. Together they make the perfect team.



From L to R: SRIPMC Associate Director Steve Toth, Bill Ree, and Marvin Harris

Harris's constant pursuit of new information and Ree's ability to excite growers to use that information earned the pair a 2008 Friends of Southern IPM Teacher Award.

"These scientists have epitomized the way that the Land Grant System was designed to operate to facilitate the development and delivery of information to stakeholders to benefit agriculture and society," said Texas IPM Coordinator Tom Fuchs in his nomination letter. "Their work has provided widespread impacts throughout the Southern Region including new sampling plans, action thresholds, prediction models, identification of low impact pesticides and electronic delivery of educational information."

The Southern Region IPM Center awarded Harris and Ree the Friends of IPM Teacher Award for proliferating pecan IPM in Texas through their education and training efforts. Associate Director Steve Toth presented the winners with the award at the annual Texas Pecan Growers Association meeting at the Woodlands July 13-16.

Harris and Ree came to Texas A&M from different parts of the country. Ree was an Extension specialist for row crops in Louisiana, while Harris was an entomologist trained at Cornell in New York State. They both came to Texas because of an interest in pecans.

"For me it was a challenge and an opportunity to work with a really neat crop," Ree explains. "It has been an absolutely wonderful experience."

Harris began his career at Texas A&M in 1972 by studying the pecan weevil. As he studied other pecan pests, he discovered that the nut feeders were particularly destructive, especially the pecan nut case-bearer (PNC). Because the PNC was the pest that pecan growers dreaded most, Harris (with Louisiana State University extension entomologist Dennis Ring and others) developed an action threshold for treatment.

"We needed to develop a threshold so we could create prediction models to recommend treatment when needed but could also let growers know to avoid treatment when it wasn't needed," Harris says.

Much of their latest work has centered on the PNC, a pest of pecans that can quickly devastate an orchard and is very difficult to control. With the help of another Friends of IPM award winner, the late John Jackman, Harris and others in the Pecan IPM Team devel-

(Continued on page 6)

## Friends of IPM Teacher Award: Marvin Harris and Bill Ree

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oped an online prediction model to help growers calculate the timing of treatment based on pheromone trap captures. The system contains a map that indicates where and when PNC has been found. Ree reminds growers that the map designates where and when growers need to scout for eggs and larvae, and counsels spraying only if needed.

“Everyone wants to know when to spray for PNC,” Ree says.

But spraying repeatedly made the pest problem worse. Growers would often have to spray at least two different insecticides because the pyrethroids killed the natural enemies of aphids and mites.

“When you think you have the problem solved, you find the bottom line is human behavior,” Harris says. “Even though you have a sustainable program, you don’t have a program until you have producer adoption. If producers aren’t adopting, you need to see why.”

Because scouting was so crucial to the success of an IPM program, Ree began a volunteer scouting network in 2002. He recruited growers, Extension agents and graduate students to comb through pecan orchards looking for PNC eggs. Some growers who had previously been spraying for PNC learned that they could be more conservative with their insecticide supply.

Ree remembered one grower who sprayed annually for PNC. When Ree scouted his orchard for PNC before the next scheduled treatment, he didn’t find any. The grower significantly reduced the number of spray treatments because he didn’t need to spray for PNC.

“He went from 8 to 10 insecticide sprays per year to 2 or 3,” Ree says. “He didn’t spray for PNC because he didn’t have any.”



Bill Ree (with microphone, R) leads a workshop for pecan growers.

As growers told their neighbors that the scouting was helping them save money on treatments without PNC infestations, word spread to counties not involved in the program. Before long, the network expanded to the entire state with help from EPA Region 6. This year, with new grants from USDA PIPE and the Southern Region IPM grant program, the network and pecankernel website will become belt-wide formats that involve and serve the industry over the entire country.

“The area-wide project through ipmPIPE is one where we can consolidate and coordinate information,” Harris says. “Down the road it will better serve producers.” This work will also involve S-1017 scientists in the Southern Region Pecan Insect group who share a long history of work in Pecan IPM at their respective CSREES institutions and producer organizations like Northern Nut Growers Association, Western Pecan Growers Association, Southeast Pecan Growers Association, Georgia Pecan Growers Association, Oklahoma Pecan Growers Association, Texas Pecan Growers Association and others across the pecan belt.

(Continued on page 7)

## ipmPIPE Update

For the past year SRIPMC has continued to contribute to the national ipmPIPE program by providing leadership in the budgeting and accounting. Jim VanKirk is Project Director for the grant resulting from the tri-partite agreement among USDA RMA, USDA CSREES and North Carolina State University.

PIPE 1, the original contract which used FY 2005 funds, terminated in March, 2008.

PIPE 2 was initiated in September 2006, with most subcontracts to states and PDNs terminating on Sept. 13, 2008. SRIPMC is currently in the process of closing out most of those subcontracts.

PIPE 3, initiated in September 2007, covers 33 subcontracts. Soybean rust and soybean aphid components are funded with 29 subcontracts directly from NCSU to host institutions. The legume PIPE component is funded with a single subcontract to the Western IPM Center, which in turn manages approximately 24 subcontracts. The new component, Pecan PIPE, is managed through the Penn State subcontract and, in turn, a subcontract to Texas A&M. Another new component, the Cucurbit Downy Mildew (CDM) PIPE, is hosted at North Carolina State University and budgeted directly from

the primary contract.  
Diagnostic

So far there is no PIPE 4 even though the need for and benefits from using the program are clear. The Risk Management Agency is unable to continue funding the project, and we have yet to establish another source of funds. Congress has not committed to funding ipmPIPE at this time. The entire ipmPIPE team is working together to develop mechanisms to maintain ipmPIPE for the 2009 season. Presently our plans include attempting a "life support," bare-bones program funded through:

- Cutting program and resulting costs as much as possible while retaining a viable and useful program
- Scraping together savings from the previous contracts and redirecting resulting funds
- Requesting funds from the Soybean Check-off and North Central Soybean Research Program for sentinel plots and other monitoring
- Continuing to request support from USDA-CSREES, exact source and amount as yet unidentified.



### Marvin Harris and Bill Ree (continued from previous page)

The combination of the online system and the volunteer network has saved growers thousands of dollars that would have been used for multiple sprays.

"Growers listen to us. We've shown that we've reduced pesticide use significantly," Ree says. "We're excited with the tool that we've got. We think we have an excellent program."

Harris and Ree also note that getting to the present state has required the support, cooperation and input from scientists, producers and other pecan industry stakeholders belt-wide, and that future progress will depend even more on their leadership, expertise and support to be successful.

## IPM At Work: No-Till Wheat in Kentucky

Kentucky wheat producer Wayne McAtee says his yields have nearly doubled since he started practicing no-till farming. For the past ten years, McAtee has grown no-till wheat rotated with corn and a double crop of soybeans.

“No-till works,” he says. “Since I learned how to grow no-till wheat, it’s been great.”

Kentucky leads the nation in growing no-till wheat successfully. Because no-till wheat can be more affected by competition from weeds, has slightly greater nitrogen requirements and additional challenges during stand establishment, growing wheat in untilled soil requires a specific regimen of herbicide applications, nutrients and seeding rates. Almost half of Kentucky’s wheat producers have learned to grow no-till wheat successfully.

Their success is due in a large part to the research of the University of Kentucky Wheat Science Group. A team of entomologists, plant pathologists, soil scientists, plant breeders, weed scientists and other agricultural specialists, the Wheat Science Group has one main priority: to make wheat production in Kentucky profitable and sustainable. After years of research and field trials, the Wheat Science Group has established a successful system of practices for growing no-till wheat: applications of pre-planting and follow-up herbicide, more nitrogen (about 15 to 20 pounds more), higher seeding rate and a strong plant variety.

Although Kentucky will celebrate its 50<sup>th</sup> anniversary of no-till farming in a couple of years, no-till wheat in Kentucky began in the Purchase area in 1980. As several wheat growers wanted to try growing no-till wheat, and the Kentucky Small Grains Association pushed for more no-till wheat, Extension

specialists at the University of Kentucky began exploring the science behind no-till wheat farming. Many wheat producers already planted no-till soybeans and corn, so adding wheat to the mix seemed an easy choice. No-till was attractive because less



equipment was required, saving on fuel and labor costs. No-till seemed more environmentally-friendly as well because it didn’t cause the erosion problems of conventional tillage practices. However, as many of the early adopters discovered, changing wheat farming to no-till wasn’t that simple.

Yields dropped, and falling along with them was grower enthusiasm to continue no-till wheat. But agronomists Lloyd Murdock and Jim Herbek of the Kentucky Wheat Science Group refused to believe that no-till would not work with wheat. Joined by entomologist Doug Johnson, plant pathologist Don Hershman, plant breeder Dave Van Sanford, weed scientist Jim Martin and the rest of the Wheat Science Group, Murdock and Herbek ran field trial after field trial to come up with a set of recommendations that would not only make no-till wheat successful, but make it more profitable than wheat grown with conventional tillage.

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## No-Till in Kentucky

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It worked.

“We showed it could be done,” says Herbek. “In a long-term research study, the first 8 years we had about 4 bushels per acre less yield, but over the last 10 years, the no-till yield has been equal to or higher than the tilled yield.”

To attain a profitable yield, growers had to follow the Wheat Science Group’s recommendations exactly. Growers used better designed machines as recommended by agricultural engineer Sam McNeill to penetrate the soil and residue to speed up planting time. A pre-planting herbicide needed to be applied, followed later by another application, and the wheat needed at least 15 pounds more nitrogen.

The variety of wheat also played a large part in the success of no-till farming. Concern about no-till centered around susceptibility to disease; however, resistant varieties tended not to produce as much grain. According to Van Sanford, semi-dwarf wheat varieties that stand erect are optimal for no-till. After making a cross between two wheat varieties, about 12 years of selection and testing are required to develop a new productive variety with high yield potential and disease-resistance. Van Sanford produced some of the wheat varieties that are profitable when produced under no-till in Kentucky.

“Plant breeding isn’t an exact science,” Van Sanford says. “It is a numbers game. Fortunately, we’re getting more and more technology that is helping with breeding.”

Fortunately, disease pressure was not as severe as growers had feared. Plant pathologist Don Hershman says that concerns about increases in the spread of head scab with no-till turned out to be unfounded. The crop rotation kept the disease from increasing on the no-till farms.

“That’s one thing that’s been a challenge,” Hershman says. “It’s confronting this conventional wisdom that is no wisdom. We’ve increased the amount of no-till, and the amount of scab hasn’t increased.”

No-till wheat has been so successful in Kentucky that growers in Illinois, Missouri and other states have adopted it into their wheat-soybean-corn rotation.

“We’ve had so many farmers ask if they can no-till wheat behind corn,” says Tim Sickman, crop consultant for Opti-Crop in Kentucky. “In Illinois, it has been planted behind soybeans. Farmers are concerned about fuel costs and labor. They’re looking at planting with less expenditure. When something works, the benefits don’t just stop at the state lines.”

The Kentucky Wheat Science Group received a Friends of IPM Pulling Together Award this past May for their achievements, including the extraordinary success of no-till wheat. Following the award presentation, many growers credited the success of no-till with the group’s open and constant communication, educational materials and ready availability to any grower in need.

“They’re so good about staying on top of the communication,” says McAtee. “They make themselves available to anyone who needs them.”

With continuing research, the Wheat Science Group is still refining no-till technology. In addition to wheat, they are looking at ways to improve no-till corn and canola.

“We tend to look for ways that we can make a difference,” says Lloyd Murdock. “You have to see around the corner just a little bit. Not many can see around that corner, so we have an obligation to look and see if it’s going to make a difference.”



## Upcoming Events

SRIPMC State Contacts Meeting  
November 18-19, 2008  
Mills River, NC

2008 Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions  
November 11-14, 2008  
Orlando, FL

SVPHS Section Symposium: School Integrated Pest Management  
November 19, 2008, 1-5 PM  
Reno, NV

2008 National Schools Working Group Meeting  
November 20, 2008  
Reno, NV

**SRIPMC Advisory Council and Steering Committee Meetings  
December 2-3, 2008  
Raleigh, NC**

North Carolina Regional IPM Centers Directors Meeting  
February 3-4, 2009  
New Orleans, LA

## Publications

### Recent Crop Profiles Completed:

- Florida Avocados (revised)
- Florida Lychee and Longan (revised)
- Florida Mango (revised)
- Florida Papaya (revised)
- North Carolina Christmas Trees (Mountains) (revised)
- Tennessee Leafy Greens (new)
- Texas Sorghum (new)
- Virginia Swine (new)

### Recent Pest Management Strategic Plan Completed:

- Honey Bees in Mid-Atlantic States (DE, MD, NC, NJ, PA, SC, VA and WV)

Crop profiles and pest management strategic plans are available at [http://www.sripmc.org/rese\\_profiles.cfm](http://www.sripmc.org/rese_profiles.cfm).

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