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## Six Winners Celebrate with Friends of IPM Awards This Year

Two teams and three individuals will be recognized this year with the Southern Region IPM Center's Friends of IPM Award. Winners were chosen by their peers in the region.



Dr. Keith Douce, co-founder of Bugwood Network

The Center for Invasive Species and Ecosystem Health, known to many in the region as the **Bugwood Network**, wins this year's Bright Idea award. Bugwood began in 1994 as a collection of a few hundred pictures of forest pests placed on the

Internet to help county extension agents identify insects. As extension specialists and other university experts continued sending photos, Bugwood creators Drs. Keith Douce and David Morehead realized they had to make the database searchable.

Now, over 15 years later, Bugwood contains well over 100,000 indexed photos, a diagnostician's cookbook, a Wikipedia, maps and hundreds of printable text resources. Their images are an invaluable resource to Extension personnel, faculty, public school teachers and trainers. To many people throughout the country, Bugwood was a "Bright Idea" that is now almost a necessity.

The IPM Implementer award goes to **Dr. Blaine Viator**, a certified independent crop consultant in Louisiana. Dr. Viator is the current chair of the ipmPIPE steering committee and president-elect of the

National Alliance of Independent Crop Consultants. In both roles, he has helped field crop growers both in Louisiana and nationally to understand and implement IPM.

Not only does Dr. Viator advocate for effective and progressive IPM, but he also practices it himself. As a consultant, he monitors for pests, takes soil samples, works with researchers on new pest management technologies, and

works with precision ag technology to give growers the most accurate and efficient pesticide recommendations to manage their pest problems at a minimal cost to the environment. Since 2005, he provided monitoring data of soybean rust on kudzu and informed scientists about SBR activity in soybean. The SBR monitoring network has helped soybean pathologists to formulate appropriate SBR fungicide recommendations and has been instrumental to saving farmers money that might have been wasted on needless fungicide sprays.

IPM professionals in Tennessee know **Scott Stewart** as the state IPM Coordinator, but this year he is also winner of the IPM Educator award. According to nominator Owen Gwathmey, Dr. Stewart has led insect



Blaine Viator (L), who received his award during the NAICC annual meeting on January 20 in Reno, NV.



Scott Stewart, scouting a field

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

pest management programs for cotton, corn, soybean, sorghum, wheat and pasture since 2002. He regularly trains farmers and Extension agents in scouting schools, conducts pesticide and GM crop trials, evaluates sampling procedures and thresholds and communicates with farmers and Extension agents through a variety of methods. One Tennessee grower said, "Scott has a special talent for conveying subject matter that may be arcane to the lay farmer in a manner that is easily understood."

Dr. Stewart was part of the Mid-South Entomologists team that won the Pulling Together award last year. From the thresholds the team developed for the tarnished plant bug, Dr. Stewart developed an IPM program for the region's cotton farmers that minimized the amount of foliar insecticide applications needed to control the pest. "Through this IPM program, Dr. Stewart will most likely save growers millions of dollars in unneeded insecticide costs," says Jeffrey Gore, an assistant professor with Mississippi State University's Delta Research and Extension Center.



Ayanava Majumdar

Future Leader award winner **Ayanava Majumdar** has already proven himself a current leader in IPM extension and impact evaluation. An Extension Entomologist with the Alabama Cooperative Extension System, Dr. Majumdar has successfully trained farmers in IPM, with IPM adoption rates of 53%

and an increase in understanding of up to 62%. He has developed communication tools to raise awareness of several invasive pests, including the Asian Citrus Psyllid, the vector of huanglongbing (citrus greening). Dr. Majumdar utilizes several forms of communication to relay information, including printed newsletters, blogs, webinars and site-specific workshops.

Dr. Majumdar is also one of the region's few IPM impact evaluation specialists. Last September,

he led an evaluation workshop for the state IPM coordinators. He has also designed a logic model for IPM program evaluations in the southern region that researchers at Auburn are using to develop grant proposals.

The Pulling Together award goes to a group of Extension specialists in Mississippi who organized the **Mississippi Crop Situation Blog**. Created in early 2011, the blog team involves experts from Mississippi State University Extension Service and AgFax Media who are experts in crops, weeds, insects and soil. The blog provides information about crop and soil issues. Dr. K. Raja Reddy, who nominated the blog team, estimates that the blog saved Mississippi growers between 35 and 70 million dollars last year.

Located at <http://www.mississippi-crops.com/>, the blog began as a weekly newsletter, delivered by MSU Extension Service to agricultural specialists throughout the university. As the newsletter began to incorporate more stories and alerts—and grow considerably longer as a result—mailing it to its 2500 subscribers became more and more impractical. In February 2011, with the help of Owen Taylor from AgFax Media, the MSU Extension Service launched the Mississippi Crop Situation Blog. The blog is updated regularly by a team of nine people, with at least six other contributors.



Virginia IPM Coordinator **Ames Herbert** will receive this year's Lifetime Achievement award. Dr. Herbert has been an Extension Specialist with the Tidewater Area Research and Extension Center for 24 years and IPM Coordinator for 15 years. In both positions, he conducts research and extension activities on peanuts, cotton, soy-



Ames Herbert

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

beans and small grain and is the only entomologist with responsibilities in those fields. Dr. Herbert's day can involve anything from field or lab work to driving out to a grower's field to help with a pest problem.

Dr. Herbert has been principal investigator on several southern region projects, including two pocket guides (one on corn, soybean and wheat and the

other on stink bugs), stink bug research and extension tools, a slug workshop and more. Almost all of his projects have involved several states, from the southern region and from the North Central and the northeastern regions. Four years ago, Dr. Herbert received an award from Virginia Tech for his service to the Tidewater AREC and the state IPM program.

## Extension Evaluation for Agriculture Professionals

by Ayanava Majumdar, Extension Entomologist & IPM Program Evaluator, Agronomic Crops and Commercial Horticulture, Auburn University



This article is the first of a series about Extension evaluation, contributed by Ayanava Majumdar, Extension Entomologist with Auburn University and this year's Friends of IPM Future Leader (see article on previous page).

Extension evaluation is a fundamental activity for measuring program success. In 1959, Donald Kirkpatrick published the description of a Four Level Evaluation Model (Four Levels, in short) in series of papers published in the Journal of the ASTD. ACES agricultural outreach teams can use LEM with rigorous documentation of outcomes and impacts.

### Kirkpatrick's Four Levels:

Level 1: REACTION

Level 2: LEARNING

Level 3: BEHAVIOR

Level 4: RESULTS

### Application of Kirkpatrick's Four Levels:

#### 1. Reaction (Client Satisfaction)

This is the most basic form of evaluation that should be conducted at every Extension event

because it seeks audience's satisfaction level immediately after an educational event.

- These surveys are inexpensive to develop and less time consuming during execution (immediate feedback instruments).
- Survey instruments for documenting reactions are simple and short, unless they are combined with one or more of the higher assessment levels. Typically, reactions are gathered via rapid surveys with multiple choice questions instead of long probing questionnaires.
- Survey instruments for group assessments can be paper-based or electronic.
- The survey instrument itself can be used to report the data after a simple analysis and be shared with team members.

#### 2. Learning (Knowledge Change)

Evaluations at this level assess the simple changes in audience attitude, knowledge and skills that are elements of learning. Surveys of learning are a critical component of the overall impact assessment for a focused Extension program because they indicate the audience's desire to change and their need to adopt new technologies.

## Extension Evaluation (continued from previous page)

- In the simplest form, pre- and post-test surveys can be conducted at Extension events to assess the audience's gain in knowledge. Most Extension personnel use self-evaluative instruments but individual presenters at an Extension event could develop their own training-specific instrument (see below). A combination of open-ended and multiple choice questions can be used in the survey instrument. Interviews can also be conducted to assess learning.
- The survey instrument can be a combination of paper-based (open-ended) and electronic techniques (multiple choice questions).
- To document change in abilities, skills, and confidence levels, presenters can use training-specific pre- and post-tests.

### 3. Behavior (Technology Adoption)

This is a high level of evaluation that is more rigorous and time consuming to conduct compared to reaction and learning assessments.

- Focus is on the implementation of improved practices as an indicator of learning (outcome). The survey instrument may be used for multiple years to measure change in behavior over a period of time or project timeline.
- Behavioral surveys may need assistance and cooperation from other colleagues. Allow ample time for the audience to respond by including evaluations in the program agenda.
- Techniques may include observations, testimonials, off-site interviews, problem analysis, and on-farm surveys.

### 4. Results (Impact Assessment)

Result or impact assessment is a critical component for documenting overall success of an educational program.

There are two general ways results or impact evaluations can be conducted:

- **Process A.** Impact statements can be compiled loosely from previous surveys of reaction, learning, and technology transfer (adoption). This process may be necessary for projects that did not have an evaluation component when they were initiated.
- **Process B.** Impact statements can be compiled from direct observation or assessment of clientele via various specific instruments. Extension impact survey instruments typically focus on collecting **economic and environmental benefits** of a transformational educational program.
- Impact assessments may be conducted via interviews, direct farm visits, observations on technology adoption, comparison of technology adopters versus technology nonadopters (or early versus late adopters), study of farm logs and journals, photographs, etc. Remember, impact assessment may require additional funds in designing and implementing the evaluations.

For more information on evaluation in the Southern region, contact the evaluation specialist at your university or Jim VanKirk at SRIPMC.

**Reminder:** the IPM Symposium is open for registration. Register at <http://www.ipmcenters.org/ipmsymposium12/>

## Doris Sande Joins SRIPMC Staff as Evaluation Specialist

Agricultural economist Dr. Doris Sande recently joined the Southern Region IPM Center staff as the new Evaluation Specialist. Originally from Kenya, Dr. Sande moved to the U.S. in 2001. Her masters and PhD, received from the University of Georgia, are both in Agricultural Economics. She moved to North Carolina in August 2010. She is married to Dr Peter Sande Ojiambo, plant pathologist at NC State University, who is also the lead researcher on the Cucurbit ipmPIPE. They have two children, Alice and William.

Dr. Sande's Ph.D. research focused on the evaluation of environmental and health impacts from the methyl bromide alternatives proposed for the tomato sector. Methyl bromide is a broad spectrum insecticide historically used extensively in soil fumigation. Due to its high ozone depletion potential, methyl bromide is currently being phased out in the U.S.

As Evaluation Specialist, Dr. Sande will update crop surveys for leafy greens, Christmas trees, peanuts, sweet potatoes and other potatoes; document economic, environmental and human health impacts from IPM in the region and assist with success stories; conduct regional training sessions on impact evaluation; and update the CRIS database with new project reports.



## Incoming NAICC President Blaine Viator Receives Friends of IPM Award



Just minutes after Dr. Blaine Viator assumed leadership of the National Alliance of Independent Crop Consultants as president, he celebrated another vic-

tory as winner of a Friends of Southern Integrated Pest Management award.

Viator won the 2012 IPM Implementer Award, one of six Friends of Southern IPM awards this year.

The implementer award goes to an IPM professional who performs "on the ground" integrated pest management.

Viator is an independent crop consultant with Calvin Viator, Ph.D., and Associates, LLC, in Labadieville, Louisiana, a company his father, Calvin Viator, started in 1959. He has a B.S. in microbiology and a doctorate in plant health, with a minor in entomology from Louisiana State University.

As a consultant for sugarcane, soybean, and wheat farmers, Viator monitors crop development and provides IPM recommendations for his customers. According to the nomination sent by Dr. Donald Hershman, professor and extension plant pathologist with the University of Kentucky, "The growers

## Blaine Viator Wins Award (continued from previous page)

he has worked with over the years have most certainly benefitted, financially and logistically, from Dr. Viator's unwavering IPM approach."

After spending the winter taking soil samples from sugarcane fields for fertilizer recommendations, Viator and his associates will begin scouting for sugarcane borer in May. His company scouts from May until June and uses economic and action thresholds to recommend timing for insecticide applications when the borer's natural predators and resistant crop varieties fail to keep up with escalating pest populations. In areas that may be too sensitive for pesticides, he recommends some of the sugarcane varieties that are resistant to sugarcane borer.

"Before my father started the business 53 years ago, many farmers in our area used blanket treatments of insecticides," Viator says. "The sugarcane borer became resistant to what they were using, and the chemicals also were hard on the beneficial insects. So my father started scouting for pests to discourage resistance."

To further implement IPM, Viator recommends cultural practices such as mowing and destruction of dead top growth on winter-killed cane, destruction of post harvest crop residue, promoting the preservation of natural predators and alternating pesticide chemistries.

Viator joined the NAICC in 1991 and became a board member 4 years ago. As an NAICC member, he was actively involved in several committees and chaired the Consultants Education Committee, Newsletter Committee, and the Annual Meeting Coordination Committee. He is also a member and past president of the Louisiana Agricultural Consultants Association. He assumed his new role as president of the NAICC last week at the Annual Meeting in Reno, NV.

In 2005, Viator began providing data to a new national online monitoring system for soybean rust,



Blaine Viator (L) with his parents, Calvin and Barbara

a devastating disease that entered the U.S. in 2004. The system, the soybean rust ipmPIPE, (<http://sbr.ipmpipe.org/>), tracks locations of soybean rust sightings on soybeans and kudzu, forecasts the probable path of the disease based on weather predictions, and provides recommendations to farmers whose crops may be at risk of the disease. Monitoring efforts have likely saved soybean farmers nationally at least \$11 million every year since 2005.

Viator joined the national ipmPIPE Steering Committee in 2009, and now chairs the committee. The Steering Committee provides coordination and facilitation of several component "PIPEs" as well as planning for sustainable support for the system.

"If you get to know Blaine for any length of time, you'll find out that you can count on him to say 'yes' to a call for help," said Jim VanKirk, director of the Southern Region IPM Center in presenting the award. "Anything that I've asked him to do, he's always come through. He's a guy you can always count on."

One of those requests, VanKirk explained, was to join the IPM Voice, a new national advocacy group for IPM.

## Blaine Viator Wins Award (continued from previous page)

In addition to the influence of his father, Viator learned the value of IPM at Louisiana State University from the teachings of entomologists mentored and influenced by Dr. Dale Newsome, one of the early pioneers and champions of IPM.

“Many of the entomology, plant pathology and weed science faculty at LSU were trained by Newsome, so they also framed my understanding of the value of IPM,” Viator says.

After working as a consultant for 24 years, Viator says that he believes in IPM because it works.

“We have areas of the industry where most of the cultivated acres are being scouted by growers or

consultants, and other areas where growers won’t scout or pay to have someone scout,” Viator says. “In the areas where all of the neighboring growers are scouting and practicing IPM, there is lower pest pressure, and growers have lower input costs. In the other areas where growers aren’t scouting, the moth population is higher, and growers are having to spray more or are experiencing much more yield and economic losses from pests. The overall impact of area-wide IPM implementation is an amazing success story to IPM, one that requires working with growers in many areas of Louisiana sugarcane areas to truly witness its benefits.”

## IPM At Work: Pocket guide helps put the brakes on invasive weeds

Benghal dayflower is not yet in Pennsylvania, but if it ever shows up, weed expert Melissa Bravo has a handy pocket guide to help her recognize it.

Published in 2009, *Invasive Weeds of the Appalachian Region* pioneered a new type of weed scouting handbook—it fits into a pocket, making it more portable than the traditional weed ID guidebook.

“This is easier to carry out into the field than the larger books,” says Bravo, a weed scientist with the Pennsylvania Department of Agriculture. “It’s a nice size pocket guide.”

In 2006, University of Tennessee weed scientist Gregory Armel contacted NC State University colleague Robert Richardson about joining forces to put together a unique weed ID guide for the Appalachian region. Richardson had developed pocket guides for the North Central region while he worked at Michigan State University, so he and Armel collaborated on a new pocket-sized guide.

“In the field, land managers may be removed from their necessary tools,” Richardson says. “A pocket guide could improve their efficiency.”

Because the size of the booklet would restrict the number of pages, Armel and Richardson needed to include the most important weeds. A request for top priority weeds, sent to organizations in Tennessee, North Carolina and surrounding states (including Pennsylvania), generated a strong list of the East Coast’s worst invaders.

The booklet is divided into weed categories—grasses, broadleaves, vines, shrubs and trees, and parasitic plant. Each page—sometimes two—is dedicated to a weed, boasting several photos of life stages, stems, leaves, flowers or seeds. Under the photographs is a description of the weed, followed by small icons indicating the control recommendations for that weed. At the bottom, a table allows the user to document where the weed was found, what size it was, what treatment was applied and the date of application. Extension Assistant Rebecca Koepke-Hill painstakingly assembled every photo,

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## Weed Pocket Guide (continued from previous page)

description and credit in the booklet and designed the layout and cover.

Many newsworthy weeds appear in the booklet. Bamboo is on page 15. Kudzu is on page 44. Cogongrass is on page 9. And for whenever Bravo needs it, Benghal dayflower is on page 21.

Bravo is not alone in her appreciation for the booklet's usefulness. Armel says that staff in several Tennessee county offices have distributed the booklets to land use managers in their region and that he and Richardson have also distributed copies to their state's Departments of Transportation for use by their road maintenance crews. The key is distributing the guide to land use managers so they are able to identify and control these species before they become a larger issue.

"We have given some presentations for maintenance crews who do the applications for roadside weeds and helped them ID some species," Armel says. "That led to some discussions about having the University of Tennessee do a roadside survey to map invasive species."

The booklet has already helped several professionals battle invasive weeds. Developers of a new arboretum in Tennessee used the guide to identify invasive species and remove them. In another Tennessee county, an Extension agent used the booklet to guide a homeowner in the steps required to kill a mimosa tree. These are just some of the many examples regarding how these types of educational materials can



Cogongrass. Credit: John D. Byrd, Mississippi State University, Bugwood.org

help people find the answers they need in controlling invasive species in an accurate and timely fashion.

The best feedback of all, according to Armel, came from the University of Tennessee with the Cavender Outstanding Award for Best Extension Publication. Established by a former communications director, the Cavender Award recognizes excellence in the development of published material produced in the Institute of Agriculture. Armel, fellow professor G. Neil Rhodes, Jr., and Koepke-Hill were all recognized for their contribution to the booklet.

Armel says the next step is to keep track of invasive control—where and how it's being done and who is doing it.

"How do we get practitioners to tell us how they're trying to control invasives?" Armel says. "Practitioners come up with ideas that are beneficial, and if we can capture those ideas, we may get more invasives cleaned up in a more timely fashion. Joint discussions between practitioners and scientists are critical in the eradication of invasive species."

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