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Lois Rossi to Receive the International Award for Advances in Crop Protection

Chemistry

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The IUPAC Division of Chemistry and the Environment (DCE) administers the IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry, which recognizes individuals in government, intergovernmental organizations, industry, and academia who have exercised personal leadership for outstanding contributions to international harmonization in the regulation of crop protection chemistry. Global crop protection chemistry is a 40 + billion dollar industry that provides critical pest management tools for protecting worldwide food and fiber production and promoting public health protection for disease vectors. It is also one of the most highly regulated areas of applied chemistry, and a critical problem has been the lack of harmonized approaches between various national

regulatory authorities. This lack of harmonization may impede international trade for both chemical products and for harvested crops, which may bear trace residues of the chemicals. Although significant progress in regulatory harmonization has occurred on a regional and international basis during the past 15 or 20 years, the IUPAC award is designed to continue promoting actions promoting harmonization by recognizing those individuals who are making major contributions of global importance.

The award program was inaugurated during 2010, and the competition process is coordinated by the DCE's Subcommittee on Crop Protection Chemistry. Nominations for the award are solicited for receipt by December 1 of odd-numbered years, with the award to be made during even-numbered years in conjunction with an IUPACsponsored conference or special symposium. Corporate sponsorship for the award has been arranged with Dow AgroSciences of Indianapolis, continued on page 4





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KUDOS for ACAC

The IR-4 Field Research Team at Citra, FL —by Michelle Samuel-Foo, IR-4 Southern Region Field Coordinator

It's a hectic early summer day at the University of Florida's (UF) Plant Science Research and Education Center (PSREC), for David Studstill and his team, which includes Darrell Thomas and Michael Long. The crew begins work at 6:30 am as the goal today is to get in applications for 2 separate trials before the predicted downpour that Tropical storm Debby is expected to unleash on the north coast of Florida.

David has been the Field Research Director of the Citra, Florida center since 2007 and has weathered many of these storms making advanced plans for application timing. Darrell has been with the IR-4 program since 2005 and is no stranger to protocols, calibrations, Field Data Books (FDBs) and Good Laboratory Practices (GLPs). Michael is the most recent addition to the group, having joined the program in 2010.

This team, working under the faculty guidance of Dr. Peter Dittmar, a weed scientist in the Department of Horticultural Science at UF, can handle upwards of 30 IR-4 GLP residue trials annually at the field research center, although recently they have averaged closer to 20 trials per year. Dr. Dittmar explains his motivation for assuming the oversight of the center after Dr. William Stall retired in 2010: "Participating in IR-4 was one reason I applied for this faculty position. Florida's IR-4 program historically has been a vibrant program. This is due to the great relationship between IR-4 and Florida's strong specialty crops industry. I look forward to continuing these relationships and maintaining the excellence of IR-4 in North Central Florida."

To plan for a typical season, the Citra team receives their tentative schedule from the Regional Coordinator (Michelle Samuel-Foo) following IR-4's National Research Planning meeting. From there, they decide on land requests, and begin preparations for the upcoming year. Depending on the information that they have on hand, the team uses an expansive wall mounted dry erase board to manage their ongoing trials (master schedule). They use a system of colored lines, to indicate whether a trial is scheduled to be sprayed, or if a spray has been completed. As FDBs are finished, trial(s) are erased from the master calendar wall. "By planning out the entire year, we can try to keep from stacking too many sprays up on one day as we are able to see all of the trials in a single glance," writes David.

Organization and daily communication is key to havingir4.rutgers.edu successful trials, this group has discovered. It also helps that they have an expansive network of experts (over 140 researchers are affiliated with PSREC) to rely on for troubleshooting or advice. Nestled in the heart of North Central Florida, the PSREC in Citra, is the home to one of two **IR-4 Field Research Centers** (FRC) in Florida. Unlike the other IR-4 FRC FL location. which focuses specifically on Tropical fruit studies (Reed Olszack and Dr. Jonathan Crane), this location can handle a wide variety of vegetable row crop trials and some tree fruit studies. In 2010, the team delved into the Public Health Initiative of IR-4 when it served



Visual of the wall mounted master schedule employed by the UF Citra IR-4 team. Blue check marks are scheduled sprays that have been completed.

as one of two sites selected nationwide in the first mosquito adulticide study that IR-4 conducted (does anyone remember which was the second location for this trial?-ANSWER *continued on next page*

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2012 Food Use Workshop

The IR-4 FUW will be held Sept. 11-12, 2012, in St. Louis, Missouri at St. Louis Union Station Marriott. Reservations should be made directly with the Marriott by calling 800-410-9914. To secure the room rate of \$119 single/double, mention IR-4 Food Use Workshop. The cutoff date for reservations is Aug. 20.

The workshop registration fee is \$150 until Aug.20, 2012, and \$200 from Aug. 21 onward. Registration is available online at www.ir4.rutgers.edu. As we have done the past few years, we will focus discussions at the workshop only on projects that received at least one "A" nomination in Aug. A more detailed agenda is available on the IR-4 website.

can be found at the end of the article).

The PSREC presently consists of 1,068 acres of land. Within the total acreage, roughly 700 acres are cultivatable land. The IR-4 Citra team can conduct the majority of its assigned trials in house, although they have had to travel to satellite locations for strawberry (Balm, FL), citrus (Gainesville, FL) and potato (Hastings, FL) studies in the past. In the foreseeable future however, the PSREC should have the ability to accommodate all of the center's research needs. David has a long history of row crop agriculture experience, having spent most of his childhood on a family farm. In 1995, he earned a B.S. in Agronomy from the University of Key dates for the nomination process and deadline for receipt of new project requests are: **Aug. 15:** last day for new requests (PCRs) to be submitted to IR-4 HQ; **Aug. 17-30**:project lists (by discipline) available on the website for nomination; **Sept. 1:** project reports/spreadsheets posted on website.

This year we are trying a new project upgrade option for new PCRs received at HQ starting Aug. 16 through Oct. 3. These requests, may be submitted based on information gleaned from the St. Louis workshop or late season field data, and can be reviewed for inclusion as an "A" priority project for 2013 research. Such requests must be supported by well-documented Priority Upgrade Proposals (PUPs) and submitted no later than Oct. 3. These proposals will be evaluated with Regional Upgrades and PUPs by IR-4 HQ/Regional Field Coordinators in an Oct. 8 conference call, when additional 2013 projects will be selected for trial assignments at the Oct. 23-24 National Research Planning Meeting.

IR-4 will not be mailing out workshop reports/printouts. Instead, we request that workshop participants print materials from the IR-4 websites after Sept. 1. For more information contact Cheryl Ferrazoli at ferrazoli@aesop. rutgers.edu or Van Starner at starner@aesop.rutgers.edu or call 732.932.9575.



Florida and then he subsequently worked as a Biological Scientist in the Horticultural Department at UF in the area of irrigation and fertilization management. In 2007, David brought his expertise to the IR-4 project when he accepted the Field Researcher Director's position, following Barry Tanner's departure. In his spare time, he enjoys travelling, hunting and fishing.

Many are familiar with the saying: "If it seems too good to be true, then it usually is."

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The members of the IR-4 Field Research team at the University of Florida Plant Science Research and Education Center, in Citra FL: (L-R) Michael Long, Darrell Thomas, David Studstill and Dr. Peter Dittmar.

Luckily, this was not the case when David and his team were approached with the idea of hosting a joint IR-4 Southern Region/North Central Region Residue Training Workshop last spring at the PSREC. It was a challenge to get the tours and demonstrations for this event pulled together, but given that February is a slower month for this location, and with the assistance of other FRDs who pooled together to showcase their various expertise, the event turned out to be a huge success.

continued on page 4

Personalities in the News

Award *continued from page 1* U.S.. Awardees receive an

honorarium plus meeting registration, travel, and per diem reimbursement.

2012 Awardee

The 2012 IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry will be presented to Lois A. Rossi of the Office of Pesticide Programs at the U.S. Environmental Protection Agency (EPA).

Rossi joined EPA in 1978, and was active in leading pesticide reevaluation efforts during the 1990's, including implementation efforts for the Food Quality Protection Act of 1996. Since 2003, she has served as Director of the EPA Pesticide Registration Division, which evaluates and approves new pesticide active ingredients and new uses. Rossi has been involved for more than 20 years with international regulatory harmonization efforts. Through her activities with the NAFTA (North American Free Trade Agreement) Technical Working Group she was instrumental in development of harmonized approaches in the NAFTA region for pesticide evaluation, establishment of maximum residue limits (MRLs) for foods, and pesticide labeling.

Rossi's efforts related to global regulatory harmonization via the OECD (Organization for Economic Cooperation and Development) Working Group on Pesticides began in 1991 with a workshop held in Washington, DC, and included major contributions to the design and implementation OECD's 10-year vision for "A Global Approach to the Regulation of Agricultural Pesticides" launched in 2004. Rossi has also been active in promoting harmonization efforts involving minor and specialty crops through the OECD Expert Group on Minor Uses, and she served as a lead organizer for the inaugural "Global Minor Use Summit" held in Rome during 2007 with the support of FAO, the U.S. Department of Agriculture and representatives of some 60 countries. As head of the U.S. Delegation since 2004, Rossi has led efforts via the Codex Committee on Pesticide Residues for development of streamlined international evaluations and accelerated adoption of harmonized MRL standards applicable among the more than 165 Codex member countries.

Rossi has been a tireless advocate for adoption of joint regulatory evaluations of new pesticide active ingredients, whereby the efforts of regulatory authorities in multiple countries are pooled and coordinated for harmonized data reviews. These joint reviews, which began in the NAFTA region and later expanded to a global basis (involving EU member states, US, Canada, Mexico, Japan, China, Brazil, Australia and New Zealand), have resulted in a paradigm shift within both governments and the industry whereby such joint reviews are quickly becoming the norm. As part of her international

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regulatory harmonization efforts, Rossi has been involved in a number of bilateral initiatives aimed at joint advancement of international approaches, and particularly active cooperation has occurred with such countries as China, Brazil, Japan, Taiwan and South Korea. Rossi has also been a frequent lecturer at IUPAC-sponsored and other international scientific conferences, and has become one of the most influential and respected advocates for regulatory harmonization.

For further information on the award program, please contact John Unsworth, Chair of the IUPAC Subcommittee on Crop Protection Chemistry (UnsworJO @aol.com), or Kenneth Racke, Past-Chair of the Subcommittee (KRacke@dow.com).

Citra Team continued from page 3

The location was chosen not only due to its close proximity to the IR-4 Southern Region office, but also because of the high quality and broad scope of work that the center produces.

In spite of the difficulties and uncertainties that weather systems can bring, this team is experienced. Tropical storm Debby might have wreaked havoc on Florida's north coast, and despite the fact that much-needed rainfall was concentrated over a period of 3 days straight, the team did manage to reach its goal for the day. It pays to be an early riser after all. ANSWER: UC Davis-with FRD Don Stewart.

IR-4 Tour from a Newbies' Perspective

On June 20, 2012, IR-4 held its 12th IR-4/USDA/EPA agricultural tour. This year's tour was focused on Virginia (VA) vegetables and was titled, "From Farm to Store to Your Front Door". Since budgets are very tight and overnight travel dollars restricted, the day-long IR-4 tour was very attractive for those with limited budgets. This year, the tour was attended by 49 people from EPA, the highest attendance from EPA on any tour thus far. There were four scheduled tour stops that included Parker Farms, that

Rod Parker explains quick cooling at Parker Farms.



process, inspect and distribute locally grown produce to wholesalers throughout the East Coast; Rafe Parker's vegetable farm; Produce Source Partners, a distribution center supplying fresh produce, cheese and dairy products and other dry and refrigerated products to stores, such as 7-11®, throughout VA; and Robert and Jane Dodd's farm, growing Hanover tomatoes, squash, peppers, zucchini and other produce in Mechanicsville, VA.

Since I am the newest staff member at IR-4 HQ, this was my first time on such a tour. While my role is Unit Administrator in the Public Health Pesticides Program, this not only gave me a great opportunity to see how IR-4 supports growers and interacts with EPA in the IR-4

— by Leon Schermerhorn, Public Health Pesticides Assistant Research Scientist

> Food Program, but also how important food safety is to Public Health. My first impressions of the different tour stops were the focus on quality. At each stop, the speakers focused on one mission; providing high quality and nutritious products for local consumption. This resonated very deeply with me, since eating fresh, high quality food provides the necessary nutrients for someone to function at a higher level than would result from consuming processed food. Each stop drove this point home, from the packing plant, to the last stop at Dodd's farm, where tour participants enjoyed the proverbial fruits of the Dodd's labor during a home cooked meal that included produce recently harvested from their farm. continued on page 8

IR-4 Successes Apr. to Jun. 2012

The trade names listed below are provided as a means to identify the chemical for which a tolerance has been established. A trade name listed here may not be the name of the product on which the new food use(s) will be registered. Only labeled products may be used on a food crop. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical.

Federal Register: April 11, 2012 Acibenzolar-S-methyl Trade Name: Actigard Crops: Low growing berry crop subgroup 13-07G PR#: 07817

Federal Register: April 20, 2012 Quizalofop ethyl Trade Name: Assure Crops: Rapeseed subgroup 20A except flax, Sorghum PR#: 07340, 10092

Federal Register: May 2, 2012 Acequinocyl

Trade Name: Kanemite Crops: Succulent shelled bean, Edamame, Melon subgroup 9A, Cucumber, Caneberry subgroup 13-07A, Small vine climbing fruit except fuzzy kiwifruit subgroup 13-07F, Low growing berry subgroup 13-07G, Cherry PR#: 08674, 10769, 10768, 08607, 08606, 08859, 09273, 10585, 10586, 09629

Federal Register: June 27, 2012 **Propiconazole**

Trade Name: Tilt, Quilt, Inspire Crops: Snap bean, Succulent shelled bean, Bean (dried seed), Citrus fruit group 10-10, Stone fruit group 12 except plum, Plum, Tomato (post-harvest), Foliage of legume vegetable group 7 PR#: 06508, 09295, 09437, 02008, 09715, 09615, 09616, 09617, 09787, 09621, 09623 09622, 10182, 10493

Feature

Beyond DDT? IR-4 and the Pote

DDI is probably both the most famous and infamous pesticide of all time – an emblem for many of all that is good and bad about chemical control of insects – and the IR-4 Project is a partner in a major global effort to evaluate the phase out of its remaining uses.

The history of DDT to today can be written in five chapters that largely reflect changing public attitudes toward chemicals in general and synthetic pesticides in particular: early discovery and evaluation; a "silver bullet" to protect public health; wide expansion into pest insect control; criticism and restriction; and, finally, a determined effort to find the appropriate uses for a powerful tool.

DDT

(dichloro-diphenyltrichloroethane) was first synthesized in 1874 by an Austrian graduate student, Othmar Zeidler, at the University of Strasbourg. Othmar published an account of the molecule and how he had synthesized it, but neither he nor his advisor recognized any particularly interesting attributes in it. DDT remained in obscurity for six decades - part of a growing library of synthetic organic molecules that had been discovered, along with their means of synthesis, but without any known uses. This chapter came to an end in 1939, when Paul Müller, a researcher at the Geigy company in Basle, Switzerland, who had been looking for chemicals that might help control

Colorado potato beetles, announced that DDT was a potent insecticide. The Swiss government retained its neutrality in the world war, and secretly sent samples to the Allied and Axis forces, in Nov. 1942.

The first uses of DDT were as a public health pesticide, to protect against lice and mosquitoes in war zones. 2.5 million had died of louse-borne typhus in World War I, and by late 1942 malaria was increasingly a concern for all armies. Since 1940, the U.S. National Research Council had been organizing research among industries and foundations for an effective mosquito repellant, and U.S. military research by the medical branch of OSRD had begun in 1941. The new samples from Switzerland were rapidly handed to army and USDA researchers in Florida, and by February of 1943, DDT was shown to be one hundred times more toxic to mosquito larvae than any known alternative. In October of that year a heavy outbreak of typhus occurred in Naples and none of the customary relief measures helped. The U.S. General responsible for the area took a chance, and had 1.3 million people dusted with DDT in January 1944. In three weeks the epidemic was over - the first time in history a typhus outbreak was brought under control in winter - and DDT quickly became the tool of choice vs. insect-borne diseases, both in ir4.rutgers.edu

- by Karl Malamud-Roam, IR-4

war zones and elsewhere. Four years later, Dr. Müller was awarded the Nobel Prize for his discovery, and for the positive results of DDT use in protecting public health.

Perhaps inevitably, the good news about DDT was spread by farmers, foresters, and housewives, as much as by public health officials, and its popularity soared. Within months of the success in Naples, a Geigy press release in 1944 touted ". . . Geigy believes that it has the support of the USDA in predicting that the general commercial production of Gerasol [DDT], when the military needs have been accommodated, will open the way to what may be regarded as a revolution in the economy of agriculture and in the quantity of the world's food output...."

As the Nobel citation noted, DDT was easy to make, cheap, effective, and exceedingly stable often retaining its effectiveness on treated surfaces for many months. A new age of chemical control of insects had begun. In agriculture, it was widely used on many crops; foresters treated vast expanses to control gypsy moths; and householders replaced moth balls and toxic compounds based on lead or arsenic with flit guns loaded with a host of apparently safe new DDT products. The vector control story was not over with this new tool that was



Early Days of DDT Soldiers and Refug



Penn Salt Ad, Time



DDT Spraying f Moth Control,



The Modern Indoor Resid Malaria in M (Photo credi

ntial End of a Maligned Pesticide

Public Health Pesticides Program Manager



- Delousing ees in Italy



e Magazine, 1947



or Gypsy 1958



Face of DDT lual Spraying vs. lalawi, Africa t USAID)

effective, cheap, and apparently non-toxic to people, it was possible when the war ended to contemplate the undertaking of the global eradication of malaria! With the enthusiastic and urgent belief that time and money were of the essence, and improved anti-malarial drugs, in addition to the availability of DDT for vector control, the nascent World Health Organization (WHO) in 1955 publicly launched this campaign, and over the next decade, despite some major gaps (e.g. most of Africa!), this ancient affliction was eliminated in much of the world, and sharply reduced elsewhere.

It was too good to last. Insect resistance to the toxic effects of DDT had been rapidly noted wherever it had been widely used, and concerns were inevitable, if initially muted, about the potential impacts of persistent chemicals that had been developed as poisons, for at least some species. Rachel Carson articulated and popularized these concerns in her 1962 book Silent Spring, which addressed chemical use in general, but which focused on DDT and the risks associated with its indiscriminate use. The book coincided with a general public unease about new technologies, and the backlash was fast and furious – by 1972 the global campaign against malaria was essentially over, and DDT was banned for most uses

in most of the world.

But if relatively wealthy Americans and Europeans could happily live without DDT, in large part because they could afford more selective and less durable alternative pest control technologies, many in the poorer parts of the world could literally not live without it. When DDT was banned in the developed countries, its popularity dropped everywhere, as donors were unwilling to supply it even where it was still legal, and in 1981 WHO pulled support for the chemical. Tragically, malaria rebounded dramatically in many places in the years after DDT was banned; while the ban was not the only reason for this, it seems likely that many people died while this effective intervention could have been used. After 25 years, WHO acknowledged that DDT was a critical vector control tool and in 2006 again sanctioned its use for public health. It is now used widely again in India and many countries in sub-Saharan Africa, both against malaria-transmitting mosquitoes and other blood -sucking, disease-carrying insects.

The most recent chapter in the DDT saga thus reflects a tension between the competing needs to eliminate or at least control vector-borne diseases globally, and to eliminate persistent chemicals with toxic effects. The 2001 Stockholm Convention on Persistent Organic Pollutants was a global treaty to protect human health and the environment from chemicals that "remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have adverse effects to human health or to the environ- ment." DDT has been on its short list of chemicals targeted for global elimination since the Convention was adopted ten years ago, but its member states have also recognized the compelling need to retain vector control tools if they have no feasible and acceptable alternatives, and have sanctioned the continued use of DDT until it can be safely phased out.

The Secretariat of the Stockholm Convention, and the United Nations Environmental Program (UNEP) generally, has been collaborating with WHO and others to identify and evaluate possible alternatives to DDT, but until recently no global review of public health pesticides has been available to help support this effort. In July of this year, however, the IR-4 Project published Public Health Pesticides: An Inventory of Chemical Tools for Vector Control (IR-4 Special Publication-PH1, 2012, www.ir4.rutgers.edu), and UNEP staff immediately adopted the new Inventory as a resource. While it is not yet clear whether any of the materials in the Inventory will be able to fully take the place of DDT, for now, IR-4 is a major partner in the efforts to answer that question.

Information Exchange

Tour *continued from page 5* While the tour did not focus on Public Health Pesticides, the emphasis on protecting and maintaining Public Health through other means was apparent in provision of high quality nutrition to local populations, maintenance of the





cold chain, and meticulous logistics employed by Produce Source Partners. Helping to deliver high quality nutrition is a grassroots effort that deserves more support, as childhood obesity is becoming an all too common occurrence in many areas of the country. Directly and indirectly, these growers and packers are laboring to stem the tide of obesity by ensuring that healthy food is readily available for those who demand it. Cold-chain management was another aspect that, at first, was seemingly minor. However, when Mr. Parker, from the packing plant, began comparing shelf life of the various product types. I was astounded at how much of a difference there is among the different fruits and vegetables. Keeping in mind the previous statements regarding the provision of produce to local communities, it made the practice of effective cold-chain



management that much more relevant.

The tour of Produce Source Partners was intriguing. To me, the most interesting aspect of their operation was the focus on tracking and accountability of shipments. I was duly impressed by the control they exerted over their warehouses and the identification systems used to keep an accurate and up-to-date running inventory. It was also interesting to hear about the different clients that did business with Produce Source Partners; many of their partners were agencies within the Federal Government, in addition to different branches of the US Military and auxiliary groups. This brought up a question in my mind: how do they handle food recalls and ensure the safety of their supply chain? I had my questions answered when Daniel Budi, Director of Sales, explained how their tracking system allowed them to respond quickly and efficiently to an FDA recall. Their identification of each individual box and pallet of product provided immediate origin, location and destination information that was then leveraged into a coordinated response and

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the recall. This underscored the importance of cooperation and communication that is paramount in any Public Health response handled at different levels of government and in commercial enterprise. Overall, my impressions of the tour were very positive. Despite the sweltering heat and the freezing temperatures at Produce Source Partners, it was well worth the extremes in order to get a sense for the types of operations that our work within IR-4 and with EPA impacts on a daily basis. In a sense, we are all involved with protecting Public Health by ensuring that the tools growers employ will not have adverse effects on themselves, their employees, or others down the line, all the way to the consumer.👹

proved their growers and

products were not involved in

Leon Schermerhorn has been hired on a one-year appointment to assist in the Public Health Pesticides Program. Leon will be updating the PHP Inventory and updating the PHP database. He can be reached at schermerhorn @aesop.rutgers.edu or 732.932.9575 x 4636

Cold-chain management where vegetables are being quick cooled with ice water at Parker Farms.

Spotlight on Ornamentals

Boxwood Blight

- by Cristi Palmer, IR-4 Ornamental Horticulture Manager

Boxwoods have been staple hedges for several hundred years. Many formal garden displays have boxwoods because they are easy to maintain and can be pruned into exotic shapes. Quite a number of the historic homes from the 1700's and 1800's are landscaped with boxwood hedges established soon after construction. This is partly why this new Boxwood



Photo by Greg Parra, USDA-ARS

Blight has gained so much attention. The loss of historic landscape plantings to an invasive disease is devastating!

Boxwood blight is endemic in Europe, but several U.S.states reported it for the first time last year after experiencing very heavy rain storms in early fall. Current states reporting presence of Boxwood Blight include CT, NC, MD, VA, RI, MA, OR, NY, PA and OH. British Columbia and Ontario, Canada also reported infections. Although Boxwood Blight first appeared in Europe during the 1990's, the origin of this disease is currently unknown. Boxwood foliage becomes blighted and plants may become defoliated. This weakens the plant and makes it susceptible to other fungi which then colonize

and kill.

Right now, eradication efforts are voluntary. Efforts include burning of infected plants, bagging plastic pots and putting them in approved landfills, and even burning all debris on the ground with flamethrowers. A North Carolina grower lost about 15,000 pots in less than 10 days after experiencing three weeks of heavy rains. This grower has since gone out of business. And it is estimated that more than \$3 million worth of boxwood has been destroyed in Connecticut so far. The annual wholesale value for boxwoods is \$100 million. Without mitigation, it is estimated that widespread incidence could lead to \$20 million in losses annually.

This fungus has been known by three names: Calonectria *psuedonaviculata*, which is the taxonomically correct one, Cylindrocladium pseudonaviculatum, which is the asexual name, and Cylindrocladium buxicola which has been used often in the research literature and can be easier to pronounce. This fungus survives as mycelia or micro-sclerotia in plant tissues. The disease is spread by spores which are very small and can stick to animals, people, clothes, and equipment, among other things. Infections can also spread by spores in water and infected leaves. Ongoing research in Europe is examining

how long infected leaves can be sources of new infections after being buried in soil; so far these

leaves have remained viable sources for 6 years.



The American

Nursery and Landscape Association (ANLA) has established a fund for growers to contribute monetarily to the research effort and has created a Boxwood Blight Working Group composed of woody plant growers to advise ANLA on priorities and research direction.

The USDA Animal and Plant Health Inspection Service (APHIS) has provided funding for a multi-institution collaboration to study fungicide, disinfectant, and cultural strategies to manage this disease and to develop two new PCR assays for more rapid, early diagnosis. The IR-4 Ornamental Horticulture Program is collaborating with researchers from the Connecticut Agriculture Experiment Station (CAES), North Carolina State University (NCSU), and USDA Agriculture Research Service (ARS) to build on the limited European data, tailoring the research priorities to benefit US growers. In addition, researchers from Cornell's Long Island Research and Extension Center (LIHREC), Virginia Department of Agriculture and Consumer Services (VDACS), and Virginia Tech (VT) will add their expertise to successfully implement this project. continued on page 10

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Codex Committee on Pesticide Residues advances nearly 400 MRLs for 30 pesticides

—by Dan Kunkel, IR-4 Associate Director

The Codex Committee on Pesticide Residues (CCPR) met from April 23-28, 2012, in Shanghai, China. The Committee approved nearly 400 draft maximum residue limits (MRLs) for 30 different pesticides. The draft MRLs will be forwarded for final adoption by the full Codex Commission at its meeting in July. The CCPR also discussed the use of the proportionality approach to combine data sets and extrapolation principles to derive MRLs. Unfortunately a number of countries including those of the European Union delayed advancement of five specific examples where proportionality was used to set MRLs.

The CCPR group did support the continued work on a pilot project for conducting nationalglobal joint review process for new pesticides and where JMPR would set the reference standard for the MRL levels, which member countries would then consider in setting their own national standards. The electronic working group on minor uses will continue drafting a discussion paper on MRLs for pesticides for minor crops and specialty crops and the group will continue to develop criteria to determine the number of field trials needed to set MRLs for minor crops/specialty crops, the group will now be chaired by France and US will no longer co-chair the group.

The CCPR successfully advanced the classification for the "fruit type" commodity group which includes: citrus fruits, pome fruits, stone fruits, berries and small fruits and assorted tropical and subtropical fruits, edible and inedible peel. The Codex Commission is expected to provide the final adoption of these commodities at their July meeting. As well as the companion document Principles and Guidelines for the Selection of Representative Commodities for the Extrapolation of Maximum Residue Limits for Commodity Groups is also expected to be approved by the Commission in July.

The new JMPR work plan priority list of compounds was also set at the meeting. IR-4 has dovetailed a number of commodities with the work plan and continues to review for future submission considerations.

Blight continued from page 9

In addition to working on mitigation and diagnostic strategies, members of the research team have already conducted preliminary host range studies and have confirmed Sarcococcus as a host as well as demonstrating that Pachysandra is also a host. In fact, Pachysandra infection in the landscape has already been reported this summer.

As new information is discovered, the researchers and state extension personnel will update the recommendations for managing Boxwood Blight.

The Research & Advisors Team

Mike Benson (NCSU) Joe Bischoff (ANLA) JoAnne Crouch (USDA-ARS) Norm Dart (VDACS) Margery Daughtrey (LIHREC) Sharon Douglas (CAES) Chuanxue Hong (VT) Kelly Ivors (NCSU) James LaMondia (CAES) Robert Marra (CAES) Amy Rossman (USDA-ARS) Nina Shishkoff (USDA-ARS)



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Kudos for the ACAC

Committee!

Progress and cooperation are two of the positive outcomes from the formation of the IR-4 Analytical Chemistry Advisory Committee (ACAC). The committee was formed in 2009 in response to the need for lab standardization and better communication among the labs, Headquarters, the Quality Assurance Unit and the Project Management Committee (PMC). Current members include the regional lab coordinators (RLC), —Matt Hengel, Wlodzimierz (Wlodek) Borejsza-Wysocki, Tom Hendricks. Sue Erhardt. and Todd Wixson, IR-4 HQ representatives—Dan Kunkel, Debbie Carpenter and Johannes Corley, Quality Assurance Unit representative-Sherita Normington (who has replaced recently retired Jim McFarland) and PMC representative, David Soderlund.

The initial goals for ACAC were to:

 review lab policies and procedures as a continuation of the Laboratory Guidance Document,

2) adjudicate issues when there are disagreements, and3) facilitate dialogue between study directors and RLCs.

ACAC's first task was to take an inventory of lab equipment and personnel and report to the PMC recommendations for both. That was a simple task compared to the challenges that soon arose due to the closure of the Northeast lab. With that closure. it was understood there would be a backlog of samples until the planned ramp up of the remaining labs. On top of that, new and more complex chemistries were being introduced for which methods had not yet been evaluated, a freezer failure destroyed many samples that were waiting to be analyzed and finally, to everyone's surprise, USDA-ARS suddenly closed the Beltsville lab. This laboratory group was now in crisis mode.

Things needed to change and change fast. The PMC directed the ACAC committee to meet regularly and as a result, they began finding ways to increase collaboration. Two labs were using older equipment and couldn't perform some of the more complicated analyses; the other labs agreed to pick up those samples in order to keep the studies moving. Their regular meetings also allowed everyone on the ACAC committee to understand timelines and priorities that needed to be completed in order to remain credible in the eyes of IR-4 Stakeholders. The committee also valued the expertise within the group and share information to expedite solutions to analytical problems. The freezer failure forced the Tifton lab to design a new system of checks and balances to prevent/minimize future freezer failures. This information was shared among the group to

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help others design similar precautions. And together, the group also figured out how to complete many of the Beltsville studies in-house providing cost savings. The group has really jelled.

Now the focus of ACAC is looking at other areas to streamline, such as updating the Laboratory Guidance Document and standardizing Analytical Study Reports. "There is a feeling among the group that the changes they have made have really stuck," stated IR-4 Assistant Director, Registrations, Debbie Carpenter. "This group is no longer satisfied with being good; they are moving the goal to be GREAT."

As a result of increased collaboration, communication and cooperation, the ACAC committee has achieved a notable decrease in the backlog. "The level of cooperation within the ACAC committee has led to increased productivity and throughput," stated IR-4 Executive Director, Jerry Baron. "This group of hardworking men and women is to be commended for their tenacity and forward thinking. Kudos to members of the ACAC committee!"

2013 IR-4 National Education Conference

-by Van Starner, IR-4 Assistant Director

The next IR-4 National Education Conference (NEC) is being planned by the IR-4 Education & Training Committee (E&TC), for Feb. 27 - Feb. 28, 2013 at the Drury Plaza Hotel in San Antonio,TX.

All IR-4 Field Research Directors, technicians, Laboratory Research Directors analysts/technicians, Regional Field Coordinators and Quality Control reviewers, Quality Assurance officers, Study Directors and any others involved in IR-4 GLP research are encouraged to attend.

Construction of the agenda for the 2-day NEC is currently well



have the opportunity to choose from several optional topics offerings, and to convene for regional breakout discussions. The conference will close with some "lighter-side" activities, award presentations and a brief recognition of 2013 being the 50th year since IR-4 was founded (in 1963)!

Stay tuned for more details about conference registration and hotel reservations in the coming months; for more information, contact the E&TC Chair, Van Starner at IR-4 HQ, 732-932-9575 x4621 or starner@aesop.rutgers.edu.

Reserve the Dates − You Don't Want to Miss It!!! ₩



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