The IR-4 Project
Providing Safe and Effective Pest Management Solutions for Specialty Crop Growers

Newsletter

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The First Global Minor Use Summit: Striving Toward Harmonization

Welcoming participants to the Global Minor Use Summit included, l to r, FAO Director of Plant Production and Protection Division, Shivaji Pandy;USDA Under Secretary for Research Education and Economics, Gale Buchanan; FAO Specialist, Gero Vaagt, US EPA Assistant Administrator, James Gulliford, and IR-4 Executive Director, Jerry Baron.

Nearly 300 people, representing 60 countries, registered for the first Global Minor Use Summit, which was hosted by the Food Agriculture Organization (FAO) of the United Nations and held at their headquarters in Rome, Italy. The week-long event, focusing on pesticide use on Specialty or Minor Crops, took place from December third through the seventh, 2007 and was jointly organized through FAO, the USDA Foreign Agriculture Service (FAS), the U.S. Environmental Protection Agency (EPA) and the USDA / IR-4 Project (IR-4).

The need for a global discussion stems from trade barriers due to the inconsistencies of minor crop pesticide residue standards amongst nations. IR-4 Executive Director, Jerry Baron, stated, "The purpose of the Summit is to develop a basis for future cooperation by focusing on a global agreement in pesticide policy, procedure and methodology. The overriding goal of this cooperation is to promote free and fair trade between nations."

Minor crops (as defined by EPA) include both food crops and ornamentals where total production is less than 300,000 acres or those crops for which there exists insufficient economic incentive for a registrant to support initial or continuing registrations. These crops are generally high-value crops such as fruit, vegetables, nursery plants and ornamental crops that individually involve small acreage, but yet account for more than $40 billion in annual production. Although they are grown on low acreage compared to corn, wheat, and soybeans, minor food crops occupy 12 million acres of U.S. farmland and account for approximately 40 percent of all U.S. crop sales (2002 Agriculture Census).

Global Minor Crop production is increasing, USDA Under Secretary for Research, Education and Economics, Dr. Gale Buchanan stated, "Globally, during the last 25 years, trade in specialty crops has expanded more rapidly than trade in other agricultural commodities. For example, world trade in fruits and vegetables grew from $3.4 billion in 1961 to nearly $70 billion in 2001, however, not all nations have benefitted," particularly developing nations. According to the 2007 FAO Report on the *State of Food and Agriculture*, in

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Summit

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2001, developing countries had a 56 percent share of the trade in non-traditional crops. This market is currently dominated by a small number of countries and some countries dominate the market with just one

product, for example, Kenya with green beans and Malaysia with "minor" tropical fruits. In his opening remarks, FAO's Plant and Protection Division Director, Dr. Shivaji Pandey, stated, "Specialty cops are of highest relevance for trade in agricultural products, and the limited access to export markets is also related to the scarcity of international standards." Dr. Gero Vaagt, a specialist with FAO's Plant Production and Protection Division, concurred, "For some countries these crops aren't minor at all, national economies depend on them."

The Summit agenda included presentations on the current state of specialty crop programs initiatives and challenges from regional, grower and business perspectives. Day two focused on technical initiatives and challenges, cooperation and policy considerations, with the third day putting participants to work in break-out sessions where they collaborated to provide practical recommendations for action. The final day and half was dedicated to training sessions covering Good Laboratory Practices, and data review procedures.

The outcome of the first Global Minor Use Summit included the following recommendations.

Day three was set aside for participants to share their expertise in Break-out groups. Breakout group leaders (pictured l to r) are Mario Wick, Peter Watson, Dan Botts, Moderator, Lois Rossi, Peter Chan, Alan Norden and Dan Kunkel. Not pictured are Roberto Ganzales, Yongzhen Yang, Raj Bhul and Susanne Sütterlin.

In the area of communication, participants recommended:

- Facilitate an opportunity for commodity groups from all regions to interact on pest management issues and needs
- Develop a single, clear communication message on the meaning of MRL's
- Develop a system to identify minor use crop/pest combination needs from all regions Establish a working group on minor uses through the Codex CCPR Continue global collaborations
- Facilitate a Global Minor Use Summit II Expand the established Minor Use List Server as a communication tool Establish a global minor use information sharing web based portal

Data generation for residue and efficacy recommendations were:

- Continue to support the best use of data in the following areas:
- Global Zoning based on comparable agro-climatic conditions Extrapolation /Crop Grouping
- Efficacy Data Sharing Develop the process and

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The Efficacy and Crop Safety Data Development break-out group lead by Alan Norden and Susanne Sütterlin discuss recommendations for global cooperation

protocols that facilitate Global Residue Program
- Develop a common portal consisting of links to national data and information websites including (but not limited to) crop grouping schemes, MRL regulation, pest management need/gaps, authorizations to facilitate data sharing
- Develop a reliable publicly available database of current and ongoing residue and efficacy studies throughout the world
- Harmonize formats, data structure, codes and code systems

Crop Grouping allows for better efficiencies in registrations. Participants provided the following recommendations for Crop Grouping.

- Support Codex in revising Codex Classification of Food and Animal Feeds including the consideration of the concept of representative crops
- Recognition of the value of an international crop grouping scheme with representative crops is important in facilitating authorizations for minor crops
- Encourage the development of harmonized global crop grouping scheme for efficacy data

MRL Harmonization is key for promoting trade. Participants provided the following harmonization recommendations.

- Continue support of multi-lateral review efforts/ simultaneous decisions and encourage expansion to all regions
- Extend multi-lateral review work of new active ingredients to cover label expansions
- Harmonize national MRLs and/or accept Codex MRLs
- A glossary of terms would be useful
- Consider a pilot study to examine the reason for differences in national and Codex MRLs for a specific pesticide/crop combination
- Support ongoing FAO and OECD guideline development for minor uses
- Good Agricultural Practices (GAPs)
- Residue Definitions
- Methods for establishing MRLs
- Dietary Risk Assessment

Explore the concept of a simultaneous JMPR and national review to facilitate the establishment of Codex MRLs prior to national MRLs

Other recommendations included:

- Propose to CCPR, to consider problems related to specialty crops and minor uses
- Support establishment of government funded IR-4 "like" Programs
- Encourage incentives for the development of label expansion for minor uses
- Maintain adequate number of efficacious crop protection tools in all regions to manage resistance
- Facilitate the solution to the crop damage liability situation
- Facilitate dialogue with stakeholders in regards to private standards
- Build capacity in developing countries with emphasis on biological pesticides, reduced risk products and IPM systems

The Summit was the beginning of a dialogue for the future and a great success. Participants were asked to complete a survey expressing their opinion of the event and requesting input for improvement. With 50 percent of participants responding, 91 percent agreed, there should be another Global Minor Use Summit, 48 percent recommending a second Summit being held in 2009 and 34 percent recommending 2010. Suggestions for future Summit included, more participation by EU and member states regulators, growers and industry, and a common definition of terms.

One result of the Summit was the creation of a Global Minor Use Information Portal. The portal, which can be found at http://ir4.rutgers.edu/GMUS/GMUSportal.htm. provides links to various agencies as well as links to the Global Minor Use Summit Booklet and presentations.

Under Secretary for Research Education and Economics, Gale Buchanan enjoys the view of Rome from the roof of the FAO building with AAAS Science and Technology Diplomacy Fellow, Julie Callahan.

A Follow-up on Colony Collapse Disorder

—by Mike Embrey, Supervisor and Extension Apiculturist at the University of Maryland's Wye Research and Education Center

A year as passed since the first cases of colony collapse disorder (CCD) appeared and we still have not shown a cause-and-effect relationship with any factor. The consensus among researchers is that a combination of factors may be affecting honeybee colonies rather than just one. We do know a great deal more about the symptoms of the problem than we did a year ago but not the problem itself.

One pattern in CCD is that the over whelming majority of cases have occurred in colonies used in migratory pollination programs. These colonies are subjected to much more management stress than locally kept bee colonies. Too much stress can lead to immune suppression in honeybees and poor resistance to diseases, poor nutrition, and pesticides, which together can cause CCD-like symptoms.

Why is there so much stress? It all comes from the fact that there are too few beekeepers, and an ever expanding demand for pollination (especially from almond growers) in our modern intensified agricultural system. Every year we lose more and more beekeepers to retirement and too few younger ones coming into the business. Five years ago, there were enough beekeepers on the west coast to handle the demands for pollination. Now honeybee colonies are moved by truck across the country every year for pollination. The combined effects of long distance transportation and malnutrition from pollinating crops with poor quality pollen can certainly weaken bees and compromise their immune system.

Obviously management stress is just one possible cause of CCD. Bee researchers are looking at all possible factors that could contribute to this disorder. At the University of Maryland, Dr. Galen Dively and I began an investigation in 2007 to examine the effects of pesticides as another one possible contributor to CCD. Our work focuses on imidacloprid which is widely used on cucurbits and other crops pollinated by bees. This systemic pesticide is normally applied at planting and can persist for several weeks or more in plant tissues. Imidacloprid, like other systemics, accumulates primarily in the vegetative parts of plants and much less in fruiting structures. Nevertheless, it is possible that even low levels of imidacloprid in pollen and nectar could sublethally expose honeybees, which could lead to chronic effects.

In our first experiment, replicate plots of watermelons were treated with the low labeled rate of imidacloprid using two application schedules. We collected male flowers, extracted stamens, and took washings of stamens to remove pollen to analyze for imidacloprid and its metabolites. Samples have been sent to the National Science Laboratory in NC for analysis. Knowing the levels of imidacloprid in watermelon pollen and flower parts will not lead to any cause-and-effect conclusion but will provide insight into potential environmental exposure doses. Based on samples analyzed so far, detectable levels have been less than 20 ppb – well below LC50 concentration of imidacloprid for honey bee acute toxicity. However, we intent to use this information to provide a basis for designing realistic exposure regimes in field studies with functional hives.

In 2008, we will employ a functional hive experiment to examine potential chronic effects of sublethal exposure to imidacloprid (probably less than 100 ppb) on the brood performance and foraging behavior of honeybees. This work will compare colonies fed an imidacloprid-treated diet over multiple broods with control colonies fed untreated diet. The test period will represent an exposure regime that pollination hives might be subject to during a typical growing season.

As for CCD, according to Jerry Hayes, Apiary Inspector for Florida, they are beginning to see new cases of CCD in his state as of late October. The problem is re-appearing; it is vexing all of us and much more needs to be done.

The Details of Success

Here's a vexing problem, you're a citrus grower in California who has half a million Argentine Ants invading each of your citrus trees each day. Every tree, every day, adds up to half a million ants per day headed up the trunk of your tree. With typical citrus orchards planted at over one hundred trees per acre, this corresponds to fifty million ants per acre scurrying virtually non stop up your trees.

Why is this a problem? As discussed in a previous IR4 newsletter, the ants interfere with the biological control of scale and mealy bug pests. These insects were usually kept in check with natural predators until the ants arrived on the scene. This symbiosis of ants and insects has now amounted to significant economic losses for California citrus, grape and permanent crop growers.

The mechanics of addressing this pest problem have required the patient work of University of California researchers like John Klotz and Michael Rust of UC Riverside and extension specialist Les Greenberg. The intricate behavior of so called social insects like ants makes controlling them a particularly difficult biological problem.

At Riverside Drs. Klotz, Rust and Greenberg spent decades studying the invasive Argentine ant to understand its basic biology and applying this knowledge to practical control methods. Because ant biology is significantly different than many other insect pests the use of bait stations was shown to be the most effective manner of ant control. The cumulative

Less toxic bait stations help to rid citrus groves of Argentine ants. " Photo Courtesy of UC Statewide IPM Program, Les Greenberg.

efforts of UC Riverside researchers demonstrated that liquid ant baits could effectively control the invasive ants. The practical problem remained as to registering these ant bait compounds.

IR4's critical role in this problem culminated in 2006 when Dr. Keith Dorschner presented the EPA with an argument to treat the ant bait dispensers as a non-food use. In non-EPA speak this means that because the actual pesticide does not come in contact with the food crop, the use can be registered without setting a pesticide residue tolerance. Clearing this regulatory hurdle expedited the regulatory process for manufacturers to pursue federal and state registrations.

Following a 2006 symposium on ant control, the year 2008 will mark the commercial launch of the first ant bait product, Vitis ® marketed by Bayer Crop Science. This imidicloprid based insecticide liquid solution is now registered federally and in the state of California. One unique aspect of this registration is that the product is labeled for particular ant species "for management of sugar-feeding ants in agricultural crop environments." This practically means that any crop with a sugar

John Klotz, entomologist, UC Riverside, uses bait stations in a citrus grove to get rid of Argentine ants. Photo Courtesy of UC Statewide IPM Program, Les Greenberg.

feeding ant problem can now utilize the product. Having a label with this use flexibility is a great benefit to growers and is directly related to the product's designation as a non-food use.

Through the dedicated and persistent efforts of UC researchers, along with the assistance of IR4's Dr. Keith Dorschner, growers now have a new tool to attack a serious pest management problem. This first tool will set the stage for other active ingredients to follow including the use of organic control methods. The first fruit of many years of labor can now mature into a diverse array of new products to effectively control ants in permanent crops. The partnership of land grant universities like the University of California is the essential prerequisite for IR4's task to deliver safe and effective pest control solutions for specialty crop growers.

Canada's Pest Ma

— by Shirley Archambault, P.AG./agr Coo

Canadian and U.S. horticultural producers share many of the same challenges and opportunities in an increasingly dynamic North American marketplace. Consumer choices are increasing rapidly and this includes the availability of newer fruit and vegetable varieties and other non-food horticultural commodities. International trade agreements through NAFTA or the WTO have increased the movement of food products. In 2006, Canada exported $5 billion dollars in horticultural products, and imported $3.4 billion in fresh fruit and vegetable products, mostly from our neighbors in the U.S. As well, Canada's greenhouse industry has surged in the last decade, with 5300 acres now under glass or plastic, about three times the size of the U.S. greenhouse industry.

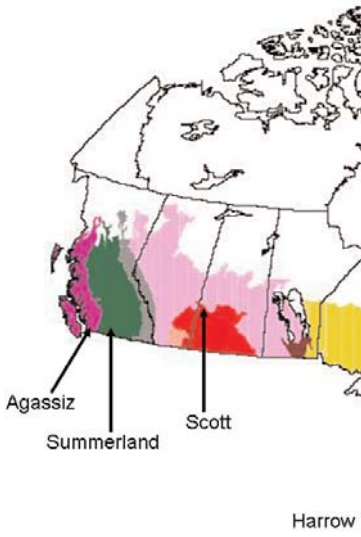
One of the biggest challenges for farmers in both countries is having access to safe, effective and affordable tools to protect their investments in the field from weed, insect and disease pests. In 2003, Agriculture and Agri-Food Canada (AAFC) created the Pest Management Centre (PMC) to facilitate the development and implementation of new crop protection tools and technologies to assist growers in becoming more competitive, while positioning Canada as the world leader in environmentally responsible production by improving air, water, and soil quality, and conserving biodiversity. The PMC looked to the IR-4 Program as a model for the establishment of the Minor Use Pesticide Program which is one of the three programs developed at the Pest Management Centre, including the Pesticide Risk Reduction and the Minor Use Research programs.

This issue of the IR-4 newsletter highlights the Minor Use Pesticide Program.

Minor Use Pesticide Program (MUP)

The term "minor use" is how specialty crops are described in Canada: high-value, low acreage crops where the amount of pest control products applied is very limited. Less than 2% of all agricultural pesticides used in Canada are applied on fruit, vegetable and other horticultural crops.

The MUP complements the existing roles and responsibilities of pesticide manufacturers in making regulatory submissions to Health Canada's Pest Management Regulatory Agency (PMRA), and encourages manufacturers to register products in Canada. Each spring, the PMC facilitates a priority setting workshop involving grower representatives, manufacturers, provincial minor use coordinators, provincial specialists and IR-4 representatives to identify and match key crop/pest problems with potential solutions. For trials involving label expansions for active ingredients registered in Canada, PMRA offers through a Pre-submission Consultation Request process, to determine what information is needed in addition to the data that is already available to the Agency from the original registration of the product. Generally, the PMRA will require data on efficacy, crop tolerance, food residues and sometime information on occupational exposure that is specific to the proposed use. The PMC then completes field trials to collect the required data, conducts laboratory analyses of the residue samples and prepares a submission to PMRA on behalf of growers.



Since 2003, PMC has conducted over 2,400 field trials involving 84 different crops to generate product efficacy, crop tolerance and residue level data. As of December 2007, 105 regulatory submissions to

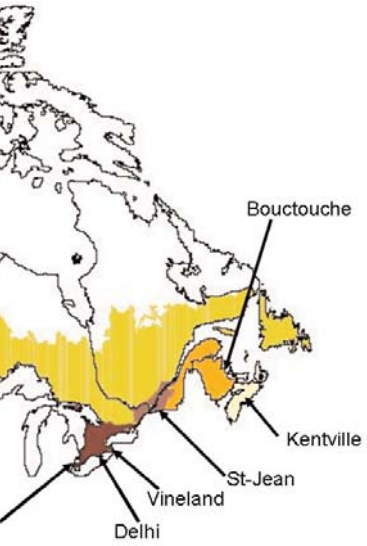
Celery trial in St-Jean, QC

Ginseng trial, Simcoe ON

Lettu trial, Jean, QC - Mart Truc

anagement Centre

rdinator, Pest Management Centre Canada



the PMRA have been made, and over 50 have been accepted, resulting in many new uses. Not all projects result in submissions, as projects are sometimes terminated for reasons such as the withdrawal of company support due to phytotoxicity, lack of pest pressure or poor performance.

Field trials are undertaken at AAFC research sites across the country and through contracts with private crop consultants to generate the required information. The AAFC Research sites are located across the country to reflect the zoning map: Agassiz, British Columbia (zone 12), Summerland, British Columbia (zone 11), Scott, Saskatchewan (zone 7, 7A and 14), Delhi, Vineland and Harrow in Ontario (zone 5), St-Jean in Quebec (zone 5B), Kentville, Nova Scotia (zone 1A), and Bouctouche, New Brunswick (zone 1). All of the sites have specialized facilities equipment and crop growing capability to support field trails. However, laboratory analyses are contracted out.

Overall, the time required from choosing a priority pest problem to submitting a registration application to PMRA is approximately the same in both Canada and the U.S: 30-36 months.

Canada-U.S. Cooperation - Sharing Creates Efficiencies

The PMC is also collaborating with IR-4 on joint projects with the goal of having new uses registered in both countries simultaneously. Within four years this partnership has worked jointly on 87 projects involving both food and non-food uses and submitted 13 joint registration packages to regulatory agencies in Canada and the U.S. on behalf of growers. An additional 17 new joint projects will be conducted during the 2008 growing season. PMC will sponsor 2 of these studies.

PMC is working collaboratively with IR-4 on the NAFTA Technical Working Group on Pesticides, which continually seeks ways to harmonize pesticide regulations. Both are preparing joint submissions to PMRA and EPA to be reviewed concurrently under the NAFTA minor use joint review process, which provides a shorter review time-frame. Growers in both countries benefit by achieving timely access to new pest management tools simultaneously.

As well, the Pest Management Centre and IR-4 work with manufacturers to screen new pesticide compounds which are not yet registered in either country. This "upstream" work will result in more minor uses being available when the initial registration does occur. Both countries strongly encourage pesticide manufacturers to take advantage of the economic and reduced review time benefits offered through the joint review process.

Although Canada-U.S. cooperation has progressed substantially, Canada faces a significant technology gap in the number of crop protection tools available for growers. However, incentives such as PMRA's Project 914 will help in reducing that gap.

The collaboration between AAFC and IR-4 was recognized as a model at the Global Minor Use Summit. This collaboration will expand as AAFC becomes involved in the sponsorship of more studies. Growers in both countries will continue to benefit from having access to effective pest management tools at the same time, increasing their competitiveness.

Look for more information on the Pesticide Risk Reduction and Minor Use Research Programs in the next issue of the IR-4 Newsletter.

Plum trial in Summerland, BC

Tomato GH trial in Harrow, ON – Geoff Riddle

Victoria Brookes, Agassiz, BC raspberry application

IR-4 New Hires and Retirees

ARS

State Liaison Representatives (SLR)

Theodore Webster will serve as the new Liaison Representative for weeds in the south replacing **Howard Harrison** who served in the position since 1993. Theodore is a Research Agronomist at Tifton, GA. His current research is directed towards the study of the ecology and management of three weeds:
1) nutsedges in vegetable cropping systems in the absence of methyl bromide,
2) Bengal dayflower (aka tropical spiderwort) in agronomic crops, and
3) glyphosate-resistant Palmer amaranth in agronomic crops.

Niklaus J. Grunwald is the new ARS SLR for Oregon. Niklaus is a Research Plant Pathologist with the Horticultural Crops Research Laboratory, USDA /ARS, in Corvallis, Oregon. His principal research interests include the ecology, genetics and management of emerging and re-emerging Phytophthora diseases affecting ornamental and nursery crops with a special emphasis on the Sudden Oak Death and Ramorum blight pathogen Phytophthora ramorum. He currently serves as senior editor of Phytopathology and editor of Plant Pathology. He is the recent recipient of the ARS Early Career scientist of the Year Award for the Pacific West area and recipient of the 2007 Syngenta Award from the American Phytopathological society. Nik received his Ph.D. in ecology from the University of California at Davis

Marty Williams is a weed ecologist with USDA-ARS and an assistant professor at the University of Illinois in Urbana. He will be filling the role of USDA-ARS SLR for Illinois. The goal of his research program is to improve weed management in North American vegetable cropping systems. To accomplish this goal, Marty conducts research on the biological interactions between crops, weeds, and their environment. Marty has a background in farming, completed a Ph.D. in agronomy at University of Nebraska, and conducted research in high-value irrigated crops of the Pacific Northwest before joining ARS in 2003.

Joe Munyaneza is the new ARS SLR for Entomology for Washington State. Joe is a Research Entomologist at the Yakima Agricultural Research Laboratory, Wapato, WA. His research focuses on IPM of insect pests of potato, with emphasis on insects vectoring potato diseases. Joe also serves as an adjunct professor in the Department of Entomology at Washington State University. He is currently the Vice President of Black Entomologists (BE), an affiliate of the Entomological Society of America. Joe received his M.S. and Ph.D. degrees in entomology from Southern Illinois University and Iowa State University, respectively.

Neil Destafano is the new IR-4Field Research Director at the USDA - ARS facility in Maricopa Arizona, in association with the University of Arizona (farm unit). Neil is a Biological Science Technician with a MS degree in Agriculture with a concentration on Soil Science. His also holds a BS in Agriculture with a concentration in Horticulture & Plant Propagation and Minor in Landscape Architecture

Previously, Neil was a Research Associate with the Department of Natural Resources & Environmental Design at N.C. A&T State University in Greensboro N.C.

Paul Wade has joined the USDA-ARS Vegetable Laboratory in Savannah, GA. He brings over 15 years of R&D experience in AG and Forestry Biotechnology Companies. Previously he worked as a Biological Science Technician at the ARS US Vegetable Laboratory in Charleston, SC. Paul is pursuing an Agriculture Degree at Trident Technical College.

HQ

In 2007, IR-4 Headquarters welcomed **Lori Harrison t**o the position of administrative assistant. Here, she is backup to Diane Infante and works with Research Scientist and other members of the IR-4 HQ team to manage the data files for all paper documents required to be archived under US EPA Good Laboratory Practice Guidelines .

Prior to joining IR-4, Lori worked in Contracts Consulting with Comcast Cable Systems.

Lori holds a BA in Communication from Richard Stockton College in New Jersey.

Northeast Region

Pim Kovach retired as Northeast Regional (NER) Laboratory Director in January of 2007. Pim joined IR-4 as Laboratory

Coordinator in 1992, after working at Cornell since 1988. Although retired, she stayed on as Lab. Coordinator until Chris Lam arrived in April, and continues, on a part time basis, to help Chris learn the IR-4 way and complete Analytical Summaries reports.

Christopher K. Lam joined IR-4 in April of 2007 as the new NER Laboratory Coordinator. Chris comes to IR-4 after several years as a Senior Scientist in Residue Chemistry at Bayer Corporation. He received his Ph.D from Baylor University, Waco, TX in 1992, and has worked in agricultural chemistry since 1994.

Larry Rossell, another cornerstone of the IR-4 program at RAREC retired in December. Larry started with IR-4 in 1993 and served as Field Research Director from 1995 through 2000, when Erin Hitchner replaced him as FRD. Since then, Larry has remained an important part of the IR-4 team, concentrating on crop production and perennial fruit management.

Southern Region

In 2007, **Kathleen Knight** joined the Southern Region as the Quality Assurance Coordinator. Kathleen brings with her over ten years experience in the quality arena. Prior to joining IR-4, Kathleen worked in the analytical research laboratory at the University of Florida, and at Regeneration Technologies, where she was employed as a Quality Control Manager. Kathleen earned her Bachelor of Science in Agriculture at the University of Florida in Gainesville. She is a member of the American Association of Laboratory Animal Science and COLA's training and Accreditation of Quality Management Systems and Quality Systems Essentials.

Western Region

Jo Banvard (Engebretson) is retiring as an analytical chemist after nearly 25 years of service to the university and IR4.

Carolyn Jolly has been hired as a new laboratory assistant.

Don Stewart and Dan Groenendale have been appointed as new Field Research Directors at the UC Davis and Washing-ton State University field research centers, respectively. Don, John Roncoroni who has moved on to a UC Cooperative Extension, Farm Advisor position in Napa County, was previously working with UC Extension on the Regional Cereals Variety Trials throughout the state of California.

Dan Groenendale replaces **Ron Wight** who has retired after a long service to IR-4 and the Western Region. Dan most recently was the director of a perennial plug nursery in Mapton, Washington.

New IR-4 Awards Process

In October, the IR-4 Project Management Committee voted on a new award structure to recognize excellence. The new IR-4 Awards process will include, maintaining the existing IR-4 Hall of Fame Award, creating a new National Recognition of Excellence Award, and creating Regional and HQ Awards. The following are the guidelines for the New Award Structure.

Guidelines for the Nomination and Selection of IR-4 Hall of Fame Awardees

1. This is the highest award made by IR-4. Only very significant contributions to the development and success of IR-4 over time should be recognized with this award.
2. Anyone from any aspect of the program is eligible for the award. Nominations may be made at any time. Nominations may be made for personnel from the private sector as well as the University system and the Federal government such as EPA and USDA. Nominee can no longer be actively involved with the IR-4 program.
3. The nominees should have made outstanding contributions that have a direct relation to the success of the IR-4 program over a long period of time. This should not be considered as an award for longevity or for a single contribution.
4. The outstanding contributions should be of a nature that they have resulted in one or more of the following:
a.Increased program effectiveness
b.Better management
c.Increased productivity
d.Establishment of liaisons or partnerships with cooperators that enhanced the program
e.Enhanced levels of recognition of IR-4 by stakeholders and/or the public

Guidelines for the Nomination and Selection of National Recognition of Excellence Awardees

1. It is intended that these should be very prestigious awards. They

continued on back page

NC State University Alumni Award

—by Rosemary Hallberg, Communication Specialist, Southern Region IPM Center, NC State University

When Jerry Baron left NC State University with his Doctorate in 1985, he began a career in the field of his dreams. From the time he was a teenager in Ohio, working for a landscaping company, Baron knew he wanted to pursue plant protection. Now Executive Director of the IR-4 Project, Baron is at the helm of the largest advocate for crop protection for specialty crops. On September 28, 2007, Baron stood with eleven other NC State University alumni as he received an Outstanding Alumni Award.

Initiated in 2001 by the NC State College of Agriculture and Life Sciences (CALS) Alumni and Friends Society, the Outstanding Alumni Award recognizes former CALS students who have used their talent to excel in their chosen field. The award is one of four different awards given by the college each year.

Joining Baron were alumni who had also made their mark on agricultural research and service. Some of the most notable included a division head with the Department of Homeland Security, the CEO of Butterball and the North Carolina Commissioner of Agriculture.

Baron said the award was an honor. "I can say I really appreciate the time that I've spent here and the time I've gotten to spend helping growers of North Carolina," he said at the ceremony.

Baron grew up in northeast Ohio, where he began his lifelong interest in horticulture. He entered The Ohio State University after high school and graduated with a Bachelor of Science degree in integrated plant protection in 1981 and an Masters of Science degree in horticulture weed science in 1982.

After finishing the Master's degree program, Baron knew that the only place to pursue his Ph.D degree program was at NC State with Dr. Thomas J. Monaco, a world renown weed scientists and horticulture professor. After receiving his doctorate in weed science at NC State University in 1985, he landed his first job with IR-4 as a research manager/coordinator. The IR-4 Project is a cooperative program between USDA, the State Agriculture Experiment Stations, the crop protection industry and the growers of fruits, vegetables, herbs, ornamental and other horticultural crops to develop data to support the registration of safe and effective pesticides on specialty crops. Baron has spent his entire career with the IR-4 Project in various roles except for a 18 month period when he was on sabbatical as Associate Executive Dean of Cook College/Rutgers University.

In September 2006, Baron was named Executive Director of IR-4 Project. This has allowed him to pursue the vision for the program which is globalization and harmonization of data development to support the registration of the newest generation of crop protection products for specialty crops. Baron explains the need, "With globalization, growers in Caldwell County don't know if their sweet potatoes will wind up in Ohio or Tokyo. Part of the long term solution is to work in cooperation with foreign countries to help the US growers have access to these critical foreign markets".

Baron sees IR-4 and the IPM community working together for the same goal: to help specialty crop growers achieve sustainability. As resources become scarcer, he said, that relationship will need to strengthen.

"We've always looked at the IPM Centers as important to the whole overall crop protection structure in the US," he said. "We're just another piece of the puzzle that helps growers protect their crops."

Clearances Sept. '07- Nov.'07

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.

Desmedipham
Trade Names: Betanal, Betanex
Crops: Garden Beet, Spinach
PR#: 00337, 01922
Federal Register: 9/19/07

Pendimethalin
Trade Names: Prowl, Pendulum, Stomp
Crops: Globe artichoke, Asparagus, Head and stem Brassica, Grape
PR#: 06623, 06660, 06387, 06504, 06505, 06506, 06507, 06773, 05740
Federal Register: 9/19/07

Bifenthrin
Trade Names: Brigade, Capture
Crops: Root vegetables except sugar beet, Soybean, Peanut, Pistachio, Mayhaw, Groundcherry, Pepino
PR#: 07089, 07556, 08304, 08851, 05175, 08584, 09219, 07513
Federal Register: 10/24/07

Fenamidone
Trade Names: Reason
Crops: Leafy vegetables except Brassica, Head and stem Brassica, Brassica

Fenamidone (cont.)
leafy greens, Fruiting vegetables, Carrot, Strawberry, Sunflower
PR#: 08894, 09461, 07976, 07977, 07845, 07963, 07623, 08524, 07999
Federal Register: 10/24/07

Fluazinam
Trade Names: Allegro, Omega
Crops: Bushberries, Edible podded legume vegetables except pea, Succulent shelled beans, Dry shelled beans except soybean, Brassica leafy

Fluazinam (cont.)
vegetables, Turnip greens, Ginseng

PR#: 06129, 07602, 08798, 06369, 08795, 08796, 08797, 09237, 08791
Federal Register: 10/24/07

Oxytetracycline
Trade Names: not applicable (antibiotic)
Crops: Apple
PR#: 04943
Federal Register: 11/7/07

Isoxadifen-ethyl
Trade Names: not applicable (herbicide safener)
Crops: Sweet corn, Pop corn, Field corn
PR#: 08970, 08904
Federal Register: 11/14/07

Sugarcane Rust

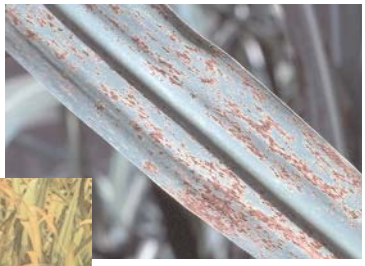
—by Charlie Meister, Southern Regional Field Coordinator

Brown rust is an important foliar disease of sugarcane worldwide and has been in the US since the 1970s.

Florida, Louisiana and Texas sugarcane industries have developed and released resistant varieties that have kept losses to a minimum. However, the long breeding cycle for sugarcane and the ability of the pathogen to adapt and overcome varietal resistance have resulted in cyclical problems with brown rust.

Orange rust of sugarcane was first observed in Belle Glade in June, 2007 and now appears to be widespread throughout south Florida. This is the first confirmation of a disease common in Asia but never found before in the Western Hemisphere. During the late 1990's orange rust caused significant yield losses(>30%) in one of Australia's most important varieties. Several of Florida's most important sugarcane varieties appear to be susceptible.

The IR-4 Southern Region Performance Program supported Louisiana research to



evaluate a battery of products for control of brown rust. Two fungicides (Pyraclostrobin and Metconazole), registered for use on many crops in the US were found to be very effective at controlling the brown rust pathogen. The IR-4 Food Use Workshop identified the two uses as high priority and research will begin next year to secure EPA tolerances that will permit sugarcane registrations.

In the mean time, Drs. Jeff Hoy (Louisiana) and Richard Raid (Florida) continue to evaluate products in efficacy testing to control these major threats to the sugarcane industry.

Awards

continued from pg. 9

will only be presented at 3 year intervals at an appropriate national meeting of the IR-4 program.
2. Prior to this national meeting, the PMC will establish an ad hoc nominating committee to solicit nominations for the award and develop formal nomination documents for consideration by the PMC.
3. Nominees can be anyone associated with the program except that active members of the PMC are not eligible to receive the award. The number of nominees is not restricted, but a maximum of 3 persons will receive the award.
4. The nomination must show evidence of outstanding achievements well beyond normal job performance and that the achievements have resulted in a major positive impact on the IR-4 program.
5. The award will take the form of an engraved plaque.
6. Once a person has been given this award, they are not eligible to receive it again.

Guidelines for the Nomination and Selection of the IR-4 Regional & HQ Awardees

1. The number, nature and criteria for these awards and the choice of awardees are at the discretion of each Region (including the ARS program as a Region).
2. IR-4 HQ will provide at least $250 per Region annually to support these awards which may be used at the discretion of each Region.
3. Award nominees can be anyone the Region chooses and the number of nominees is not restricted. The award is not restricted to personnel within the region/HQ.
4. Personnel can be re-nominated but once they have received the award, they are not eligible to be nominated again for 3 years.
5. If desired by a Region, their nominations will also be ratified by the PMC. In this case the PMC's vote is deciding if the nomination is not ratified.

Calendar of Events

Training Event (open to those in need of training from all regions)
Feb 20-21, 2008
Southern Region
Raleigh, NC

Western Region State Liaison Meeting
March 19-20, 2008
Davis, CA

2008 Southern Region Meeting
August 26-28, 2008
Richmond, VA

2008 Food Use Workshop
September 16-18, 2008
Sacramento, CA
See more events at ir4.rutgers.edu

The IR-4 Project
Providing Safe and Effective Pest Management Solutions for Specialty Crop Growers

IR-4 Headquarters,
Rutgers, The State University of New Brunswick
500 College Road East
Suite 201 W
Princeton, NJ 08540

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