

Information Exchange

Beyond The Conventional Crop Tour

— by Michael Braverman, IR-4 Biopesticide Manager

On October 14, 2004, IR-4 organized a bus tour to GreenHost and Potomac Vegetable Farms in Virginia. The tour was attended by over 30 people including 20 scientists from the Environmental Protection Agency (EPA). The purpose of the tour was to give the scientists an opportunity to visit working farms and interact with growers to learn about their needs and innovative approaches to pest management. The group asked many questions and gained a perspective from two unique and enthusiastic women farmers. Both operations discussed

how marketing influenced their crop selection and overall farm management to improve profitability.

GreenHost is a greenhouse tomato operation in King George, Virginia that specializes in beefsteak and stem tomatoes. Tammy Ingersoll, Assistant Grower at GreenHost, led the group around the greenhouses and also provided an opportunity to see part of their packing operation. GreenHost utilizes several biopesticides (such as Plant Shield, Root Shield [Trichoderma spp.] and Bt), scouting and

cultural practices in an IPM approach. Severe virus problems which are vectored by whiteflies are managed by removing leaves, thereby reducing the leaf area where whiteflies feed and



Tammy Ingersoll, Assistant Grower at GreenHost Farms discussed the farm's use of biopesticides with the group as they visited the greenhouses which produces beefsteak and stem tomatoes.



multiply. Backpack blowers are used up and down each aisle to dislodge whiteflies onto a cart wrapped in sticky tape which was affectionately named 'The Titanic'. Imidacloprid is effective on whiteflies, but is toxic to bumblebees which pollinate the crop. Some predatory insects were previously used, but they are no longer commercially available, creating a need for an effective whitefly material that has a short PHI and is safe to bees.

The second stop on the tour was the Potomac Vegetable Farm in Vienna, Virginia hosted by Mrs. Hiu Newcomb. This farm is a small Community Assisted Agriculture operation that describes itself as Ecoganic.

They were previously

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The CLC to the Rescue for IR-4 Funding in FY 2005!

— by Bob Holm, IR-4 Executive Director

A year ago things were pretty glum throughout the IR-4 organization when we learned that Congress cut our FY 04 budget by 10 percent from \$10.6 million to \$9.5million in the 11th hour of House and Senate Conference discussions. This was especially painful when we were setting an

all-time clearance record of 793 new uses. The industry responded to our plight and because of their support, we did not need to cut the field program by the proposed 15 percent. However, Headquarters and the four regions still dealt with an 8 percent operating budget reduction.

While this budget cut came as a surprise to all of us, the Commodity Liaison Committee (CLC) chaired by Rocky Lundy, Executive Director of the Mint Industry Research Council, immediately sprung into action. During the February

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Ornamental Horticulture Workshop

Orlando, FL, was the site of the 2004 IR-4 Ornamental Horticulture Workshop, held November 9-12, 2004. The 3-day workshop determined which research projects the IR-4 Ornamental Horticulture Program funds in 2005.

In each session participants had an opportunity to select the most critical research priorities ("Super A") for that discipline. The Insect Management session, Chaired by HQ Study Director, Keith Dorschner, and Co-chaired by Scott Ludwig from the Ag. Res. Exp. Station at Overton, TX, selected scale and mealybug management and grub control as their priorities. The Plant Pathology session, chaired by Chuck Krause from the USDA-ARS, Wooster, OH and Co-chaired by Jim Locke from the USDA-ARS, Toledo, OH, selected *Phytophthora* diseases as the highest priority. The Weed Management session, Chaired by Joe Neal from North Carolina State University decided to expand the perennial list from last year's Super A protocol, and USDA-ARS has committed to completing the existing projects needing additional trials. The 2005 Super A protocol will be a project screen for quinoxaline phytotoxicity. In addition to these selections, other high priority items were identified.

This year the IR-4 Project Management Committee (PMC) voted to dedicate \$200,000 to the 2005 Ornamental Horticulture program, which exhibited their commitment to the program. An additional \$200,000 will be provided as a result of the approval of the increased FY 2005 IR-4 budget (see page 1).

This increased dedication comes on the heels of a very challenging year for the program. Some of the challenges included a Federal funding cut of 10.6 percent for the entire IR-4 program, which delayed the new Ornamental Horticulture initiative that included "Super A" priority research for efficacy.

Another impact on the program came with the legislation of the Pesticide Registration Improvement Act (PRIA). This act requires registrants to pay a fee for registration service at the Environmental Protection Agency (EPA). The current fee for a non-food use is \$20,000. The registration service fee for a new non-food use active ingredient is \$330,000. While there are waivers of fees for IR-4 food research, Congress did not include a similar waiver provision for non-food use submissions to EPA from IR-4. There are other types of waivers, and more information about PRIA can be found on the EPA website at

epa.gov/pesticides/fees.

Rick Keigwin, currently leading EPA's PRIA implementation efforts, discussed the impacts of the new statute on the IR-4 Ornamental Horticulture program. "The Agency has determined that many of the ornamental projects supported by IR-4 would not be subject to PRIA and, as a result, a registration service fee for these actions would not be charged. For example, in situations where the registrant is seeking to add a new non-public health/quarantine pest to the label or is seeking to add a new plant species/new plant variety to the existing ornamental label, the Agency will likely review these submissions through its notifications program — a part of the registration program not subject to PRIA."

One of the many positive aspects of PRIA is that the turnaround time from submission to decision will become more predictable.

Changes in the Program

This year, in addition to asking for and receiving dedicated funding, IR-4 sought to make improvements to the Ornamental Horticulture Program that included establishing Registrant Advisor and University Extension/ARS Advisory teams, creating guidelines for an acceptable number of trials for registrant label additions, crafting criteria for



Cristi Palmer has joined IR-4 as the new Ornamental Horticulture Manager.

establishing priorities and hiring a new Ornamental Horticulture Manager, Cristi Palmer, who began working for IR-4 in December (see page 11).

The Ornamental Horticulture advisory teams include members from seven crop protection companies, two ARS researchers and sixteen Land Grant University researchers. These members helped create the guidelines (which were distributed to all 2004 Workshop participants) for an acceptable number of trials.

"Despite the challenges and changes, the IR-4 Ornamental Horticulture Program is on the right track. With dedicated financial commitment and stakeholder support the program will grow to its potential in the coming years," stated IR-4 Executive Director, Bob Holm. "We look forward to seeing IR-4 research make significant contributions to the US Ornamental Horticulture industry." ▲

The Life of a Study: Acetamiprid/Strawberry

Part II — Protocol Changes, Field Trials and Method Development at the Laboratory


On May 26th, 2004 the first protocol change was issued for this study when two Canadian trials were added, one in Quebec and one in Nova Scotia. A second protocol change was added one week later to correct a typographical error in the protocol that could have misled the Field Research Directors (FRD). In mid-June, a third protocol change added one more Canadian field trial in Ontario.

Additional information came in from the field trials. In general, the trials were all successfully conducted, and the information consisted of the standard forms indicating that samples had been collected and shipped to the laboratory. A Standard Operating Procedure (SOP) deviation was sent from one trial, which concerned the number of significant figures to use in determining the application equipment discharge rate. This deviation had no adverse impact on the trial and was accepted by the Study Director (SD). The FRD from that same trial also asked for confirmation that a particular maintenance pesticide that was being considered for use in the plots was acceptable (it was).

Three protocol deviations were received from the field trials. In one trial, rain resulted in the second application being made nine days after the first; the protocol required an application interval of 6-8 days. The other two deviations came from a California FRD who was conducting two trials, one of which was a decline trial. (In addition to collecting samples at one day after the last application, treated samples were to be collected at three, six (± 1), and nine (± 1) days after the last application.) The field cooperators noted that the treated plot in the trial not designated as the decline trial was producing far more strawberries than the treated plot in the decline trial. In order to be able to collect an adequate number of strawberries on the four sampling dates, the FRD essentially switched the decline and non-decline trials. The above deviations were approved by the SD with no adverse impact seen on the study.

Shipment of some of the Canadian samples to the analytical laboratory was delayed. The Quebec samples were held up at the border because the border guard said additional paperwork needed to be included. The documents (which had never been needed with other samples shipped into the U.S.) were faxed to the guard, and the samples arrived at the laboratory with their frozen integrity intact. The samples from Nova Scotia were collected too late to be put on the ACDS freezer truck, which picked up samples in early summer, so they were left on site in the freezer until the next ACDS pick-up, scheduled for mid-November. At the request of the Laboratory Research Director, however, the samples were sent to the lab in October by Federal Express. These samples, and all of the others, arrived at the laboratory still frozen.

Before treated samples are analyzed for residues, the laboratory must demonstrate that the analytical method works as designed. This is accomplished by fortifying, or "spiking", control samples with known amounts of the chemical under study, and then using the method, "recovering" the chemical (the control samples come from the field trial and have not been treated with the test substance in the field). Rarely will the recoveries be exactly 100%; it is generally acceptable for the recoveries to fall within the range of 70-120%. Various problems inherent in the chemical or the crop can cause the recoveries to be higher or lower than 100%. Occasionally the SD will be asked to accept recoveries that are somewhat outside the range of 70-120%. This approval may be granted if the recoveries are fairly consistent and not distributed over a large range. The laboratory is not permitted under the protocol to analyze the treated samples for residues until after the laboratory has successfully validated the working method and has provided the SD with the recovery results, and a copy of the actual working method used.

The laboratory personnel at Michigan State University got an early start on developing the analytical method for acetamiprid on strawberries. In mid-May (2004), after they had received the first sample set from a field trial, the residue chemists went to work. Method development precedes the method validation work that is presented to the SD. The chemists make various adjustments to the reference method cited in the protocol to adapt it for analyzing the crop samples in the study. In this case, the chemists found that a newer analytical method received from the registrant was superior to the method in the protocol, so they requested that the SD amend the protocol to cite the newer method as the reference method. This was done as Protocol Change #4. The working method and method validation recoveries (all within the 70-120% range) were sent to the SD in mid-June; thus, the lab was ready to begin the analysis of samples. To be continued... 

The IR-4 Newsletter will be following a study throughout its 30-month life in order to give our audience a better understanding of all phases involved in a study. IR-4 Study Director, Ken Samoil will be working closely with the editor in providing facts and information as well as partnering in writing this series that follows the acetamiprid study on strawberries. This study was chosen because it can be tracked in all regions and ARS.

The Western Region State Liaison Meeting

State Liaison Representatives (SLR) from the Western Region met on Thursday, October 14, 2004 in Davis, CA. The annual meeting allowed the SLRs an opportunity to meet with their counterparts in other Western States and compare notes on funding and grower needs. They also discussed the 2004 Food Use Workshop (FUW) priorities for 2005 research, learned more about the Western Region web site and reported on their state's activities.

Becky Sisco, the Western Region Field Coordinator, moderated the opening session that focused on upgrades. The liaisons came up with a total of 19 possible upgrades across the

three disciplines (Weed Science, Entomology, Plant Pathology) that Becky would take with her to discuss at the National Research Planning Meeting.

Once the upgrade priorities were set, Western Region Assistant Field Coordinator, Stephen Flanagan, delivered a presentation about the Western Region Website and the Priority Setting Tool (PST) (see caption for web address). The Western Region has developed its own web site that meets the needs of researchers in that region. The representatives were interested in learning more about the web site and offered suggestions for layout improvements for certain reports. Stephen took note of their input to include in future updates.

Later that morning, Marion Miller, the Western Region Director, joined the group to discuss her role on the Project Management Committee (PMC). She gave a short presentation that explained the make-up of the PMC in more detail. Marion invited participants to talk a little bit about what they do in order for her to learn more about the different states and their needs. She also fielded questions regarding the upcoming IR-4 Strategic Planning Conference that was discussed the previous evening when the SLRs met informally for dinner. Marion encouraged the SLRs to

attend the conference, which will be held February 15 and 16 in Arlington, VA, and assured them that their input was important to the strategic planning process.

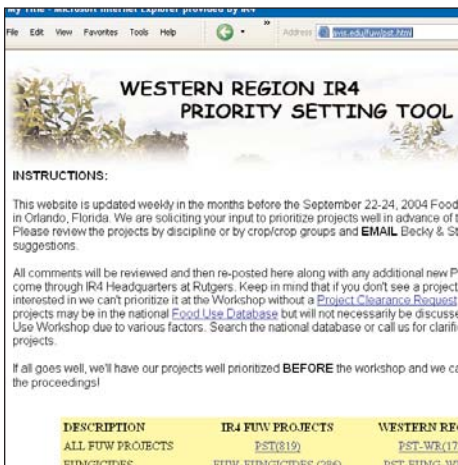
After an ample lunch on the porch of the Putah Creek Lodge, the SLRs discussed how difficult it was becoming to garner support from their universities for IR-4. They all expressed their concerns and mentioned a need to have base funding allocation to keep their GLP centers adequately staffed. SLR Doug Walsh, from Washington State University (WSU), described the lack of this funding as a "train wreck for the future". He commented, "fewer centers are providing the encouragement for junior scientists to be involved in IR-4, and the lack of academic credit and no base funding for IR-4 work makes junior-level tenure track faculty look elsewhere when looking for projects after they are hired into a university system." While no conclusion came from this discussion, just knowing they were all facing the same issue made it one worth discussing for the future.

Stephen Flanagan began the afternoon session discussing efficacy. The group talked about the importance of efficacy but felt efficacy trials should be completed at a regional level because a focus on national efficacy could easily miss a regional need. The SLRs who attended the Food Use Workshop also commented that the short

efficacy discussion at the FUW was not effective, but suggested a grants program similar to the Biopesticide Program might make better sense. Jeff Jenkins, Oregon State University Liaison, stated, "The 2005 National Efficacy Projects appear to be focused on pesticide efficacy without regard for the role of pesticides in Integrated Pest Management (IPM) strategies. To be compliant with the CSREES IPM roadmap, it seems that pesticide efficacy should be evaluated in context with the suite of tactics (chemical and non-chemical) used for pest control. Currently, crop specific Pest Management Strategic Plans (PMSPs) developed by the CSREES IPM Centers may be a useful starting point for exploring ways that the IR-4 Program can evaluate pesticide efficacy in an IPM context." The group agreed that a Western Region Efficacy workshop might be beneficial and Becky committed to looking into possibly coordinating this with or through the Western Region IPM Center.

Following this discussion, the SLRs reported on the needs in their states.

- Jay Davison (NV) reported that forage is the number one crop in Nevada. He related that they are pushing for more efficacy work. He stated that in central NV, Diamond Valley, producers are thrilled with the work IR-4 is doing and the next big crop in his state will be onions.



The Western Region IR-4 web site contains valuable information for researchers and can be found at wrrir4.ucdavis.edu/fuw/pst.html

- Mark Ferrell (WY) reported that chicory is a possible new crop opportunity in Wyoming. He also reported that the growers of pumpkin, grass seed and sod in his state are very independent and not well organized which adds to his challenges in trying to address their needs through IR-4.

- Howard Deer (UT) reported there is a heightened level of interest in supporting IR-4 projects at Utah State University (USU). He feels good about the way the program is going in UT; however he wished he had more manpower. Some of Utah's important minor crops include melons, onions, squash, apples, cherries, and peaches.

- Jeff Jenkins (OR) reported that the Minor Crops Advisory Committee to the Oregon Department of Agricultural (ODA) has been dissolved. For a number of years, using a portion of pesticide registration fees, ODA had funded minor crop projects that were not funded by IR-4. More recently, ODA provided about one-third of the funding for the Oregon IR-4 Field Research Center. Currently, no decision has been made on how these funds will be administered in the future.

- Mark Renz (NM) is just beginning the New Mexico program. He is starting to get the word out about IR-4. He said he is gathering about 6 years of herbicide data on pyriithobac on peppers. His goal is to continue to get

the word out about IR-4.

- Ronda Hirnyck (ID) reported she did a PMSP on small grains and alfalfa seed and collaborated with Joe DeFrancesco on onions. Ronda tries to maintain a certain number of studies at the Idaho IR-4 Field Research Center because they have well trained GLP researchers. She also commented that she has been looking into efficacy trials and the Idaho State Pesticide Management Commission is funding efficacy projects to support IR-4. She is also giving presentations in the winter at commodity schools. She stated that growers in Idaho are interested and have a minor crop committee. Two representatives from the committee have contacted US Senator, Larry Craig who is on the Agriculture Appropriations Committee.

- Doug Walsh (WA) reported that the mood at WSU is very upbeat. He said that agriculture in Washington is a "Tale of Two Cities" one is the hops, mint, tree fruit, and alfalfa growers who are well organized and the other is the vegetable growers, who are not well organized. He stated the tree fruit group is somewhat skeptical of IR-4 because they have not seen a lot of their registrations being generated by IR-4 work compared to industry. He went on to comment that the Washington State Commission on Pesticide Registration is supporting his efforts, and there are not a lot of new chemistries on crops in Washington. Doug talked about the 30 month IR-4 timeline in that



Western Region State Liaisons met in October to discuss the needs in their states. Pictured in the back row l-r are: Doug Walsh, Howard Deer, Jay Davison, Western Region Assistant Field Coordinator, Stephen Flanagan, and Jeff Jenkins . Pictured in the bottom row l-r are: Mark Ferrell, Bob McReynolds, Mark Renz, Ronda Hirnyck, and Western Regional Field Coordinator, Becky Sisco.

it works well but has found his projects come to a screeching halt when they are submitted to the agency and he feels that makes IR-4 lose credibility. He did concede that PRIA may help with this and continued voicing his concern that some of the commodity groups give up stating, "I'll see it in 10 years."

Becky was concerned by this and encouraged Doug that she could "birddog" a project if needed and commented that she could work on following up on projects with IR-4 Headquarters to reiterate and promote the need in various states.

The SLRs in the Western Region are very committed to their growers and the IR-4 program. Becky expressed her thanks to the them for their commitment and hard work in supporting the growers in their states. Her final task for the day was to review the SLR field assignments and invite them to meet again in October 2005. ▲

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Cooperators: Essential to IR-4 Success

— by Stephen Flanagan,
Western Region Assistant
Field Coordinator

Bob White is a second generation fruit grower from Hotchkiss, Colorado, who exemplifies the cooperation essential to IR-4's success. Hotchkiss is located in western Colorado near the Gunnison River, a tributary of the Colorado River that it joins in nearby Grand Junction. This irrigated, high altitude growing area is home to a variety of traditional fruit crops and an emerging vegetable and viticultural industry.

If you talk with Clark Oman from the IR-4 field research center in Fort Collins, Colorado, you'll quickly find out why Clark drives six hours west to conduct research in Hotchkiss. Practically conducting work in Hotchkiss, which lies in EPA field trial region IX, allows Clark to meet research requirements for studies in region IX while his home base in Ft. Collins, allows him to conduct work in region VIII. Beyond this practical consideration, cooperating with a grower such as Bob White allows Clark to conduct research on crops like tart cherries that are not available on Colorado State University research stations.

The essential character of an ideal research cooperator is just that - cooperation. "Bob anticipates our research



IR-4 thanks Cooperator Bob White from Hotchkiss, CO.

needs without our even asking," said Clark. During a cherry research trial, Clark was concerned how he would single handedly manage the crop destruct which was necessary after he finished his residue trial. On this particular day, Clark arrived in Bob White's cherry orchard to find a labor crew ready and waiting to assist Clark with the fruit harvesting.

Clark's experience with Bob's cooperation is echoed by George Osborn, a research associate at Rogers Mesa, part of Colorado State University's Western Colorado Research Center, located in Hotchkiss. "He makes it easy... he's the first grower we call," said George in reference to conducting research on Bob White's farm. Details like irrigation timing around experiments, harvesting plots, and securing experiments can be problematic if the grower doesn't carefully monitor the field plots. Having a grower who pays attention to the researcher's needs is an essential part of Bob White's role helping Colorado State and IR-4.

Bob White's involvement in agricultural research goes well beyond his direct involvement in Clark Oman's IR-4 residue trials. Bob is a regular attendee

IR-4 Recognizes its R

at the Rogers Mesa Brown Bag series. This weekly lunchtime gathering of growers and researchers is a chance for growers to interact with researchers conducting a variety of applied agricultural and natural resource research. Growers provide input to researchers about the relevance of different projects as well as keep abreast of emerging issues and technologies.

Growers like Bob White have a forward-looking attitude backed with a willingness to provide practical assistance to field researchers. In addition to providing field sites for IR4 and Colorado State, Bob is active with local water and conservation boards working to maintain and protect these resources for the future. IR-4's mandate is to provide specialty crop growers with the crop chemical tools necessary to safely produce food for all of us - the consumers. The nexus between IR-4 and the real world of specialty crop agriculture is people like Bob White who through their generosity and cooperation benefit us all. ▲

Focus on the North Carolina State University Research Center

The North Carolina State University (NCSU) IR-4 Research Center has been in operation since 1994. Since its inception the

center has conducted over 220 residue trials involving over 30 crops and more than 75 products.

Dave Monks, Vegetable Weed Science Extension Specialist, and Tom Monaco, Department Head, NCSU Horticultural Science Department, initiated the program along with Charlie Meister, the Southern Region Field Coordinator. The desire to open the center came out of the need to complete GLP work separately from performance trials. Wayne Mitchem was hired as the first Field Research Director (FRD) and earned the renowned achievement of bringing the center through its first successful EPA audit in 1998.

NCSU has graduated some notable alumni including IR-4 Associate Director, Jerry Baron, who worked under Monaco to achieve his PhD, and Jack Sheets who ran the pesticide residue lab at NCSU for years.

Roger Batts has been the FRD of the center since 2000. He conducts 25-35 trials a year in Clinton, Castle Hayne, and Sandhills, NC. In Castle Hayne, the center performs highbush blueberry trials. Peach trials are conducted in the sandy soils of Sandhills and vegetable and strawberry trials are conducted at the Clinton site. Due to certain crop requirements, work has also been completed at several other research stations.

Each whole trial plot covers about 1/10 of an acre. Field



NCSU Researchers and Andrew Mack fruit tree trial.

Researchers and Partners



As Roger Batts (l) and Andrew MacRae complete a

trials begin in March with green crops and transition into blueberries and summer vegetables through June and July. The peach trials usually span July and may last into August. If sweet potato trials are assigned, the season can stretch into early September. Since North Carolina is the number one state that produces sweet potatoes, Roger likes doing trials on them as he can relate his work directly to the growers in his state.

The NCSU Research Center takes special pride in helping gain registrations for specialty crops. Having worked in extension prior to his current position, Roger enjoys being on the 'delivery end' of agricultural research where he sees the results of his work.

Roger talked about some of the challenges he'll face in the new year. The first will be losing his "right-hand" man, Andrew MacRae, in May. Andrew will be completing his PhD and moving back to his home in Nova Scotia and hopes to find a job within the Canadian agriculture program that is similar to IR-4. Taking over some of Andrew's duties will be Researcher Katie Jennings, who will assist Roger part-time. Roger indicated that the Center may pursue a graduate student to also help with the trials.

Another challenge Roger faces every year is the amount of travel he is required to complete. Unlike many centers where plots are pretty close in proximity, Roger must travel over one and a half hours from campus to reach his plots.

Despite the wear and tear on the Center's vehicle, Roger takes on as many projects as he can to help the program. A trial that Roger described as one of his most interesting involved traveling up to the mountains of NC to dig out 20 year old ginseng roots—worth considerably more than the entire trial—for a fungicide residue trial. After a full day of Andrew, Roger and Wayne Mitchem sitting on cool, damp soil, Roger decided he would pass on future ginseng trials.

Overall, the North Carolina Research Center has been a true asset to the IR-4 program and a launching pad for many people who have dedicated their careers to IR-4 research. ▲

The IR-4 Commodity Liaison Committee

In the article on page one, the Commodity Liaison Committee (CLC) was credited for coming to the rescue of IR-4 by providing significant influence in support of federal funding for the Project. Many stakeholders understand that IR-4 is comprised of various partners but few are aware of who the partners are and what constitutes their role. The CLC is one group of partners that have significant input and influence in the IR-4 Project.

Their role is twofold; first,

to educate Congress and urge funding the federal budget at needed levels; and second, to give feedback and recommendations to the IR-4 Program. They also provide advice and consultation on operational activities and help the Project establish contacts for research assistance, plant material or other cooperative efforts. The Chair of the CLC is Rocky Lundy, Executive Director of the Mint Industry Research Council. Rocky's election as chair came through a ballot process where the CLC Executive Committee and the IR-4 Project Management Committee (PMC) proposed a slate of nominees (no more than three). The CLC general membership then received a ballot of names and selected Rocky as chair.

The chair of the CLC serves as a non-voting member of the IR-4 PMC. In 2004 the membership of the CLC was increased by seven new members to bring the total on the committee to 21. The general CLC membership is recommended to the PMC by IR-4 Regional Laboratories, IR-4 HQ, or by members of the CLC. Their membership term is four years and reappointment is made by the PMC. Since CLC members serve voluntarily, their involvement with the IR-4 program is limited by their own time constraints. The current membership includes: Dr. Michael Aerts, Florida Fruit and Vegetable Assn; Mark Arney, National Watermelon; A. Richard Bonanno, Bonanno Farm



Mint Industry Research Council and IR-4 Commodity Liaison Chair, Rocky Lundy, welcomes Washington Senator, Patty Murray to the IR-4 40th Anniversary Celebration in 2003.

Trust; Bruce Burma, Burma Farms Inc.; Hugh W. Ewart, California Citrus Quality Council; Mark J. Fields, Cranberry Institute; Brian R. Flood, Del Monte USA; Rebeckah Freeman, American Farm Bureau Federation; Ann E. George, Washington Hop Commission; Hank Giclas, Western Growers Association; Phil Korson, Cherry Marketing Institute; Rocky Lundy, Mint Industry Research Council; Eric Maurer, Valent USA Corporation; Ken Melban, California Pepper Commission; Reed Olszack, Tropical Fruit Growers of South Florida Inc.; Ray Prewett, Texas Vegetable Association; Ray Ratto, Ratto Brothers; Craig J. Regelbrugge, American Nursery & Landscape Association; Lin Schmale, Society of American Florists; Todd Scholz, USA Dry Pea & Lentil Council; and Dave Trinka, MBG Marketing, who serves on the IR-4 Newsletter Committee.

Members such as these help make the IR-4 Project successful and effective. Thank you to all the CLC members for their support and hard work. ▲

The Crop Protection Industry Steps Up for IR-4

— by Bob Holm, IR-4 Executive Director

There is a misperception among some IR-4 stakeholders that the companies representing the crop protection industry get a "free ride" from IR-4. Nothing is further from the truth. Companies have always made significant in-kind contributions to their partnership with IR-4 through appointing liaisons who review Project Clearance Requests, protocols and final petition submissions, attend the Food Use and Ornamental Workshops and participate along with other company regulatory, product development and business staff in technical review meetings with IR-4 staff. Companies also provide analytical methods and standards, and in recent years have been analyzing about 20 percent of all samples. In addition to providing liaisons, our agrichemical industry partners have also been providing grants, both restricted and unrestricted, to support IR-4 specialty crop programs.

Restricted grants target specific company products and mainly focus on support of field trials, analytical work and contract report writing. These funds come to IR-4 Headquarters (HQ) and are passed through to the regions involved with the

specific projects, with the exception of contract report writing which is managed by HQ staff. Unrestricted grants have become increasingly important in that they allow HQ management the flexibility to use the funding where it is needed the most.

This was especially critical in FY 2004 when Congress cut the overall IR-4 funding through USDA-CSREES from \$10.6 million to \$9.5 million. This resulted in nearly a \$500,000 deficit in the HQ budget. Instead of having to reduce key programs like contract petition report writing, contract processing studies, the Data Mining Program, the Methyl Bromide Alternatives Program or the Food Use and Ornamental Workshops, the HQ Senior Management Team (Jerry Baron, Dan Kunkel, Tammy White and myself) were able to utilize the unrestricted grants to fund these important programs and allow operations to continue at full efficiencies. Even with the recently announced funding increase from Congress, continued support from the crop protection industry will be critical in maintaining the high level of overall program productivity, which

exceeded 1,000 clearances in 2004 and topped the record 793 clearances achieved in 2003.

An example of the partnership IR-4 has with the crop protection industry was exhibited this fall when Syngenta Crop Protection's Head of its NAFTA Development Planning and Portfolio Management, Dirk Drost, visited IR-4 Headquarters to personally deliver an unrestricted grant. Dirk made it clear in his presentation that Syngenta felt strongly about continuing their partnership with IR-4 and his traveling from North Carolina to New Jersey symbolized this commitment to the partnership. Several years ago, Syngenta designated IR-4 as a strategic partner and they continue to

believe it is important to involve IR-4 in their specialty crop protection chemical market and development strategies. Dirk's efforts on behalf of Syngenta and his leadership of this partnership are greatly appreciated.

IR-4 also receives major unrestricted grants from other companies and wishes to thank and recognize these partners too. They include: BASF, Bayer Crop Protection, Dow Agro Sciences, DuPont Crop Protection and Valent USA Corporation.

When companies like these step up for IR-4 through their time and financial contributions, IR-4 can accomplish its mission of providing safe and effective pest management solutions for specialty crop growers. The perception of companies getting a "free ride" should be changed to understanding that without these partnerships, and their commitment, IR-4 could be running on empty. ▲



IR-4 Executive Director, Bob Holm and Syngenta Crop Protection's Head of its NAFTA Development Planning and Portfolio Management, Dirk Drost, visit a Rutgers University Greenhouse during his visit to present IR-4 with a substantial unrestricted grant.

Michael Chen Publishes Nematology Books



Zhongxiao (Michael) Chen Ph.D., IR-4 Regional Quality Assurance Coordinator, at Michigan State University recently published two books in nematology. The following is the description of Michael's work.

The books are titled: **Nematology: Advances and Perspectives** **Vol I. Nematode Morphology, Physiology and Ecology. Published in June 2004** ,and **Vol II. Nematode Management and Utilization.**

Nematodes are the most abundant and diversified

group in the animal kingdom, with four out of five animals on Earth being nematodes. Nematology was first recognized as an independent discipline during the early part of the 20th century and since that time has made unparalleled advances to become an integral part of biological sciences.

Written as two volumes, this title provides a broad overview of our current knowledge of nematology. This first volume addresses basic biology, while the second covers applied aspects of nematodes as parasites of plants, humans

and other animals, or as disease vectors, and the control of pest nematodes. The contributors to this work include the world's leading authorities from Australia, Brazil, Canada, China, France, New Zealand, UK and USA. It will provide essential reading for researchers and students with an interest in nematology.

The Editors include: **Zhongxiao Chen**, National Food Safety and Toxicology Center, Michigan State University, East Lansing, Michigan, **Senyu Chen**, Southern Research and

Outreach Center, University of Minnesota, Waseca, Minnesota **Donald W. Dickson**, Entomology and Nematology Department, University of Florida, Gainesville, Florida.

Congratulations Michael! ▲

If you have some interesting information you'd like to announce or have covered in the IR-4 Newsletter, contact your regional Newsletter Committee Member or Sherrilynn Novack at 732.932.9575 x 632 or send her an email at novack@aesop.rutgers.edu.

Crop Tour continued from page 1

certified as organic, but regulations involving tracking of produce from specific fields became too cumbersome. However, they still utilize the same organic techniques and produce tomatoes, a variety of greens and other vegetables, flowers, small fruits and herbs in small plots. Under their Community Supported Agriculture program, they sell shares in the produce which allows members to receive fresh vegetables weekly. Some produce was also grown on another farm in Loudon county Virginia and marketed in several green markets around Washington D.C. Some of the pest control techniques discussed were the use of

parasitic wasps to manage bean beetles and pheromones for Japanese beetles in blackberry. They also use floating row covers to provide a physical barrier to insects. The most challenging problem was weed control which was completed by a combination of mulching, mowing, cultivating and hand weeding. A more



Mrs. Hiu Newcomb invited tour goes to investigate her "Ecoganic" farm in Vienna, Virginia.

housing development which helps to retain ownership of the property for future generations.

recent problem has been Harlequin bug. Bt's are sometimes used for managing larvae on many crops. In addition to the farming operation, the tour visited a unique co-shared

The EPA scientists were grateful for the opportunity to learn from these growers and IR-4 extends their appreciation to Hiu Newcomb and Tammy Ingersoll who shared their time and experience. ▲



The IR-4 Biopesticide Tour allowed representatives from the EPA an opportunity to witness organic farming and better understand the needs of these growers.

Clearances

September

2004 -

November 2004

Product: Dimethenamid(H) **Trade Name:** Outlook

Crops: Vegetable, tuberous and corm, subgroup 1C; Sugar beet, Garden beet, Horseradish, Onion (dry bulb), Garlic, Shallot (dry bulb)

Federal Register: September 4, 2004

PR #: 7702, 6662, 7942, 6337

Product: Tebufenozide(I) **Trade Name:** Confirm

Crops: Vegetable, tuberous and corm, except potato, subgroup 1D; Fruit citrus, group 10; Citrus oil; grape; Inadvertant residues on Vegetable, foliage of legume, group 7; Grain, cereal, forage, fodder and straw, group 16; Grass, forage, fodder, and hay, group 17

Federal Register: September 24, 2004 **PR #:** 6512, 6763

Product: Carfentrazone-ethyl(H) **Trade Name:** Aim

Crops: Vegetable, root and tuber, group 1; Horseradish; Vegetable, leaves of root and tuber, group 2; Vegetable, leafy, except brassica, group 4; Vegetable, brassica, leafy, group 5; Vegetable, legume, group 6; Vegetable, foliage of

legume, except soybean, group 7; Vegetable, fruiting, group 8; Vegetable, cucurbit, group 9; Fruit, citrus, group 10; Fruit, pome, group 11; Fruit, stone, group 12; Berry, group 13; Strawberry; Grape, Nut, tree, group 14; Almond, hull; Pistachio; Grass, forage; Grass, hay; Sorghum, sweet; Herb and spice group 19; Canola; Hop, dried cones; Peanut and Peanut, hay; Sugarcane; Sunflower, seed; Stevia; Coconut; Strawberrypear; Date; Fig; Papaya; Avocado; Sapote, black; Canistel; Sapote, mamey; Mango; Sapodilla; Star apple; Pummelo; Guava; Feijoa; Jaboticaba; Wax jambu; Starfruit; Passionfruit; Acerola; Lychee; Longan; Spanish lime; Rambutan; Pulasan; Sugar apple; Atemoya; Custard apple; Cherimoya; Illama; Soursop, Biribe; Lingonberry; Juneberry; Salal; Kiwifruit; Pomegranate; Persimmon; Pawpaw; Palm heart and Palm heart, leaves; Kava kava; Ti, leaves and ti roots; Wasabi, roots; Cactus; Rapeseed, seed and Rapeseed, forage; Mustard, seed; Flax, seed; Safflower, seed; Crambe, seed; Borage; Olive; Banana; Cacao; Tea; Mulberry, Indian; Vanilla; Coffee

Federal Register: September 24, 2004

PR#: 8630, 8631, 8519, 8520, 8517, 8529, 8648, 7445, 8649, 8650, 8651, 7163, 8518, 8559, 8805, 7959, 7960, 7961, 8423, 8510, 8511, 8512, 8475, 7972, 8906, 8319, 8530, 8531, 8562, 7596, 8632, 8478, 8477, 8476, 8474, 8472, 8473

Product: Fludioxonil(F)

Trade Name: Switch/Scholar/Graduate on citrus

Crops: Yam, true; Leafy greens subgroup 4A (except spinach); Bean dry; Bean succulent; Melon subgroup 9A; Fruit, citrus, group 10; Grapefruit, oil; Fruit, pome, group 11; Kiwifruit

Federal Register: September 29, 2004

PR #: 8107, 7618, 7619, 7947, 7568, 7569, 7639

Product: Cyprodinil(F) **Trade Name:** Switch/Vanguard

Crops: Almond hulls; Dry Bean; Succulent Bean; Leafy greens subgroup 4A except spinach

Federal Register: October 20, 2004 **PR#:** 8481, 7782, 7614, 7783, 7131

Product: Pyraclostrobin(F) **Trade Name:** Cabrio/Headline

Crops: Vegetable, leaves of root and tuber, except sugar beet, group 2; Vegetable, leafy, except brassica, group 4; Brassica, head and stem, subgroup 5A; brassica, leafy greens, subgroup 5B; Field corn (grain, forage, stover, refined oil); Popcorn (grain, stover); Sweet corn (kernel plus cob with husks removed, forage, stover; Fruit, pome, group 11; Hop; dried cones; Legume, forage, except peanut and soybean; Vegetable, legume, edible podded, subgroup 6A; Succulent pea; Pea and bean, dried shelled, except soybean, subgroup 1C; Soybean (forage, hay, hulls seed) Apple wet pomace; Peppermint; Spearmint; Sunflower. Increased tolerances Fruit citrus, group 10; Citrus (dried pulp, oil); Strawberry.

Federal Register: October 29, 2004 **PR #:** 7594, 7640, 7493, 7494 ▲

Calendar of Events



Feb 5, 2005 8am-5pm, Little Rock, AR: PHYTOPHTHORA CAPSICI WORKSHOP
contact Dave Thompson
dthompson@aesop.rutgers.edu

Feb. 15-17 2005 Strategic Planning Conference:
Double Tree Hotel, Arlington, VA Contact: Cheryl Ferrazoli 732.932.9575 x 601. See www.ir4.rutgers.edu for agenda and more information.

Mar. 7-9, 2005, West. Reg. Residue Trial Training: Davis, CA, Contact Becky Sisco rsisco@ucdavis.edu, 530-752-7634

Aug. 22-24, 2005 Southern Region Regional Meeting:
South Padre Island, TX contact Robin Adkins
352-392-1978 x 400

Sept. 13-15, 2005 IR-4 Food Use Workshop: Marriott, San Diego, CA Contact Cheryl Ferrazoli
732.932.9575 x 601

2004 Retirees and New Hires

Retiring in 2004

ARS

Thomas L. Treat, IR-4 Field Research Director at the Yakima Agricultural Research Laboratory, retired on November 30, 2004. Tom began his IR-4 career in 1979 and was awarded the 1994 IR-4 Outstanding Technical Service Award.

Headquarters

Elizabeth (Betty) Lovuolo who retired on December 31, 2004, worked at Headquarters for six years as a Business Specialist. She managed travel reimbursements and operational expenses. Betty and her husband, Bob, are avid travelers and have planned a cruise to South America in January.

Northeast Region

William G. Lord retired from the University of New Hampshire this summer. Bill has been an active supporter of IR-4 since the 80's, serving as IR-4 State Liaison Representative for New Hampshire for several years, and completing 24 magnitude of residue studies as a Field Research Director. We will miss his expertise and humor.

Bradley J. Rauch served as the principle technician for IR-4 GLP studies at the New York IR-4 Center, under Robin Bellinder. He left Robin's weed science project to work on a Cornell dairy project this summer.

North Central Region

Jeff Wyman, who served as the IR-4 State Liaison from Wisconsin, retired this year after 20 years of service. Jeff worked in the Department of Entomology at the University of Wisconsin and was the Field Research Director of the Wisconsin Field Research Center.

Southern Region

Rodney Holloway retired in October after serving for several years as the State Liaison for Texas.

Bill Nesmith is retiring after serving as State Liaison for Kentucky for 6 years. In 2004 Dr. Nesmith received the IR-4 Southern Region Meritorious award.

Newly Hired in 2004

ARS

Somsong (Song) Jarman has been hired as a chemist for the Yakima Agricultural Research Laboratory in Wapato, WA. She earned a BS in Chemistry from Central Washington University.

Anh N. Le has joined the USDA's IR-4 Residue Testing Laboratory in Beltsville, MD. Anh has earned a BS in Chemistry from the University of Maryland.

David (Dave) L. Roys has been appointed IR-4 Field Research Director at the Yakima Agricultural Research Laboratory in

Wapato, WA. Dave earned his BS in Horticulture from Montana State University.

Headquarters

Ornamental Horticulture Manager, **Cristi Palmer** joins IR-4 from FMC Corporation where she held duties such as Technology Development Coordinator, Turf & Ornamental Segment Manager, and Technical Service Representative. Prior to FMC, Cristi was Technical/Regulatory Coordinator at Cleary Chemical. Her PhD and BS degrees were earned at Cornell University, Ithaca, NY, with the Major of Floriculture and Ornamental Horticulture. She also holds a Master of Agriculture degree from University of Florida, Gainesville, FL, where her major was Plant Pathology.

Cristi can be reached at 732.932.9575 x 629 or at palmer@aesop.rutgers.edu

Northeast Region

Craig Kalke took over the principle technician responsibilities for the New York IR-4 Center, under Robin Bellinder, when Brad Rauch left. He was assisted in these duties by Matt Miller. This is a temporary arrangement, and we thank both of them for stepping up to the plate. A new technician will be taking on the responsibilities next spring.

Ann Hazzelrigg joined IR-4 as the State Liaison for Vermont. Ann is the director of the UVT Plant Diagnostic Clinic, Pesticide Education and Safety Program, Pest Resources Online Network of New England, and School IPM program.

Charles E. Beste joined IR-4 as the State Liaison for Maryland. Ed is no stranger to IR-4, as he conducted magnitude of residue studies until those duties were absorbed into the IR-4 Center at Salisbury. He has been actively involved with the Ornamental Horticulture Program, conducting studies in support of registrations.

Southern Region

Angela Thompson has been appointed Field Research Director of the Tennessee Research Centers located in Jackson and Crossville, TN. Angela has also been appointed as State Liaison for the State of Tennessee. Angela earned a B.S. degree in Agriculture at Murray State University in Murray, KY; she earned a M.S. degree in Agronomy at University of Kentucky in Lexington, KY; and she earned her Ph.D. in Plant and Soil Science at the University of Tennessee in Knoxville, TN.

Mark Matocha has been appointed as the Texas State Liaison. Mark received his B.S., M.S., and Ph.D. degrees in Agronomy from Texas A&M University.

Ricardo Bessin has been appointed as State Liaison for the State of Kentucky. Ric earned his B.S. in Agri. Pest Management from the University of California, Berkeley; he received his M.Ap. Stat. in Experimental Statistics and his Ph.D. in Entomology from Louisiana State University. ▲

FY 2005 Budget continued from page 1

2004 joint PMC and CLC Meeting in Washington, DC, the CLC members used the opportunity to contact key legislators and their agricultural staff legislative assistants to

FYI... An article entitled, **Less is More: Research Partnership Produces Safer Pest Control Chemicals** written by Rod Santa Ana and featuring the Texas A&M Agricultural Research & Extension Center has appeared in the Texas A&M magazine *Lifescapes*. Copies can be obtained by calling the Editor Helen White, at 979.845.2211 or visiting their web site at <http://agcomwww.tamu.edu/lifescapes>.

support an increase. This led to a proposal by the House Agricultural Appropriations Committee to increase IR-4 funding in FY 05 to \$11.235 million while the Senate counterparts proposed an IR-4 funding level of \$10.555 million. In past years, the two legislative bodies would split the difference but not this year. Thanks to an intensive personal contact and letter writing campaign, which included some non-CLC contacts such as the California Cut Flowers Commission and W. M. Wrigley Jr. Company, the House version was passed. The results of this increase will allow IR-4 to conduct a full 2005 field residue program including all B+ priorities, as well as fully fund

(\$400,000) the Ornamental Horticulture Program. In addition, IR-4 will be able to expand the Biopesticide Program that will leverage matching funds from EPA's BPPD for the Biopesticide Demonstration Program. And finally, IR-4 will be able to fund some needed capital improvements in the regions for lab and field research centers.

This is great news and a validation that Congress will fund programs which are productive and are needed by key stakeholder groups. Receiving an 18 percent budget increase when overall government programs were held to a 2 percent increase in FY 2005 shows that the CLC accomplished their mission. ▲

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