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Minor Crop Pest Management, IR-4 - A National Agricultural Program to Clear Pest Control Agents for Minor Uses

IR-4 Newsletter

IR-4 Project
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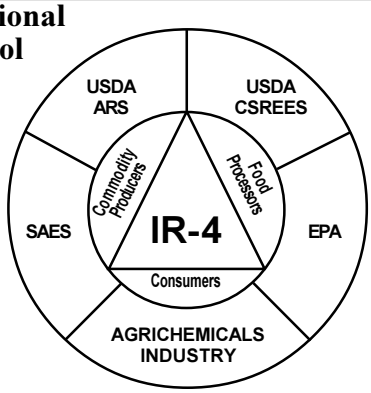

IN THIS ISSUE

*For July - September 1999 (3rd Quarter)

IR-4 Highlights (Partner Outreach)

Editor's Note: IR-4 Highlights by the Executive Director is an outreach feature of the Newsletter, focused primarily on articles in this issue.

This summer has been an extremely busy and active one for the Headquarters staff. One of the best ways to know our ultimate customers' (growers, farmers, etc.) needs is to go out and talk with them. We have had one or more representatives attending the following tours: Washington Pest control Tour (7/20 to 7/22), Puerto Rico Agricultural Tour (7/30), Beyond the Big Apple II Tour (8/11 and 12) and Northwest Minor Crop Field Symposium (8/17-8/19). These tours offered great opportunities to hear directly from farmers who are battling difficult economic times, drought in some areas, water utilization concerns and potential loss of crop protection chemicals due to possible FQPA regulatory actions. Many of the growers were aware directly or indirectly of the IR-4 program and our focus on registering newer, reduced risk chemistries and biopesticides, but were still concerned that adequate time be allowed to evaluate them after registration before restrictive actions were taken against their current tool box of products which for some minor/minor crops may be only a few at best.

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IR-4 Highlights (Partner Outreach)

Continued from Page 1

Starting my second year on the IR-4 Team is allowing an exposure to the annual program cycle for another time. Such was my experience with the recent Food Use Workshop held in Denver, CO from August 25th to 27th. It was a great opportunity to interact with all of our partners (crop protection industry including strong biopesticide company representation, the EPA, our Commodity Liaison Committee, growers, the land grant university research and extension staff, our Canadian partners, guests from Mexico, etc.) with nearly 150 in attendance. Each session (Plant Pathology, Entomology and Weed Science/PGR's) had between 75 and 100 participants who helped the initial prioritization process. Our industry partners made excellent contributions by starting off each session with key product updates including registration status, company plans and crops for IR-4 projects. Many thanks to all the Headquarters staff who made the meeting such a success by selecting the site, coordinating the registrations, setting the agendas, moderating the sessions and facilitating product and crop specific discussions. The prioritization process resulted in 64 'A' priority and 150 'B' priority projects. IR-4 has committed in previous years to complete all 'A' priority projects and initiate as many of the 'B' priority projects as our budget and staff restraints allow. In recent years, this has accounted for about 150 projects per year meaning that we should be able to consider about 86 'B' projects or 57% of the 'B' total in addition to the 64 'A' projects unless additional budget support comes from Congress for FY 2000. We should know the status of our Congressional funding in advance of our National Research Planning Meeting scheduled for October 26th and 27th at the Headquarters offices to make the final project selections for next year. For more detail, refer to the Workshop article on page 13.

Our next general partnership meeting opportunity was at our Annual Meeting held in Washington, D.C. from October 4th through the 7th. By the time this Newsletter reaches you, we will have held our Symposium on Future Approaches to Minor Crop Pest Management scheduled for October 5th (PM) and October 6th. The purpose of the Symposium was to bring together our national IR-4 personnel (State Liaison Representatives, Regional Teams, ARS and Headquarters) along with invited guests from the EPA, crop protection industry, USDA, public interest groups, the greater land grant university system, food processors, policy makers, etc. to help us determine our future strategies and priorities. The program was divided into three topic areas (Speeding the Flow of New Technologies to Minor Crop Growers, The Role of IR-4 in Making Biopesticides and Transgenic Varieties Available for Minor Crops and The Future Relationship Between IR-4 and the Other USDA IPM/Pesticide Programs) with each session starting off with invited keynote speakers. Following the formal presentations, the attendees were divided into discussion groups to address key questions related to the topic. Input from each discussion group was made to the general attendees with final recommendations for consideration by IR-4 to update our Strategic Plan for the next five years. This meeting will be followed by a Project Management Committee Strategic Planning Retreat to be held in Portland Oregon on October 19th in conjunction with the Ornamentals Workshop. The goal is to discuss the recommendations resulting from the Symposium discussion groups and incorporate them into an updated strategic plan for the first five years of the next century. The Symposium was a great opportunity to get a reading on our new proactive approaches and how we can improve them to be more effective and efficient in providing the best crop protection solutions and technologies available to our minor crop growers to help them cope with the increasingly complex set of challenges they face as they try to stay in business and remain competitive on a global basis.

Our international partnerships continue to grow and flourish. Our Canadian colleagues represented by Doug Rothwell continue to participate actively in our programs and are cooperating on nine residue projects in 1999. Wendy Sexsmith, also from Health Canada/Pest Management Regulatory Agency, is Director of Alternative Strategies and Regulatory Affairs and has taken a leadership role with Janet Andersen, Director of the Biopesticides and Pollution Prevention Division, U.S. EPA, to establish a process for joint review of pest control products in which the new active ingredients are microbial or arthropod semiochemicals (including pheromones). We are working with Wendy and Janet to set up a meeting to include IR-4 to determine how we can effectively participate in this important NAFTA initiative. In addition, as a result of my presentation in a symposium entitled "Harmonization of Pesticide Registration" as part of the joint American/Canadian Phytopathological Society Meeting, I have been invited to discuss IR-4 programs and possible cooperative initiatives with the European Union (EU) at the Fourth Mediterranean Conference in Greece on October 14th and 15th sponsored by the European Crop Protection Association. Our strategy in working with the EU is similar to working with our Canadian partners, that is, to share residue information on active ingredients and minor crops grown under similar climatic conditions to develop a residue database for North American and European regulatory decisions and aid harmonization of tolerances. Based on our progress with Canada, the European cooperation initiative looks hopeful. More about that trip in the Winter Newsletter.

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IR-4 Highlights (Partner Outreach)

Continued from Page 2

From a personnel viewpoint, we welcome Dr. Van Starner to our Headquarters Team as a Study Director. Van comes to us with a wealth of crop protection industry experience at Merck and Novartis as noted in the article on page 19. While we are recognizing people, the Headquarters staff would like to extend our sincere congratulations to Jim Jones, EPA Registration Division Director, as being selected as only one of two Senior Executive Service Managers in the EPA. The award recognizes model managers who demonstrate leadership skills and vision to create and sustain effective, high performing organizations. Jim certainly fits that role in his 11 years of EPA service and had previously received the Lee M. Thomas Excellence in Management Award. It certainly is easy to see why our partnership with the Agency has developed so quickly this past year when we have fine managers like Jim to work with. Read more about our EPA Partnership in the article by Ken Samoil on page 18.

In summary, this may have been a long, hot, dry summer in many parts of the country, but at IR-4 Headquarters we feel the momentum for our programs and initiatives continues. We face the next decade, century and millennium with a lot of optimism!

Article by Bob Holm

IR-4 Headquarters - Presentations

Bob Holm - "New Perspectives for the Future of the IR-4 Program" presented to Western Region Experiment Station Directors Meeting on 7/12, Abbott Laboratories on 7/21, Cornell University, Ithaca on 7/22, Northeast Region IR-4 Team and Geneva Campus/Cornell University on 7/23, Joint American/Canadian Phytopathological Society Meeting on 8/10, USDA Programs on Pest Management Meeting on 8/30 and the EPA Special Review and Reregistration Division on 9/13.

CONGRATULATIONS AND NEWS

- Dr. A.W. Johnson, Research Leader for Nematodes, Weeds and Crops Unit at the USDA-ARS Tifton, GA site plans to retire 1 JAN 2000. Bill is the Field Research Director for IR-4 trials at Tifton. He is an outstanding researcher and leader, and will be surely missed.
- See the "New IR-4 Web Site"http://www.cook.rutgers.edu/~ir4. The electronic Newsletter has arrived.

Regional News

New Director for the Northeast Region - Welcome Aboard!

Dr. David M. Soderlund has been appointed as the Director of the Northeast Region of the IR-4 Program. Dr. Soderlund replaces Dr. Richard A. Durst, who has moved to a new position as Chair of the Department of Food Science and Technology, Geneva, and Associate Director of the Cornell Institute of Food Science. We thank Dr. Durst for his time and efforts on behalf of the IR-4 Project and wish him well in his new endeavors.

Dr. Soderlund is Professor of Insecticide Toxicology in the Department of Entomology at the New York State Agricultural Experiment Station in Geneva, New York, a branch campus of the College of Agriculture and Life Sciences of Cornell University. Dr. Soderlund's research program focuses on the molecular neuropharmacology of insecticide action and the elucidation of molecular mechanisms of insecticide resistance. He is widely recognized as an authority on the toxicology and mode of action of pyrethroid insecticides.

In addition to his research activities, Dr. Soderlund has served for more than 20 years as a consultant to agrochemical firms in the areas of insect biochemistry, insecticide toxicology, and insecticide discovery research strategies.

Prior to joining the Cornell University faculty in 1978, Dr. Soderlund was a postdoctoral fellow in the Insecticides and Fungicides Department at Rothamsted Experimental Station, Harpenden, England. Dr. Soderlund received a B.S. degree in Biology from Pacific Lutheran University in Tacoma, Washington in 1971 and a Ph.D. degree in Entomology from the University of California, Berkeley, in 1976.

Editor

Minor Crop Pest Management, Interregional Research Project No. 4 (IR-4)
National Agricultural Program
To Clear Pest Control Agents for Minor Uses

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IR-4 Regional/Headquarters and other National/International Contacts - Directories

To provide appropriate public accessibility to IR-4 State and Federal (USDA-ARS) Liaison Representatives, Regional Project Management Committee Representatives, Regional Field Coordinators, Regional Laboratory Coordinators, Regional QA Coordinators, Headquarters, etc., we are including updated listings as attachments to this Newsletter. Telephone numbers, FAX numbers, and E-mail addresses are indicated for all contacts.

CALENDAR

October 1999

4-5 IR-4 Project Management Committee Fall Meeting, Washington, DC

5-6 IR-4 Symposium "Future for Minor Crop Pest Management", Washington, DC

7 IR-4 36th Annual Meeting, Washington, DC

18-21 USDA/IR-4 Ornamentals Use Workshop, Portland, Oregon

20-21 IR-4 USDA-ARS Liaison Meeting, Portland, Oregon

26-27 IR-4 National Research Planning Meeting IR-4 Headquarters, Rutgers University, North Brunswick, New Jersey

January, 2000

9-11 American Farm Bureau Meeting, Houston, Texas

February, 2000

22-23 Spring Project Management Committee Meeting, Washington, DC

Regional News

Northeast Region Field Research Coordinator Report

Sandy Perry, IR-4 outreach specialist, and Dr. Bob Holm visited the region the third week in July. We were able to visit the field sites of two Cornell cooperators, Dr. Robin Bellinder and Dr. Wayne Wilcox. We also took tours of the analytical labs, farm and food processing pilot plant of the New York State Agricultural Experiment Station, Geneva. Dr. Holm presented his update on IR-4 in both Ithaca and Geneva. I would like to thank all the people on both campuses who worked so hard to make the visit a success.

Despite an incredibly hot, dry summer for the northeast, the research plots survived, and are now being harvested. In general, harvests are about two weeks ahead of normal which has caused a bit of scrambling to insure that in-life audits were completed and all support was in place.

The EPA audited the Pennsylvania State University field site in September. There were no findings. This was the second audit for this research site, and indicates that the IR-4 implementation of GLPs is working.

Article by Edith Lurvey

- "Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture."
- "This material is based upon work supported by the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, under Hatch Act and Agreement No. 98-34383-5993."
- This Newsletter does not constitute a recommendation for use. The pesticide registrant or Cooperative Extension should be consulted for specific use information.
- IR-4 thanks the many research cooperators who have provided data to support the needed registrations.
- Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift.
- Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label clearances.

The IR-4 Newsletter

The IR-4 NEWSLETTER is published quarterly for distribution to cooperators in our partner State/Federal/Industry research units, State and Federal officials, private interest groups, and private citizens. Scientists at the IR-4 National Headquarters, regional, state, and federal level, and on the IR-4 Project Management Committee contribute articles in their areas of expertise. The Newsletter design and layout are done by Cheryl Ferrazoli. This partnership publication is printed and distributed by the Cooperative State Research, Education, and Extension Service, United States Department of Agriculture, Washington, D.C. Material from the IR-4 Newsletter may be reproduced with credit to the publication. Major funding for IR-4 is provided by USDA-CSREES and USDA-ARS in cooperation with the State Agricultural Experiment Stations.

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Sincerely,

George M. Markle, Editor
Associate Director
Newsletter Team
IR-4 Project

cc: Rutgers University Library of Science and Medicine
ATTENTION: University Archivist/Gov't Doc. Dept.

Food-Use Program Clearance Successes, 3rd Quarter, 1999

Pesticide*	Trade Name	Site	*Federal Register*	PR. NO.	Cooperators/Comments
Fosetyl-Al (F)	ALIETTE®	Grapes (East of Rocky Mountains)	8 JUL 99 (Rule)	3962	Authored by W. Biehn. Support provided by S. Miyazaki and D. Ramsdell, Michigan State University; and J. Martini and R. Pearson, Cornell University. Toxicology, methodology and residue analysis provided by Rhone Poulenc.
Fosetyl-Al (F)	ALIETTE®	Macadamia	8 JUL 99 (Rule)	3187	Authored by D. Thompson. Support provided by R. Melnicoe, University of California; M. Kawate, University of Hawaii, and Mauna Loa Macadamia Nut Corp., Hilo, HI. Toxicology and methodology data provided by Rhone Poulenc.
Fosetyl-Al (F)	ALIETTE®	Blueberry	8 JUL 99 (Rule)	4937	Authored by W. Biehn. Support provided by S. Miyazaki and D. Ramsdell, Michigan State University; R. Melnicoe, University of California; J. DeFrancesco, Oregon State University; J. Martini, Cornell University; A. Stretch, Rutgers University; D. Yarborough, University of Maine; C. Meister, University of Florida; W. Cline, North Carolina State University; D. Trinka, Michigan Blueberry Growers Association; and M. Kawate, University of Hawaii Analytical Laboratory. Toxicology and methodology data provided by Rhone Poulenc.
Imazamox (H)	RAPTOR®	Dry Bean	14 JUL 99 [Time-Limited Tolerance (TLT) under Section 18]	6820	Study Director is F. Salzman. Support provided by E. Lurvey and R. Bellinder, Cornell University; S. Miyazaki, Michigan State University; R. Wilson, University of Nebraska; R. Zollinger, North Dakota State University; S. Miller, University of Wyoming; M. Santonie, Billings, MT; J. Stinehagan, Bridger, MT; R. Sweeney, ABC Laboratories; and USDA-ARS scientists L. Birch (WA), C. Tappan (OH), and P. Schwartz (MD). Toxicology and methodology data provided by American Cyanamid.
Spinosad (I)	SPINTOR® SUCCESS®	Cranberry	21 JUL 99 (Rule) (TLT under Section 18)	6823	Study Director is K. Dorschner. Support provided by E. Lurvey, Cornell University; L. Rossell, Rutgers University; A. Averill, University of Massachusetts; S. Miyazaki, Michigan State University; J. Wyman, University of Wisconsin; R. Hampton, University of California; J. DeFrancesco, Oregon State University; J. Fleeker, North Dakota State University; V. Brookes, Ag. & Agri-Foods Canada; D. Rothwell, Pest Management Regulatory Agency, Ontario, Canada; and G. Deziel, Cranberry Institute, Wareham, MA. Toxicology and methodology data provided by Dow AgroSciences.

Food-Use Program Clearance Successes, 3rd Quarter, 1999

Pesticide*	Trade Name	Site	*Federal Register*	PR. NO.	Cooperators/Comments
Spinosad (I)	SPINTOR® SUCCESS®	All commodities (Medfly) in connection with quarantine eradication programs	21 JUL 99 (Rule) (TLT under Section 18)	7356	Support provided by IR-4 residue data on fruiting vegetables and other crops for which K. Dorschner is Study Director. Toxicology and methodology data provided by Dow AgroSciences.
Imidacloprid (I)	ADMIRE® PROVADO®	Blueberry	21 JUL 99 (Rule) (TLT under Section 18)	6122	Study Director is K. Dorschner. Support provided by E. Lurvey, Cornell University; L. Rossell and S. Polavarapu, Rutgers University; J. Whalen, University of Delaware; B. Goulart, Pennsylvania State University; R. Hampton and C. Mourer, University of California; J. DeFrancesco, Oregon State University; C. Meister, University of Florida; C. Gorsuch, Clemson University; W. Mitchem, North Carolina State University; J. Wise and S. Miyazaki, Michigan State University; and USDA-ARS scientists K. Morford (WA) and P. Schwartz (MD). Toxicology and methodology data provided by Bayer.
Imidacloprid (I)	ADMIRE® PROVADO®	Cranberry	21 JUL 99 (Rule) (TLT under Section 18)	5745	Study Director is K. Dorschner. Support provided by E. Lurvey, Cornell University; L. Rossell, Rutgers University; A. Averill, University of Massachusetts; S. Miyazaki, Michigan State University; J. Wyman, University of Wisconsin; R. Hampton and C. Mourer, University of California; J. DeFrancesco, Oregon State University; and L. Dapsis, Ocean Spray Cranberries, Inc. Toxicology and methodology data provided by Bayer.
Zinc Phosphide (R)	Zinc Phosphide Pellets	Alfalfa (forage hay) Timothy (seed, forage, hay)	28 JUL 99 (Rule) (TLT Extension under Section 18)	6632 6055	Study Director is K. Samoil. Support provided by R. Melnicoe, University of California; W. Meeks, G. Carpenter and G. Moller, University of Idaho; and A. Schreiber, Washington State University. Toxicology and methodology data provided by HACCO Inc.
Abamectin (I)	AGRI-MEK®	Hop (Dried)	29 JUL 99 (Notice) 7 SEP 99 (Rule)	6334	Authored by G. Markle. Support provided by R. Melnicoe, University of California; W. Cone, Washington State University; G. Carpenter, University of Idaho; J. Jenkins, Oregon State University; and A. George, Washington Hop Commission. Toxicology, residue and methodology data provided by Novartis.
Propiconazole (F)	ORBIT®	Cranberry	30 JUL 99 (Rule) (TLT Extension under Section 18)	6320	Authored by D. Thompson. Support provided by S. Miyazaki, Michigan State University; J. Wyman, University of Wisconsin; J. Koenig, Novartis; C. Richards, ABC Labs; and J. LaFleur, The Cranberry Institute. Toxicology and methodology data provided by Novartis.

Food-Use Program Clearance Successes, 3rd Quarter, 1999

Pesticide*	Trade Name	Site	*Federal Register*	PR. NO.	Cooperators/Comments
Imidacloprid (I)	ADMIRE®	Cucurbits (Crop Group 9, Cucumbers, Melon and Squash)	2 AUG 99 (Rule)	5179 5180 5181 A5179 A5180 A5181 5254 6500	Authored by K. Dorschner. Support provided by R. Melnicoe and J. Bailey, University of California; C. Meister and F. Johnson, University of Florida; J. Martini, Cornell University; G. Ghidiu, Rutgers University; S. Miyazaki, Michigan State University; J. Wyman, University of Wisconsin; D. Winkler, EN-CAS Analytical Labs; F. Rice, ABC Labs; and USDA-ARS scientists R. Coleman (TX), B. Davis (SC), and P. Schwartz (MD). Toxicology and methodology data provided by Bayer.
Imidacloprid (I)	ADMIRE®	Tuberous and Corm Vegetables (Crop Sub-group 1C) Dasheen (Taro) Leaves	2 AUG 99 (Rule)	6605 6898 6720	Authored by K. Dorschner. Support provided by R. Melnicoe, University of California; M. Kawate, University of Hawaii, C. Meister and J. Pena, University of Florida; and K. Sorensen, North Carolina State University. Toxicology and methodology data provided by Bayer.
Imidacloprid (I)	ADMIRE®	Upland Watercress	2 AUG 99 (Rule)	6723	Authored by K. Dorschner. Support provided by R. Melnicoe, University of California and M. Kawate, University of Hawaii. Toxicology and methodology data provided by Bayer.
Glufosinate (H)	Liberty Link® Sweet Corn	Sweet Corn	18 AUG 99 (Rule) (TLT under Section 18)	6515	Study Director is D. Kunkel. Support provided by S. Miyazaki and B. Zandstra, Michigan State University; R.G. Harvey, University of Wisconsin; S. Mangini, Del Monte Research Center, Walnut Creek, CA; and USDA-ARS scientists C. Tappan (OH) and P. Schwartz (MD). Toxicology and methodology data provided by AgrEvo.
Pyridate (H)	TOUGH®	Mint	25 AUG 99 (Rule) (TLT under Section 18)	3927	Authored by D. Kunkel and P. Ourisson (Quality Associates, Inc.). Support provided by R. Melnicoe, University of California; S. Miyazaki, Michigan State University; S. Weller, Purdue University; L. Binning, University of Wisconsin; P. Kloft, Collins Ag. Consultants, Inc., Hillsboro, OR; and USDA-ARS scientists R. Boydston (WA) and P. Schwartz (MD). Toxicology and methodology data provided by Novartis.
Desmedipham (H)	BETANEX®	Garden Beet	25 AUG 99 (Rule) (TLT Extension under Section 18)	337	Authored by E. Lurvey. Support provided by J. Martini and R. Bellinder, Cornell University; S. Miyazaki and B. Zandstra, Michigan State University; L. Binning, University of Wisconsin; C. Kee, North Dakota State University; R. Melnicoe, University of California; R. McReynolds, Oregon State University; C. Meister and W. Stall, University of Florida; R. Talbert, University of Arkansas; J. Martins, Ratto Brothers, Inc., Modesto, CA; R. Miller, Minnesota Valley Testing Labs., New Ulm, MN; and USDA-ARS scientists R. Boydston (WA), D. McCommas (TX), and P. Schwartz (MD). Toxicology and methodology data provided by AgrEvo.

Food-Use Program Clearance Successes, 3rd Quarter, 1999

Pesticide*	Trade Name	Site	*Federal Register*	PR. NO.	Cooperators/Comments
Pendimethalin (H)	PROWL®	Carrot	1 SEP 99 (Rule) (TLT under Section 18)	4084 A4084 B4084	Study Director is D. Kunkel. Support provided by R. Hampton, C. Bell, T. Prather and C. Mourer, University of California. Toxicology and methodology provided by American Cyanamid.
Pendimethalin (H)	PROWL®	Mint	1 SEP 99 (Rule) (TLT under Section 18)	3888 5523 A3888	Study Director is F. Salzman. Support provided by R. Hampton and C. Mourer, University of California; S. Miyazaki, Michigan State University; L. Binning, University of Wisconsin; S. Weller, Purdue University; R. Lundy, Mint Industry Research Council; and USDA-ARS scientists R. Boydston (WA), L. Birch (WA) and P. Schwartz (MD). Toxicology and methodology data provided by American Cyanamid.
Cymoxanil (F)	CURZATE®	Hop	1 SEP 99 (Rule) (TLT under Section 18)	6941	Study Director is D. Thompson. Support provided by R. Hampton and C. Mourer, University of California; R. Klein and R. Wight, Washington State University; J. Barbour, University of Idaho; and D. Anderson, Western Biochemical Consulting, Inc. Toxicology and methodology data provided by DuPont.
Pendimethalin (H)	PROWL®	Citrus	1 SEP 99 (Rule) (TLT under Section 18)	5732 A5732 5748 5749 A5748	Authored by D. Kunkel, R. Sweeney (ABC Labs) and W. Barney (Environmental Technologies Institute). Support provided by C. Meister and R. Braddock, University of Florida; R. Melnicoe, University of California; D. Swietlik and L. Brandenburger, Texas A&M University; T. Miller, Florida Pesticide Research, Oviedo, FL; M. Miller, Excel Research Services, Inc., Fresno, CA; S. Schuefele, Porterville, CA; F. Krupala, Raymondville, TX; R. Paden, J. Howe and D. Bunker, Yuma, AZ; W. Currey, Melrose, FL; J. Scott, Jupiter, FL; T. Duda, Labelle, FL; D. Remick, Clewiston, FL; and R. Shembarger, Ft. Pierce, FL. Toxicology and methodology data provided by American Cyanamid
Myclobutanil (F)	RALLY®	Asparagus	2 SEP 99 (Notice)	5414 A5414	Study Director is D. Thompson. Support provided by J. Martini, Cornell University; S. Johnston, Rutgers University; S. Miyazaki and M. Hausbeck, Michigan State University; C. Meister, University of Florida; A. Keinath, Clemson University; J. Damicone, Oklahoma State University; R. Melnicoe, University of California; S. Mangini, Del Monte Research Center, Walnut Creek, CA; and M. Allan, Plant Sciences Inc., Ripon, CA. Toxicology and methodology data provided by Rohm and Haas.

Food-Use Program Clearance Successes, 3rd Quarter, 1999

Pesticide*	Trade Name	Site	*Federal Register*	PR. NO.	Cooperators/Comments
Myclobutanil (F)	RALLY®	Caneberries	2 SEP 99 (Notice)	5057 5058	Authored by D. Thompson. Support provided by R. Melnicoe, University of California; J. DeFrancesco, Oregon State University; K. Al-Khatib, Washington State University; J. Martini, Cornell University; S. Johnston, Rutgers University; S. Miyazaki, Michigan State University; M. Ellis, Ohio State University; B. Goulart, Pennsylvania State University; C. Meister, University of Florida; H. Stiles, Virginia Tech; S. Bost, University of Tennessee; P. Kloft, Collins Ag. Consultants; P. Reiche and S. Mangini, Del Monte; and USDA-ARS scientists B. Smith (MS), C. Krause (OH) and P. Schwartz (MD). Toxicology and methodology data provided by Rohm and Haas.
Myclobutanil (F)	RALLY® NOVA®	Snapbean	2 SEP 99 (Notice)	3966 A3666	Authored by D. Thompson. Support provided by C. Meister and T. Kucharek, University of Florida; S. Miyazaki and B. Zandstra, Michigan State University; W. Stevenson and J. Wyman, University of Wisconsin; R. Melnicoe, University of California; J. Bartini and G. Abawi, Cornell University; C. Mullins, University of Tennessee; R. Baldwin, Virginia Polytechnic Institute and State University; R. Collins, Hillsboro, OR; P. Reiche and S. Mangini, Del Monte; and USDA-ARS scientists A.W. Johnson (GA); S. Benzen (CA) and P. Schwartz (MD). Toxicology and methodology data provided by Rohm and Haas.
Myclobutanil (F)	RALLY® NOVA®	Currant Gooseberry	2 SEP 99 (Notice)	5308 5309	Authored by D. Thompson. Support provided by R. Melnicoe, University of California; J. Pscheidt, Oregon State University; A. Schreiber, Washington State University; J. Martini, Cornell University; B. Goulart, Pennsylvania State University; and S. Mangini, Del Monte. Toxicology and methodology data provided by Rohm and Haas.
Myclobutanil (F)	RALLY®	Mint	2 SEP 99 (Notice)	5409	Authored by D. Thompson. Support provided by R. Melnicoe, University of California; D. Johnson, Washington State University; S. Miyazaki, Michigan State University; S. Weller, Purdue University; W. Stephenson, University of Wisconsin; J. Calkin, Ag Solutions, Corvallis, OR; S. Mangini, Del Monte; and R. Lundy, Mint Industry Research Council. Toxicology and methodology data provided by Rohm and Haas.
Myclobutanil (F)	RALLY® NOVA®	Strawberry	2 SEP 99 (Notice)	4015	Authored by W. Biehn. Support provided by R. Melnicoe, A. Paulus and D. Gubler, University of California; J. Pscheidt, Oregon State University; B. Goulart, Pennsylvania State University; S. Miyazaki, Michigan State University; M. Ellis, OARDC, Wooster, OH; C. Meister and F. Howard, University of Florida; R.W. Miller, Clemson University; L. Black, Louisiana State University; C. Averre, North Carolina State University; R. Curtis, California Strawberry Advisory Board; C. Mullins, University of Tennessee; and Del Monte Research Center, Walnut Creek, CA. Toxicology and methodology data provided by Rohm and Haas.

Food-Use Program Clearance Successes, 3rd Quarter, 1999

Pesticide*	Trade Name	Site	*Federal Register*	PR. NO.	Cooperators/Comments
Sucrose fatty acid esters (I)	Avachem Sucrose Octanoate	All Food Commodities	9 SEP 99 (Notice)	89B	Authored by W. Biehn and C. Hartman. Support provided by M. Parrella, B. Murphy, and D. von Damm-Kattari, University of California and USDA-ARS scientist G. Puterka (WV). Toxicology, product chemistry and manufacturing data provided by AVA Chemical Ventures, L.L.C.
Sulfentrazone (H)	AUTHORITY®	Sunflower	21 SEP 99 (Rule) (TLT under Section 18)	6911	Study Director is J. Corley. Support provided by J. Nalewaja, B. Jenks and R. Zollinger, North Dakota State University; S. Miyazaki, Michigan State University; S. Wingfield, Agrisan Inc., Easton, CO; S. Clay, South Dakota State University; R. Spotanski, Midwest Res., York, NE; and C. Nord, Diamond Ag. Res., Larned, KS. Toxicology and methodology data provided by FMC.
Sulfentrazone (H)	AUTHORITY®	Lima Bean Cowpea (Dry Bean)	21 SEP 99 (Rule) (TLT under Section 18)	7583 6909	Study Director is F. Salzman. Support provided by C. Meister, University of Florida; S. Little, Pictsweet Frozen Foods, Bells, TN; R. Talbert, University of Arkansas; and USDA/ARS scientists H. Harrison (SC) and P. Schwartz (MD). Toxicology and methodology data provided by FMC.
Tebufenozide (I)	CONFIRM®	Turnip (Root and Top) Turnip Greens	29 SEP 99 (Rule)	6346	Authored by K. Dorschner and K. Breuninger (Writers, Inc.). Support provided by C. Mullins and N.B. Shamiyeh, University of Tennessee; C. Meister, University of Florida; S. Mangini, Del Monte Research Center, Walnut Creek, CA; and USDA-ARS scientists A. Johnson (GA), A. Simmons (SC), D. McCommas (TX), C. Tappan (OH), S. Benzen (CA) and P. Schwartz (MD). Toxicology and methodology data provided by Rohm and Haas.
Tebufenozide (I)	CONFIRM®	Canola	29 SEP 99 (Rule)	6473	Authored by K. Dorschner and K. Breuninger (Writers, Inc.). Support provided by S. Miyazaki, Michigan State University; M. Weiss, North Dakota State University; C. Meister, University of Florida; E.F. Eastin, University of Georgia; D. Rothwell, Pest Management Regulatory Agency, Ontario, Canada; D. Rourke, Enviro-Quest, Manitoba, Canada; M. Gerngross, Texas A&M University; S. Mangini, Del Monte Research Center, Walnut Creek, CA; and USDA-ARS scientists H. Toba (WA) and P. Schwartz (MD). Toxicology and methodology data provided by Rohm and Haas.
Diflubenzuron (I)	DIMILIM®	Pear	29 SEP 99 (Rule) (TLT under Section 18)	6367	Study Director is K. Dorschner. Support provided by R. Hampton and T. Prather, University of California; P. VanBurskirk, Oregon State University; A. Schreiber, Washington State University; V. Fischer, Collins Ag. Consultants, Hood River, OR; W. Palmer, ACDS, Williamson, NY; E. Lurvey, Cornell University; G. Walker, Ontario Ministry of Ag., Vineland Sta., Canada; D. Rothwell, Pest Management Regulatory Agency, Ottawa, Ontario, Canada; and L. Ruza, PTRL West Inc., Richmond, CA. Toxicology and methodology data provided by Uniroyal.

* For Pesticide: F=Fungicide, H=Herbicide, I=Insecticide, R=Rodenticide

IR-4 FOOD-USE PROGRAM

IR-4 Food-Use Research - 1999 and 2000

1999 Final Tally Is 608 Trials

The final tally for the 1999 research program is in. IR-4 conducted 151 studies supported by 608 field trials. Pesticide performance trials were conducted on 18 field trials. IR-4 is already gearing up for 2000 research. The IR-4 Food Use Workshop was held in August and the final research plans will be made at our National Research Planning meeting scheduled for October 26 and 27, 1999.

The number of field trials in 1999 is as follows:

Northeast:	72
Northcentral:	83
Southern:	103
Western:	200
USDA-ARS:	120
Canada:	12
Performance:	18
Total:	608

IR-4 continues to aggressively pursue its 30 month time-line to complete studies. Many of the 1999 Field Data Notebooks have already been completed and are in the process of being reviewed and sent to Headquarters. This initiative requires that everyone in the program participate. Thanks to all the folks that have completed their notebooks in advance of the timelines. And to the folks that are still working on your notebooks, please help us out by getting them in as soon as possible!

Article by Dan Kunkel

Industry Meetings with IR-4 during the 3rd quarter 1999: IR-4 Headquarters staff had several technical meetings with cooperative chemical companies in this quarter. The Study Directors, as well as the Research and Registration managers met with Rohm and Haas representatives to discuss their new insecticide methoxyfenozide, representatives from Makhteshim-Agan N.A. Inc. met to discuss cooperative projects, and Dr. R. Kaiser of AgrEvo met to discuss new fungicides. A representative from EcoScience Corp. visited to discuss some of their new products and registration initiatives. Also, Dr. Jim Griffiths visited Headquarters to discuss the possibility of registering Arsanilic acid on grapefruit. After an extensive exchange of information, Dr. Griffiths visited EPA and the USDA to discuss the project in more detail. Hopefully, IR-4 will be able to assist the Florida growers in their registration efforts.

IR-4 Biotechnology Program: Recent Progress and Future in Addressing Minor Crop Growers Needs

The IR-4 New Technology Team has taken a pro-active approach to pursue the latest technology in crop protection in a effort to extend this technology to minor crop growers. Their initiatives include: working with developing new pesticides for minor uses, especially the new reduced risk pesticides; developing biopesticides, methyl bromide replacements and finally transgenic crops. Today there are several transgenic crops, including some minor crops, available that express *Bacillus thuringiensis* (Bt) and provide insect resistance. Although IR-4 has not been directly involved in the development of Bt transgenic crops, IR-4 cleared Bt for use on all Raw Agricultural Commodities in 1976.

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IR-4 Biotechnology Program: Recent Progress and Future in Addressing Minor Crop Growers Needs

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IR-4 is in the process of formalizing a biotechnology program but has not been involved in any research involving actual genetic transformations. IR-4 has only been involved in developing new residue data that are required for these new uses. The first transgenic project that IR-4 was involved with is the glufosinate tolerant sweetcorn (Liberty Link® Sweetcorn). IR-4 pursued this project under the request of interested parties in Wisconsin who urgently need triazine replacement herbicides. In Wisconsin, atrazine use is already banned in several groundwater-sensitive areas, and cyanazine use is being phased out across the country. In Wisconsin there are also several triazine resistant weeds and other weeds that are difficult to control with the remaining labeled herbicides. In addition, many of the currently registered herbicides may cause injury to many of the popular sweetcorn varieties. Several sweet corn varieties had already had the Liberty Link® gene in them, however, this new use of glufosinate still required residue data to show that the herbicide residue level is acceptable and safe for consumers. IR-4 initiated work in 1997 to determine glufosinate residues in sweetcorn grown in the mid-west only. The samples have been collected and residue analysis is nearly complete. The complete package will be submitted to EPA for a regional registration in 2000. In 1999, Wisconsin pursued and received a Section 18 and time limited tolerance based on IR-4 support for this use.

At the 1998 IR-4 Food Use Workshop, requesters across the country agreed that Liberty Link® sweetcorn was an important need and had requested that IR-4 complete trials for Liberty Link® sweetcorn as a national research project in 1999. Liberty Link® sweetcorn also contains the Bt gene, therefore, this new use would not only reduce the use of triazine herbicides in sweetcorn but also will significantly reduce the amount of insecticides used in this crop for control of corn earworm, corn borer and other lepidopterous pests.

IR-4 is getting involved in other transgenic projects using Round-up Ready® crops as these uses may provide possible alternatives to Methyl Bromide in crops such as tomatoes and strawberries, and for Food Quality Protection Act vulnerable uses on other crops such as lettuce. Although the future of transgenic crops are uncertain, the development of herbicide tolerant and insect resistant crops are likely to be followed by disease resistant traits. As well, value added (output) traits with altered nutritional value (such as high oil, high Lysine and Methionine) will likely be released in the next 2-5 years and plants that produce biopolymers, plastics, bioethanol, vitamins, customized chemicals, pharmaceuticals, etc are somewhere on the horizon. Many of these transgenic crops are likely to have the greatest utility in developing countries by providing a more nutritious diet and increasing crop production with herbicide tolerant and insect and pathogen resistant crops. However, public opinion and acceptance remain viable concerns regarding the development of this technology and its future in agriculture.

Article by Dan Kunkel

Summary of the 1999/2000 IR-4 Food-Use Workshop

The majority of the research priorities for IR-4's year 2000 research program were assigned at the 23rd Food-Use Workshop, August 25-27 at the Adam's Mark Hotel, Denver, Colorado. Research priorities were reviewed for minor crop pest control needs on most fruit, vegetables and herbs grown in the United States and Canada. In addition, minor uses on major food crops were also discussed. Additional priorities will be obtained directly from people associated with tropical crops, artichokes, bee hives, cranberries, canola, clover, grass seed, hops, mint and mushrooms.

The workshop was attended by minor crop researchers, extension specialists, extension agents, growers, representatives of commodity organizations and registrants, as well as by personnel from EPA, USDA and IR-4. In total, 142 attendees participated in the priority-setting workshop. There were three principal divisions at the workshop: Disease Control, Insect Control, and Weed Control.

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Summary of the 1999/2000 IR-4 Food-Use Workshop

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A total of 559 potential research projects was reviewed. Participants were strongly encouraged to concentrate on potential new "safer" pesticides as tools to manage existing pest control voids or tools to replace pesticide uses at risk of being canceled due to EPA's tolerance reassessment activities. Prior to the workshop, participants were provided a summary of newly or soon-to-be registered pesticides. In addition, representatives from several conventional chemical and biopesticide companies provided a brief presentation of their technology.

Following the format changes initiated several years back, research project prioritization participants were instructed to rank potential year 2000 research projects in one of four priority categories. *Priority A* and *Priority B*, the two highest ranking priorities, had limits on the number of projects assigned. *Priority A* was limited to the upper 10% of projects reviewed while *Priority B* was capped at 25% of potential projects. *Priority C* and *Priority D* are of lower importance and did not have caps on the number of projects ranked. The number of research projects per category is as follows:

	Disease Control	Insect Control	Weed Control
Priority A	23	20	21
Priority B	40	52	58
Priority C	137	145	137
Priority D	14	5	8
New Requests Submitted	31	25	52
Request Withdrawn	11	15	42

Finalization of priority assignment will occur with submission of priorities from certain commodity organizations (artichoke, canola, hop, mint, etc.) and the tropical working group. Research project selection and assignment occur at the IR-4 National Research Planning Meeting. Recognizing that current priority procedures concentrate on national research priorities, each IR-4 region will have an opportunity to upgrade certain priorities to reflect the need of a use in a specific region. At the IR-4 National Research Planning Meeting, IR-4 resources will be designated to initiate a complete research program for all *Priority A* projects with submission to EPA scheduled for 2002. *Priority B* projects will be chosen to maximize the utilization of IR-4 funds. Projects categorized as *Priority C* or *Priority D* will not be funded by IR-4 unless all *Priority A* and *Priority B* projects are chosen for research.

Article by Jerry Baron

IR-4 Ornamentals Program

New Pesticide Registrations for Ornamentals Supported by IR-4

Since the last IR-4 Newsletter, 223 new ornamental use registrations have been obtained. They include the following:

- Azoxystrobin - Abelia, False Arborvitae (Thujopsis), Japanese Aster (Kalimeris), Michaelmas Daisy (Aster), Azalea, Heavenly Bamboo, Barberry, Birch, Bolton Aster (Boltonia), Bridal Wreath (Spirea), Bugleweed (Ajuga), Butterfly Bush (Buddleia), Cedar (Cedrus), Chrysanthemum, Cotoneaster, Crape Myrtle, False Cypress, Shasta Daisy (Chrysanthemum), Flowering Dogwood, English Ivy, Winged Euonymus, Foxglove, Forsythia, Geranium, Heath (Erica), Hemlock, Holly, Juniper, Lilyturf, Magnolia, Maple, Oak, Pampas Grass, Periwinkle, Photinia, Pieris, Pine, Plantain Lily, Primrose, Privet (Ligustrum), Redbud, Rose, Rose Mallow (Hibiscus), Sage (Salvia), Spruce, Stonecrop (Sedum), Summer-Sweet (Clethra), Virginia Sweetspire (Itea), Weigela, Wormwood (Artemesia), Yew (Taxus).

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New Pesticide Registrations for Ornamentals Supported by IR-4

Continued from Page 14

- Clopyralid - Boxwood, Flowering Dogwood, Juniper, Potentilla (Cinquefoil), Plane Tree (Platanus), Spirea, Sycamore
- Cyromazine - Lobelia
- Deltamethrin - African Violet, Ageratum, Azalea (Rhododendron), Balsam (Impatiens), Begonia, Carnation, Chrysanthemum, Dumb Cane (Dieffenbachia), English Ivy, Fern (Polypodium), Gardenia, Geranium, Hibiscus, Hydrangea, Madwort (Alyssum), Pansy, Periwinkle, Persian Violet, Pinks (Dianthus), Poinsettia, Scarlet Sage (Salvia), Shasta Daisy (Chrysanthemum), Shrub Verbena (Lantana), Transvaal Daisy (Gerbera), Umbrella Tree (Schefflera), Vervain (verbena).
- Ferbam - Carnation, Tulip.
- Mancozeb - Crape Myrtle.
- Oryzalin - Southern Magnolia.
- Pyridaben - Ageratum, Arborvitae, Barberry (Berberis), Bolton Aster (Boltonia), Boxwood, Elm, English Ivy, Elephants Ear (Cladium), Fir (Abies), Firethorn (Pyracantha), Geranium, Holly (Ilex), Japanese Aster, Juniper, Lily, Magnolia, Mock Orange (Philadelphus), Pansy (Viola), Pear (Non-Bearing), Periwinkle (Vinca), Pinks (Dianthus), Primrose, Purple Wintercreeper (Euonymus), Rhododendron, Rose, Rose Mallow (Hibiscus), Vervain (Verbena)
- Spinosad - Winged Euonymus, Rose
- Uniconazole - Coleus

Ornamentals Uses Presentations

• During the joint meeting of the Northeast and Western Forest Nurseryman Meeting at Ames, Iowa (July 12-16, 1999), Ray Frank presented a paper entitled "What is the IR-4 Program and How it Benefits Nurseries". It will be published in a formal proceedings.

• Ray attended the Southern Nursery Association (SNA) Research Conference in Atlanta, Georgia (July 28-August 1, 1999) and presented a paper entitled "IR-4 Research for Pest Control in Nursery Crops - 1998". This paper will be published in the Annual Research Conference Proceedings. While at SNA, he attended the Nursery Convention and spoke to a large number of nursery growers one-on-one.

• Ray also attended the Tan-Misslark Trade Show in Dallas, Texas (August 4-8, 1999), as an invited speaker for a preshow Nursery Industry Education Seminar (Texas Nursery and Landscape Association), The paper was entitled "IR-4 Ornamentals Pest Control Registration Program and How it Helps the Grower". He spoke to many nursery growers one-on-one. In August (August 1, 1999) the *American Nurseryman Magazine* published an article authored by J. Ray Frank, entitled "Seeking Approval" which discussed the successes of the IR-4 Ornamentals Research Program for the U.S. nursery industry.

Article by Editor and J. Ray Frank

IR-4 Ornamentals Workshop

Final preparations are now underway for the IR-4 Ornamentals Workshop to be held in Portland, Oregon during October 18-21, 1999. A report will be published in the next Newsletter.

IR-4 BIOPESTICIDE PROGRAM

CALL FOR BIOPESTICIDE GRANT PROPOSALS

The IR-4 Biopesticide Research Program announces a request for proposals (RFP) for funding in year 2000. Early stage biopesticide proposals are due on 15 November 1999. Advanced stage biopesticide proposals are due on 15 December 1999. Instructions for proposal content, format, and submission can be obtained from IR-4 Headquarters or the Regional Offices.

For additional information contact:

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APPROVALS

The following IR-4 biopesticide projects were recently approved by EPA.

1) BETTERBEE INC. FORMIC ACID GEL PACK for use in Honey Bee Hives for the Control of Tracheal Mites and Suppression of Varroa Mites. This registration was based on a data package prepared by IR-4 in cooperation with BETTERBEE INC. and the USDA. BETTERBEE INC. has licensed the Formic Acid Gel Pack technology from the USDA.

2) NIMBECIDINE (Azadiractin based botanical insecticide and insect repellent) for use on ornamentals and turf. This registration was based on a data package prepared by IR-4 in cooperation with PBT International.

3) MCH (3-methyl-2cyclohex-1-one) an antiaggregation pheromone for control of Douglas fir beetle and spruce beetle. IR-4 funded research by Dr. Ross at Oregon State University and Dr. Daterman at the USDA Forest Service in Corvallis, Oregon to evaluate MCH for control of the Douglas fir beetle in high-value stands of mature Douglas-fir. Phero Tech Inc. is the registrant of the end use product.

4) Companion® Liquid Biological (containing *Bacillus subtilis* GB03) Experimental Use Permit granted for use on Turf and Ornamentals was based on a data package prepared by IR-4 in cooperation with Growth Products.

Article by Bill Biehn

IR-4 QUALITY ASSURANCE

QA Focus - Qualifications & Training

(16th in a series of QA updates)

In past Focus articles, we have addressed the need for training of personnel. This feature will be specific to QA personnel. In October (11-15), the Society of Quality Assurance (SQA) will hold its annual meeting in Chicago, IL. We at HQ are especially pleased to see a greater emphasis on QA issues related to field research programs.

Our SQA Annual Meeting is known for its rigorous agenda. Sessions begin promptly at 8:30 a.m. and run through late afternoon. However, there are also business & committee meetings, focus group sessions, and regional Chapter meetings that occur "off the grid"(scheduled after the full day's program). These sessions sometimes run past 9 p.m. Tammy White is involved in the SQA's National Education Committee, and Kathryn Hackett-Fields is involved with the Professional Certification Task Force. Involvement takes our time and effort, but serves to enhance our effectiveness as QA auditors, as resources to IR-4 professionals, and also keeps our Project's GLP program "visible."

This year's topics include: Auditing Field Studies, Tips for Training, Electronic Issues: Records & Signatures, Archiving, Current Issues in Field Studies, and our favorite, "The AgChem Power Hour (and a half)". You can see by this small portion of the meeting's schedule, that our attendance will be important for IR-4. We will gain practical knowledge on Computer Validation issues, and auditing Analytical Chemistry. Other features of the meeting include a resource room, and a poster session, in which we will be a participant.

Our poster will display a synopsis of lessons learned from the large number of EPA audits of IR-4 field and lab sites to-date. We have a large number of audits because of the large number of IR-4 petitions submitted to EPA. The poster will show some of the ways we have responded toEPA findings and suggestions, such as implementing new training programs IR-4 has conducted, and the revision of field notebooks.

Finally, this meeting allows us to network and compare notes with other auditors engaged in our area of expertise, and to hear a keynote speaker, Dr. Seth Shostak of SETI Institute. What, you may wonder, does the Search for Extraterrestrial Intelligence have to do with QA? We will have to fill you in on that one, because our keynote speakers tend to wrestle with challenging topics, but you can be sure that if sophisticated digital receivers on telescopes can be calibrated, we will find a way to do the same with our airblast sprayers! So, wish us well in October as we settle for some earthly intelligence to enhance our QA skills in the Windy City. We will summarize the meeting's impact on IR-4 in our next Focus.

Article by Editor and Kathryn Hackett-Fields

IR-4 National Outreach Specialist/Communications Report

IR-4 will have a presence at the American Farm Bureau Federation Convention in Houston, Texas during January 9-11, 2000. A one-on-one poster presentation titled, "IR-4 Helps Minor Crops Survive FQPA", will provide the opportunity for direct interaction with over 5,000 farmers and ranchers representing every state in the U.S. The abstract for the poster (which was restricted to one hundred words) is as follows: "The Interregional Research Project Number 4 (IR-4) develops data to register pest control agents for use on minor crops. Minor crops make up nearly half of all US crop sales. Growers, commodity groups, researchers and others help IR-4 identify pest control product gaps. As FQPA threatens the availability and use of many key pesticides, efforts are expanding to register reduced risk and biologically-based pesticides essential to Integrated Pest Management systems. The goal of IR-4 is to insure that minor crop producers have an adequate number of pest control products to competitively produce safe and wholesome agricultural products".

A slide set about the workings of IR-4 and its response to FQPA was prepared for delivery at the July, 1999 XIVth International Plant Protection Congress, Jerusalem, Israel by Dr. Robert Hollingworth. He noted that the presentation was well attended with lively interest in the methods that IR-4 uses to accomplish its goals. The slide set was converted to a poster format for display at the Food Use Workshop in Denver, CO.

J. Ray Frank had a 4-page article published in the August 1, 1999 *American Nurseryman* magazine. The title is "Seeking Approval: A Government-Supported Program Helps Foster Pesticide Label Registration And Expansion For The Nursery Industry". The article was illustrated with Ray's slides and included a list of ornamental pesticides now registered as part of IR-4's program. Also included was a list of pesticides on which IR-4 research is being conducted for possible future ornamental registrations.

At the time of this writing there are several other projects in the works: a brief on IR-4 for use by Congressional aides, an article on IR-4 and FQPA for grower publications and an introductory slide set explaining what IR-4 is and how it works. More information on these projects will be included in the next Newsletter.

Article by Sandy Perry

Update - IR-4 Methyl Bromide Alternatives Programs for Strawberries and Tomatoes

New Treatments Added

New treatments have been added to IR-4's methyl bromide alternatives programs for strawberries and tomatoes. The treatments include two (2) rates of methyl iodide (MI) plus chloropicrin and a single rate of methyl iodide alone. Also added to one of IR-4's strawberry trials (Oxnard site) is a single treatment involving DiTera ES Biological Nematicide. This product is a specific nematicide and will be used in combination with chloropicrin for control of soilborne diseases and metam sodium for weed control.

Rates of MI and methods of application are a 1X rate of a 67:33 ratio of MI + chloropicrin at 350 pounds product per acre (235/lbs. /acre MI + 115 lbs./acre chloropicrin). An approximately 1/2 X rate of MI will be used by applying a product formulated in a 50:50 ratio of MI + chloropicrin. This treatment will use 117 lbs./acre MI and 117 lbs./acre chloropicrin. MI will also be used alone at 117 lbs./acre. All MI treatments will be bed-fume applied during the bed listing-shaping process by shanking -in to a depth of 10-12 inches (shanks spaced 10" apart). All MI treatments are to be evaluated in direct comparison to the standard full use rate of methyl bromide (67:33) at 350 lbs./acre.

DiTera ES Biological Nematicide will be used at 8 gallon product per acre via drip irrigation at least 14 days prior to transplanting. It will also be applied via drip irrigation at 5 gallon product per acre 2-5 days post-transplanting. The DiTera ES treatments are to follow metam sodium (42% a.i.) applied at 37.5 gallons product per acre over bed tops immediately prior to laying the plastic mulch and 7-10 days prior to a preplant drip applied treatment of chloropicrin at 200 lbs. per acre.

We are very pleased with the support of Abbott Laboratories by bringing DiTera ES Biological Nematicide into IR-4's program and for the support of Tomen Agro for including methyl iodide. Both products add interesting and potentially important new dimensions to the spectrum of pests controlled in this critically important program for U.S. strawberry and tomato producers.

New Members of Advisory Board

We are pleased to announce the addition of two new members to IR-4's Methyl Bromide Alternatives Program. They are Dr. Husein Ajwa, USDA ARS, Fresno, California and Dr. Frank Sances, Alliance for Alternative Agriculture, San Luis Obispo, California. Dr. Ajwa has already provided significant input into the planning of IR-4's strawberry program and we sincerely thank him for his help. We look forward to the help that Dr. Sances can provide through his extensive experience and knowledge of California agriculture and even more specifically with his experience in methyl bromide alternative research programs.

Article by Jack Norton

The EPA/IR-4 Technical Working Group

The most recent of a series of meetings between the IR-4 Headquarters scientists and key scientists from the Environmental Protection Agency (EPA), intended to produce a more efficient system of IR-4 data submission and EPA review, was held on 14 September 1999, in Crystal City, Virginia. Participants from the EPA included Hoyt Jamerson, Bernie Schneider, Jeff Herndon, Sidney Jackson, Jim Jones, Shaja Brothers, Margaret Stasikowski, Rob Forrest, Clark Swentzel, Donna Davis, Karen Whitby, and Will Donovan. Additional attendees included Paul Schwartz (USDA-ARS), Willis Wheeler (IR-4 Liaison to EPA-OPP) and Doug Rothwell (Health Canada).

The agenda included a status report on EPA's FY 1999 workplan (regarding the review of pesticide use petitions) and a discussion of the FY 2000 workplan. Specifically discussed were the petitions that IR-4 plans to submit during the next 12 months, as well as a report from Canada on IR-4/PMRA cooperative review projects. The results of IR-4's recent Food Use Workshop, in which potential studies for 2000 were prioritized, were also discussed. EPA personnel will provide their thoughts on the new compounds with which IR-4 plans to work in advance of the National Research Planning Meeting (October 26-27).

Next came a discussion of NAFTA cooperative residue data development with Canada and Mexico. Mexico is looking to begin a pesticide residue program similar to the IR-4 Project.

The group was brought up-to-date on the status of special projects begun at previous working group meetings, including studies involving spinosad, azoxystrobin, glyphosate, imidacloprid, methyl bromide, and ant bait stations.

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The EPA/IR-4 Technical Working Group

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The EPA scientists listened to a request from IR-4 that the Study Director be contacted to discuss problems noted during petition review at EPA, prior to finalizing the Agency's decision on the submission. The Agency personnel felt that it would be more appropriate for IR-4 to discuss mitigating factors in the petition when problems are noted, and that appeals of EPA decisions would receive proper consideration.

After lunch, new proposals were brought up for discussion, including a reduced residue data set for methoxyfenozide and non-food classification for several zinc phosphide and hydrogen cyanamide uses. No decisions were made on these proposals at this meeting; the appropriate IR-4 study directors will follow-up with EPA.

Next was an update on the status of crop group proposals. The proposed changes are the placement of culinary herbs and beet tops in crop group #4 and turnip tops in crop group #5.

Following this was a discussion about a standard time period (3 years) for the submission of additional residue field trials required by EPA after their review of submitted data.

The meeting finished with a discussion of transgenic herbicide-tolerant crops and variety requirements, a review of EPA/Codex tolerance vocabularies, an invitation to the Agency personnel to attend the IR-4 Annual Meeting and Symposium October 5-7, and an agreement to meet again at IR-4 Headquarters, most likely in late January, 2000.

Article by Ken Samoil

Meet Your New Study Director

Van Starner recently joined IR-4 Project Headquarters staff as an Associate Coordinator in Entomology/Plant Pathology. He came to IR-4 from Novartis Crop Protection, Inc., in Greensboro, NC, where he was Product Development Manager within the fungicide business unit. Van's primary responsibilities included leading development teams for all fungicide products, maintaining regulatory progress to meet registration targets, compiling reduced risk rationales, coordinating annual development budgets and product portfolio updates, and securing import tolerances in key countries. Prior to his two years at Novartis, Van was Associate Director in Agricultural Research and Development, International, at Merck and Co., Inc., in Three Bridges, NJ, for seven years. At Merck he coordinated all R&D aspects for the avermectins (abamectin, emamectin benzoate) outside the US and Canada. His primary focuses were efficacy and GLP residue programs in Europe and Mexico; R&D and regulatory responsibilities in Australia, Latin America, and Southeast Asia; and obtaining the first emamectin benzoate registration in 1997, in Japan, through two Japanese partner companies. Van has also worked as Director of Research for a GLP-compliant field contract company and as a consultant with a fertilizer company, both in Pennsylvania; and as a Technical Supervisor in field development at the former Pennwalt Corporation in the mid-Atlantic and mid-west areas. In addition ,Van has extensive "on-the-farm" experience gained by growing up working on family/neighbor fruit and vegetable farms in south central PA. He earned his MS in Entomology at Penn State under Dr. Larry Hull and his Ph.D. in Entomology at Rutgers under the direction of Dr. Fred Swift. Please join us in welcoming Van to IR-4 by contacting him at (732) 932-9575 ext. 621, e-mail starner@aesop.rutgers.edu.

Article by Editor and Van Starner

Oilseed Crops Update - Help from our Canadian Friends

The IR-4 Project is always searching for more efficient ways to aid our minor crop growers in obtaining the tools they need. Through cooperation with Doug Rothwell of PMRA/Health Canada, we are trying to harmonize our pesticide registrations and cooperate on developing data that are useful to both countries. We are currently collecting data created in Canada that have supported current labels there for use in supporting tolerance petitions in the U.S. This is especially true for the oilseed crops such as flax, sunflower and safflower.

Crop groups are an organization of crops with similar physiology, morphology, and use patterns. By creating crop groups, representative crops (which are the most widely grown crops of a group) are used to represent all the crops within a group. Therefore, residue studies are only needed on the representative crops to obtain tolerances on all crops within the group. We are in the process of developing a crop group definition for oilseed crops. Currently, oilseed crops including Ben moringa seed, Borage, Buffalo Gourd, Castor Oil Plant, Coconut, Cottonseed, Crambe, Cuphea, Safflower, Sunflower, Mustard oil, Canola, Flax, Sesame, etc. are all miscellaneous crops and each one needs to have a residue study to establish a tolerance. In Canada, an oilseed crop group already exists, so that Rapeseed and Sunflower also represent Indian Rapeseed, Indian Mustard Seed, Field Mustard Seed, Flax and Safflower.

Article by Michael Braverman

Bifenthrin Registered on Minor Crops

Bifenthrin, a synthetic pyrethroid insecticide produced by FMC Corporation and marketed as Capture®, Brigade®, and Talstar®, has recently been registered on Brassica vegetables (cabbage, broccoli, cauliflower, etc.), cucurbits, edible-podded legumes, succulent shelled peas and beans, globe artichoke, canola, and sweet corn. Data to support all of the tolerances for the above registrations, except for the sweet corn, was generated by the IR-4 Project. These submissions received high priority for review at EPA because many of the proposed uses were classified as organophosphate (OP) alternatives.

In addition, the IR-4 Project has recently submitted petitions proposing tolerances for this compound on head lettuce, bell and non-bell pepper, and the caneberry crop subgroup (raspberries, et al.). Within the next two years, IR-4 plans to submit petitions proposing tolerances for bifenthrin on the herb crop subgroup (for registration of Talstar® applied in potting soil), and for celery, spinach, and mustard greens (field applications of Capture®). New residue studies for additional bifenthrin uses will begin in 2000.

The cooperation of FMC and the support from grower/processor groups has been an important key to the success of these studies. IR-4 will continue to work closely with FMC and other registrants, as well as with growers and processors and the EPA, to maximize the selection of pest management tools available to the growers of minor crops.

Article by Ken Samoil

IR-4 in Puerto Rico

IR-4 Headquarters was represented at the Fourth International Caribbean Conference of Entomology in conjunction with the Eighty-Second Annual Meeting of the Florida Entomological Society, San Juan, Puerto Rico, July 26-29, 1999. I presented a poster entitled "The IR-4 Project, a national agricultural program to clear pest control agents for minor crops in the U.S." The poster generated several newsletter subscription requests and discussion with several attendees about the IR-4 Project and the new tropical crop groups. (A modified version of this poster will be on display during November 1999, at the main office of Rutgers Cooperative Extension, Martin Hall, Cook College, Rutgers University, New Brunswick, New Jersey.) Symposia attended included "Curculionids of the Caribbean" and "Sweetpotato Insect Management".

On Friday, July 30, I was escorted by IR-4 cooperator Dr. Rafael Ingles on a tour of the agriculture of Puerto Rico (north of the mid-island mountain range). The most widely grown crops on the island are sweetpotato, yams, taniers, and plantains. Also widely grown are citrus fruits, pineapples, coffee, and sugar cane. The first stop on the tour was at a pineapple field, near Vega Baja, west of San Juan. Dr. Ingles showed me the effect of infestation by the gummosis moth on pineapples. Feeding by the caterpillar causes the fruit to exude a gummy substance that discourages the insect but also negatively impacts the marketability of the pineapple. A tebufenozide performance trial is underway. Next we went to a mixed planting of crops within another pineapple field, also near Vega Baja. The collection included sugar cane, pigeon peas, guava, and cassava. We then drove up into the foothills to the University of Puerto Rico agricultural research station at Corazol, the site of the plots for the IR-4 fipronil/plantain residue study. Also seen at this station were various citrus trees, neem trees (from which is extracted a biological insecticide), an experimental plot of carambolas (starfruits, which are not currently grown commercially on this island), and yams. After lunch, we continued west to the University of Puerto Rico agricultural research station at Isabela. We looked at sapodilla trees, mature neem trees, and a cassava plot badly infested by mites and thrips. Dr. Ingles and Dr. Edwin Abreu (who works at this station) requested information on new acaricides, which I subsequently e-mailed to them from IR-4 HQ. The tour was concluded by returning to San Juan via Mayaguez and Ponce, thus nearly circumnavigating the island.

Attending this meeting was an effective way to present information on the IR-4 Project to research entomologists from Puerto Rico, Florida, and other locations in the southeastern U.S. and other countries in the Caribbean region. With the creation of tropical crop groups, and the breakdown of trade barriers, IR-4 is likely to conduct an increased number of tropical crop studies in the near future.

Article by Ken Samoil

The 1999 American Phytopathological Society (APS) Joint Meeting with the Canadian Phytopathological Society (CPS) in Montreal, Canada from August 6-11: Crop Group Review

The meeting started with committee meetings on Saturday evening. Dave Thompson was the chair of the Chemical Control committee and convened this committee meeting.

On Sunday, there were two sessions to discuss Fungicide Management Program Evaluation and Needs. One of the sessions was held in the regular Small Fruit Workers meeting, where the strawberry fungicide program was discussed. In the Deciduous Tree Fruit Workers regular meeting, the apple fungicide program was discussed. Both of these sessions were well attended and it was decided to discuss blueberry fungicide management and stone fruit fungicide management in the respective groups at the 2000 APS meeting. These sessions utilized two tables that compared fungicide disease control on all diseases of these crops. Table 1 evaluated registered fungicides and table 2 evaluated not yet registered fungicides, i.e., new chemistry.

On Monday, the morning session had a number of paper presentations on chemical disease control in a variety of crops. Abstracts are available in the meeting abstract booklet. If you would like to see any of them, contact Dave Thompson at IR-4 HQ.

On Monday afternoon, two fungicide program evaluation sessions were held. These included bulb vegetables and leafy brassica vegetables. The bulb vegetable session had about 6 attendees, but 4 of the attendees were the main researchers in the U.S. Two additional significant players in this crop area were unable to attend the APS meeting, but their comments were received.

On Tuesday morning, two fungicide program evaluation sessions were held. These included cucurbit vegetables and leafy vegetables. The cucurbit session had about 15 attendees and a substantial discussion of present uses occurred. In the leafy vegetables session there were only 2 people and only a brief discussion occurred, additional review will be necessary.

Dave Thompson organized and moderated a symposium on Harmonization of Pesticide Registration on Tuesday afternoon. The session had about 100 attendees in the chemical half of the program and about 150 people in the biological half of the program. Bob Holm opened the session with the IR-4 story and how we are involved in working with other countries. The U.S. and Canada seem to be the most advanced in harmonization, especially in the realm of biologicals. The European chemical pesticide harmonization is coming along; however, it appears to be a complicated system. Registration of biological pesticides in the EU seems to be still in the "education of regulators" phase. It was repeatedly stated that there are few biologists on the review committees and most questions raised were appropriate for chemical registrations and not biologicals.

Article by Editor and Dave Thompson

Herbicide Projects Update

The IR-4 HQ staff responsible for a majority of the herbicide projects are M. Arsenovic, M. Braverman, and F. Salzman. Although new to IR-4, they are settling in and significant progress has been made in submitting herbicide petitions to the EPA. The new personnel, along with W. Biehn, J. Corley, D. Kunkel, and D. Thompson, have recently prepared petitions for sethoyxdim/pistachio and celery; paraquat/endive, persimmon, artichoke, and dry pea; glyphosate/dry bean and dry pea (for use as a desiccant); sethoxydim/safflower, pyridate/mint; clomazone/cucumber group (includes squash and melons); metolachlor/carrot (muck soils), asparagus, Swiss chard, grass for seed, pepper (bell and non-bell), rhubarb, tomato, and spinach; and clopyralid/head and stem Brassica sp. Of special interest is a petition for the use of glyphosate on many food commodities prepared by M. Braverman. This petition updates some of the current tolerances and includes major additions for use including prickly pear cactus, the herb and spice group, and miscellaneous tropical fruits. All of these petitions have been submitted to the EPA, and are currently scheduled for first or second quarter review.

Petitions that are actively being prepared for review by the EPA in the next 12 months include: clethodim/strawberry, celery, root vegetable subgroup, cucurbit vegetable group, cranberry, clover, and rhubarb; pendimethalin/pepper (bell and non-bell), mint, and tree nuts; halosulfuron/squash and cucumber subgroup; clopyralid/strawberry; and imazamox/legume vegetables (succulent and dried) group.

Article by Editor andFred Salzman

WSSA "Herbicide for Minor Use Committee"/IR-4 Project Initiatives: Herbicide Screening Program in Minor Crops

As a result of the FQPA, the IR-4 Project has taken a new approach to working with new pesticides. In the past, tolerances/registrations for new compounds would be obtained on major crops such as soybeans and corn by industry, then these pesticides were moved into the IR-4 program for residue analyses on minor crops. Several important herbicides for use in minor crops are slated for reassessment under FQPA. It is expected that some of these uses for minor crops maybe canceled. The product review deadlines mandated in the FQPA, and the impending loss of older products, necessitate evaluation and development of new materials for minor crops simultaneous with their development and registration on major crops.

Over the last several years the agricultural chemical industry has developed a range of new herbicide chemistries with lower environmental and health risks which should be rapidly made available to minor crop growers. Many of them offer great promise to fill the weed management voids expected from the potential cancellation of herbicide uses associated with the FQPA. In most cases, the usefulness of these new herbicides in minor crops is still unknown. Submission of Pesticide Clearance Requests without well-tested phytotoxicity data may result in delays in registration of new herbicides as many chemical manufacturers require crop tolerance data prior to registration. Therefore, researchers are encouraged to explore the tolerance of minor crops to new chemistries in advance of registration on the major crops. Although this is being done to some extend on the local level, there is a need for more involvement and better coordination of these programs across the United States to obtain valuable preliminary performance data on a wide range of environmental and soil conditions.

To address this issue members of the WSSA Herbicides for Minor Uses Committee and IR-4 organized a meeting of weed scientists during the USDA/IR-4 Food Use Workshop that was held in Denver, Colorado this past August. There was a general discussion among weed scientists about ongoing herbicide screening program, future needs, the most vulnerable crops, potential uses of old and new chemistry, and how to better coordinate a screening program and pursue various funding opportunities.

All participants agreed that there is a need for more coordination in order to obtain valuable information on potential uses of new chemistry and reduced risk herbicides, as well as, new uses of old herbicides, prior to the decision making process for field residue trials. Information on crop tolerances and weed efficacy in minor crops will be used to speed the process of herbicide registration for the most vulnerable crops. However, currently, there is little funding and effort to do widespread screening of the new herbicides.

Weed scientists at the meeting enthusiastically supported IR-4 initiatives and efforts to be more involved in a nationwide herbicide screening program. Marija Arsenovic at IR-4 Headquarters will coordinate the program in minor crops and collect data from researchers already involved. The data will be collected, compiled and prepared in tables and provided for discussions at the next WSSA Herbicides For Minor Crops Committee Meeting scheduled for February of 2000 (at the National WSSA meeting). If you have data that would support herbicide registrations on minor crops or would like more information regarding this program please contact Marija Arsenovic at 732/932-9575 ext. 609 or e-mail her at arsenovic@aesop.rutgers.edu.

Article by Marija Arsenovic and David Monks

Call for Newsletter Articles - Schedule

Issue	Call for Articles	Articles Due COB*
30:4	2 DEC 99 (Thursday)	9 DEC 99 (Thursday)

* Close of Business 1630, Eastern Time

Next Newsletter

- **Risk Assessment and OPs - Progress!**
- **Holiday Greetings and the Millennium Celebration Issue with the New IR-4 Reporting**
- **Awards**

Herbicide News: 11th EWRS (European Weed Research Society) Symposium, Basel, 1999

The 11th European Weed Research Society Symposium was held in Basel, Switzerland, June 28 to July 1, 1999. The Symposium provided a forum for scientists to present their work on a broad range of weed science topics. More than 200 weed scientists participated in the Symposium. Attendees were from Europe, Australia, China, Africa and the USA. The Symposium was organized in six sessions and several workshops.

The six sessions included Weed Biology, Weed Ecology, Biological Weed Control, Physical and Cultural Weed Control, Herbicide Behavior in Soil and Water, and Chemical Weed Control. The sessions included many excellent papers especially one that addressed the future trends of natural products as a source of new herbicides.

Several workshops were scheduled during the Symposium: Field Margin Interactions, Crop/Weed Interactions, Weed Seedbanks, Weed Management in Orchards and Weed Management Systems in Vegetables.

" Weed Management Systems in Vegetables" workshop. A working group (WG) was established to improve integrated and organic weed management in vegetables. The purpose of the working group are for - collecting and disseminating information and results on weeds and weed control strategies in vegetables; identifying gaps in knowledge; focusing on new research projects; and encouraging collaborative research programs. The results of the WG are published on the Web for use by researchers, crop extension services, farmers and policy makers in all European countries. Members of the WG are scientists from 20 European countries and 2 from United States. The Working Group leader and Newsletter editor is Dr. Francesko Tei, University of Perugia, Italy.

This year's meeting agenda focused on weeds and weed management in tomatoes and onions; next year's topic is on weed management in carrots. Also, discussion was initiated on developing more joint research projects (similar to ongoing cooperative research project with IR-4 and Germany) to support minor crop herbicides registrations in different European countries and the United States that will benefit both parties. The idea was well received. Another project was proposed and discussed which concerned the current status of herbicides in minor crops in different countries. Working group members agreed to exchange information. Please contact Marija Arsenovic (732-932-9575 ext. 609) for more details.

Overall, working group members concluded that there is a need for better coordination and information flow among weed scientists in Europe and other parts of the world, especially the United States.

Article by Marija Arsenovic

1999 IR-4 Service Awards

At the 1999 IR-4 Annual Meeting in Washington, DC, service awards were presented as follows:

Meritorious Service Award

- J. Ray Frank of IR-4 for outstanding management of the National Ornamentals Program.
- Bernard A. Schneider of US EPA for outstanding leader ship and expertise in crop groupings, standardize vocabulary and international harmonization.
- Alvin M. Simmons of USDA-ARS for outstanding contributions for field trials.
- Christine Vandervoort of Michigan State University for dedication in promoting GLP's.
- Inga-Mai Larsson-Kovach of Cornell University for exceptional performance in laboratory improvement.
- Peter B. Schultz of Virginia Tech for success in developing registration data for the plant industry.
- Robert McReynolds of Oregon State University for meritorious service in conducting field trials and supporting IR-4.

Continued on Page 38

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Acerola	Azoxystrobin	7742	PR
Almond	Hydramethylnon	7668	CA
Apple	Buprofezin	7516	TN,TX
	Cyprodinil + Fludioxonil	7597	CA
	Fluroxypyr-Methyl	7706	NC,SC, GA,WA,TN
	Isoxaben	7603	WA
	Thiazopyr	7725	MI,TN
Apple (PH)	Fenhexamid	7601	CA
	Fludioxonil	7568	WA
Apricot, Nectarine	Fluroxypyr-Methyl	7712	WA
Artichoke	Oxyfluorfen	7579	OR
Atemoya	BAS 500	7497	FL
Avocado	Buprofezin	7740	FL
Barley	Fenpropathrin	7667	ID
	Pymetrozine	7672	ID
Bean	Azoxystrobin	7550	AR,NY
Bean (Dry)	Bifenthrin	7657	WA,CO,ID
	Methoxyfenozide	7530	HQ
	Tebuconazole	7609	NY
	Thiamethoxam	7675	MN,CO,MI
	Trifloxystrobin	7612	NY
	Zinc Phosphide	7736	OK,GA
Bean (Lima)	Sulfentrazone	7583	TN

Commodity	Pesticide	PR#	State(s)
Bean (Snap & Dry)	Cyprodinil + Fludioxonil	7614	NY
Bean (Snap)	Buprofezin	7660	TX
	Fluazinam	7602	NY
	Imazapic	7483	TX
	Methoxyfenozide	7532	TN
	Thiazopyr	7470	TX
	Trifloxystrobin	7611	NY
Bean (Succulent)	Methoxyfenozide	7531	TN,OR
	Thiamethoxam	7589	MI,NY, CO,MN
Beet (Garden)	Azafenidin	7686	NY,OR
	Bifenthrin	7556	FL,WI
	Esfenvalerate	7509	OK,VA MH,TX
	Fludioxonil	7458	TX,ON,BC
	Thiamethoxam	7467	TX
Beet (Sugar)	Dimethenamid	7702	ID
	Methoxyfenozide	7522	TN,ID,CO, CA,WA,OR
Beet Greens	Metolachlor	7486	TX,TN
Blueberry	Harpin	7635	MI
	Rimsulfuron	7720	ME
	Serenade	7636	OR,MI
Blueberry (Highbush)	Imidacloprid	7669	MI
	Methoxyfenozide	7671	MI

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Brassica (Cole Leafy Vegetables	Dimethomorph	7620	CA
Broccoli	BAS 500	7493	TX,TN,CA, OR,MI,NC
	Sulfentrazone	7724	AZ
	Thiamethoxam	7460	TX
	Zoxamide	7591	AZ
Cabbage	Azafenidin	7448	TX
	BAS 500	7494	TX,TN,MI, NC
	Carfentrazone-ethyl	7445	TX
	Cyfluthrin + Tebupirimphos	7560	TX,CO,TN
	Thiamethoxam	7459	TX,NY,TN, OR,CO
Caneberry	Azafenidin	7684	NC
	Harpin	7633	MI
	Imidacloprid	7523	CA,NC, WA,OR,PA
	Indoxacarb	7572	NC
	Serenade	7634	MI
Canola	Methoxyfenozide	7534	HQ
Cantaloup	BAS 500	7626	TN,MI
	Bifenazate	7510	NJ,TX,WI
	Fenamidone	7630	TN,MI
	Fludioxonil	7455	TX
	Fludioxonil	7618	CA,OR

Commodity	Pesticide	PR#	State(s)
Cantaloup	Pyrithiobac	7538	TX,CO
	Rimsulfuron	7721	AZ
	Thiamethoxam	7464	TX
	Thiazopyr	7476	TX
	TM 210	7648	MI
	Zoxamide	7651	MI
Carambola	BAS 500	7498	FL
Carrot	Azafenidin	7685	NY
	BAS 500	7631	MI
	Fludioxonil	7457	TX
	Methoxyfenozide	7520	CO,OR
	Tebuconazole	7616	NY
	Thiamethoxam	7468	TX,CA,OR, WA,CO
Cauliflower	Thiamethoxam	7461	TX
Celeriac	Bensulide	7692	CA
Celery	BAS 500	7642	CA,OR,MI
	Fluroxypyr-Methyl	7708	WA
	Thiamethoxam	7673	IR,OR,WA, WI,MI
	Thiazopyr	7728	MI
Cilantro	Bifenthrin	7557	TX,CO
	Clethodim	7693	CO
	Ethofumesate	7704	OH
Citrus (PH)	Azoxystrobin	7593	CA

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Citrus (PH)	TM 417	7608	CA,TX
Citrus Fruit Group	Hydramethylnon	7734	AZ,CA
Clover (Seed)	Imazamox	7714	CA
Collard	BAS 500	7495	SC,TN,NC
	Bifenthrin	7554	AR,TX
	Cyfluthrin	7564	AR,OK
	Trifloxystrobin	7544	TX
Coriander	Azoxystrobin	7541	TX
	Tebuconazole	7542	TX
	Trifloxystrobin	7546	TX
Corn (Sweet)	Bay Foe 5043 + Metribuzin	7682	OH
	Imidacloprid	7605	NY
	Oxyfluorfen	7606	CA
	Thiamethoxam	7610	NY
Cucumber	BAS 500	7625	TN,MI
	Bifenazate	7511	NJ,TX,WI, ON,QC
	Cyprodinil + Fludioxonil	7655	NC
	Fenamidone	7628	TN,MI
	Fludioxonil	7454	TX
	Pyrithiobac	7536	TX
	Quinoxyfen	7654	NC
	Thiamethoxam	7463	TX

Commodity	Pesticide	PR#	State(s)
Cucumber	Thiazopyr	7478	TX
	TM 210	7647	MI
	Zoxamide	7650	MI
Cucurbits	Myclobutanil	7576	NJ
Dill	Ethofumesate	7703	OH
Dill (Seed)	Methoxyfenozide	7533	HQ
Filbert	Fluroxypyr-Methyl	7713	WA
	Spinosad	7681	OR
Flax	Clethodim	7558	ND
	Deltamethrin	7666	ND
	Sulfentrazone	7584	ND
Garbanzo	Clethodim	7559	ND
	Sulfentrazone	7586	ND,AZ
	Thiamethoxam	7615	ID
Grape	Fluroxypyr-Methyl	7711	WA
	Hydramethylnon	7735	CA
Grapefruit	NAA	7578	FL
Grapefruit (EUP)	Arsanilic Acid	7683	FL
Grasses	Methoxyfenozide	7524	HQ
Greens (Mustard)	Azafenidin	7551	AR
	BAS 500	7595	TN,MI,NC
	Cyfluthrin	7563	AR,OK,TN

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Greens (Mustard)	Cyprodinil + Fludioxonil	7622	TN
	Halosulfuron	7571	AR
	Sulfentrazone	7581	AR
Guar	Imazamox	7715	TX
	Thifensulfuron-Methyl	7730	TX
Guava	BAS 500	7499	FL
	Imidacloprid	7738	FL
Hops	Carfentrazone-Ethyl	7596	WA
Horseradish	Carfentrazone-Ethyl	7505	WI
Kale	Bifenthrin	7555	AR,TX
	Cyfluthrin	7565	AR,OK
Kiwifruit	Cyprodinil + Fludioxonil	7639	CA
	Fenhexamid	7600	CA
Kohlrabi	Clopyralid	7492	TX
Leek	Dimethenamid	7698	CA
Legume (Edible)	Imazamox	7717	WY
	Imazethapyr	7716	WY
Lentil	Bifenthrin	7659	ID
	Sulfentrazone	7582	ND
	Thiamethoxam	7617	ID
Lettuce (Head & Leaf)	Myclobutanil	7577	AZ,MI
	Zoxamide	7592	AZ,CA,WA

Commodity	Pesticide	PR#	State(s)
Lettuce (Head)	BAS 500	7640	CA,OR
	Clethodim	7694	TX,CA
	Glyphosate	7547	MI,OR
Lettuce (Leaf)	BAS 500	7641	CA,OR
Lime	BAS 500	7496	FL
Lychee	Buprofezin	7739	FL
Mango	BAS 500	7500	FL
Mayhaw	Bifenthrin	7513	LA
	Propiconazole	7514	TX
	Pyridaben	7515	LA
Mint (Fresh)	Pyridate	7487	FL
Okra	Methoxyfenozide	7741	FL
Olive	Pendimethalin	7607	CA
Onion	Azafenidin	7687	NY
	BAS 500	7632	MI
	Fludioxonil	7453	TX
	Ioxynil	7484	TX
	Sulfentrazone	7447	TX
Onion (Dry Bulb)	Carfentrazone-Ethyl	7446	TX
	Fluroxypyr-Methyl	7705	ID,OR
	Imidacloprid	7604	NY
	Thiamethoxam	7469	TX,WA,ID, OH,OR,CO

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Onion (Green)	Dimethenamid	7699	OR
	Thiamethoxam	7680	CA,OR, CO,NJ
Papaya	BAS 500	7501	FL
Parsley	Trifloxystrobin	7545	TX
Passion Fruit	BAS 500	7502	FL
Pea (Dry)	Bifenthrin	7658	ID
	Methoxyfenozide	7527	WA,TN
	Sulfentrazone	7585	ND
	Thiamethoxam	7590	ID
Pea (Edible Podded)	Methoxyfenozide	7529	TN
Pea (Southern)	Thiazopyr	7471	TX
Pea (Succulent)	Fosetyl-Al	7570	WA,OR
	Methoxyfenozide	7528	HQ
	Thiamethoxam	7676	MN,TN, CO
Peach	Buprofezin	7517	TN,CO
	Fluroxypyr-Methyl	7710	WA,NC
	Spinosad	7580	NJ
	Thiazopyr	7729	MI
Peanut	Diflubenzuron	7737	GA
Pear	Buprofezin	7518	TN,CO
	Cyprodinil + Fludioxonil	7598	CA,OR

Commodity	Pesticide	PR#	State(s)
Pear	Fluroxypyr-Methyl	7707	NC,SC, GA,WA
	Thiazopyr	7726	MI,TN
Pear (PH)	Fludioxonil	7569	WA,OR
Pecan	Abamectin	7743	FL
	Methoxyfenozide	7575	OK
	Thiamethoxam	7587	OK
Pepper (Bell & Non-Bell)	BAS 500	7624	TN,OH,NC
	Bifenazate	7552	TN,ON,QC
	Fenamidone	7623	TN,OH,NC
	Sethoxydim	7722	TN
Pepper (Bell)	Clomazone	7488	TX,TN,NC
	Fludioxonil	7449	TX
	Halosulfuron	7443	TX
	Pyrithiobac	7481	TX
	Thiamethoxam	7462	TX
	Thiazopyr	7473	TX
Pepper (Non-Bell)	Clomazone	7489	TX,TN,NC
	Fludioxonil	7450	TX
	Halosulfuron	7444	TX
	Pyrithiobac	7482	TX
	Thiamethoxam	7466	TX
	Thiazopyr	7472	TX

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Pistachio	Spinosad	7549	CA
Plum	Buprofezin	7519	TN,CO
	Fluroxypyr-Methyl	7709	WA
	Thiamethoxam	7674	MI
	Thiazopyr	7727	MI
Pome Fruits	Sethoxydim	7508	HQ
Potato	Cyfluthrin + Tebupirimphos	7665	NC
	Dimethenamid	7700	ND,CO, TN,ID
	Sulfentrazone	7723	ND,CO
Pumpkin	Pyrithiobac	7480	TX
	Thiazopyr	7477	TX
Radish	Dimethenamid	7695	OR
	Methoxyfenozide	7521	OR,CA, CO,TN,FL
	Thiamethoxam	7677	OR
Radish, Oriental	Bensulide	7690	CA
	Chlorpyrifos	7662	OR
	Thiamethoxam	7678	OR
Rice	Cyhalofop	7613	CA
	Methoxyfenozide	7526	HQ
Rutabaga	Azafenidin	7689	NY,OR
	Chlorpyrifos	7661	OR
	Dimethenamid	7697	OR

Commodity	Pesticide	PR#	State(s)
Rutabaga	Thiamethoxam	7679	OR
Sapote (Mamey)	BAS 500	7503	FL
Sorghum	Methoxyfenozide	7525	TX
Spinach	BAS 500	7643	CA,OR
	Cyfluthrin	7566	AR,OK
	Dimethenamid	7474	TX
	Fludioxonil	7451	TX,AR
	Linuron	7573	MD,TX
	Propiconazole	7621	TX
	Zoxamide	7485	TX,TN, CA,OH, NJ,NC
Squash	BAS 500	7627	TN,NC,MI
	Cyprodinil + Fludioxonil	7656	NC
	Pyrithiobac	7537	TX
	Quinoxyfen	7653	NC
	TM 210	7649	MI
	Zoxamide	7652	MI
Squash (Summer)	Bifenazate	7512	NJ,WI,TX
	Fenamidone	7629	NC,TN, OH,MI
	Fludioxonil	7456	TX
	Thiamethoxam	7465	TX
Stevia	Azoxystrobin	7646	CA
	Paraquat	7733	CA

New Food Use Requests Received and Assigned PR #s To 7743, Inclusive

Commodity	Pesticide	PR#	State(s)
Stevia	Pendimethalin	7718	CA
Stone Fruits	Sethoxydim	7507	HQ
Strawberry	BAS 500	7645	TN
	Harpin	7638	MI
	Myclobutanil	7539	NC
	Serenade	7637	MI,OH,NC
	Triflusulfuron-Methyl	7731	CA
Strawberry (Annual)	2,4-D	7732	NC
	Pendimethalin	7719	CA
Sugar Apple	BAS 500	7504	FL
Sweetpotato	Cyfluthrin + Tebupirimphos	7664	NC
	Dimethenamid	7701	NC,TN,TX
	Lambda-Cyhalothrin	7670	NC
Swiss Chard	Azoxystrobin	7540	TX
	Trifloxystrobin	7543	TX
Taro	Metaldehyde	7574	HI
Tomato	Fludioxonil	7452	TX
Tropical Fruit	Azoxystrobin	7491	FL
	Spinosad	7490	FL

Commodity	Pesticide	PR#	State(s)
Turnip (Roots & Tops)	Azafenidin	7688	NY,OR
Turnip (Roots)	Bensulide	7691	MD
	Dimethenamid	7696	OR
Turnip Greens	BAS 500	7594	TN,CO,NC
	Bifenthrin	7553	AR,TX
	Chlorpyrifos	7663	OR
	Cyfluthrin	7562	AR,OK
	Cypermethrin	7548	TX
	Dimethomorph	7599	TN,CO,NC
	Emamectin	7567	TX
Vegetables (Leafy)	Sethoxydim	7506	HQ
Walnut	Serenade	7644	CA
Watermelon	Cyfluthrin + Tebupirimphos	7561	TX
	Fludioxonil	7619	CA,OR
	Metolachlor	7479	TX
	Pyrithiobac	7535	TX
	Thiamethoxam	7588	TX
	Thiazopyr	7475	TX
Yam	Trifloxystrobin	7442	PR

Compiled by Diane Infante

Summary of IR-4 Minor Use Petitions and Petition Amendments Sent to *Industry* During the 3rd Quarter, 1999

Pesticide	Site	PR. NO.	Requesting State(s)	Petition Type	Manufacturer
Pirimicarb	Hop	1499	WA	Tolerance	ZENECA
Ziram	Tomato	C4089	FL, MS, TN, VA	Reregistration	ELF ATOCHEM, UCB
Cryolite	Caneberry	5792	OR, WA	Registration	GOWAN
Pirimicarb	Lettuce	898	CA, FL, OH, WA	Tolerance	ZENECA
Fludioxonil (Post-Harvest)	Stone Fruit	6933, 6934, 6943, A6934	CA, SC, GA, NJ	Tolerance	NOVARTIS
Esfenvalerate	Brussels Sprout	1656	NC, OK	Tolerance	DUPONT
Prometryn	Cilantro	1632	CA	Tolerance	NOVARTIS, UAP
Cyfluthrin	Southern Pea	5524	AL, AR, FL, GA, MI, OK, TX	Tolerance	BAYER
Chlorpyrifos	Onion (Dry)	3414	ID, OR, WA	Registration	DOW AGROSCIENCES

Compiled by Bill Biehn

Summary of IR-4 Minor Use Petitions and Petition Amendments Sent to *EPA* During the 3rd Quarter, 1999

Pesticide	Site	PR. NO.	Requesting State(s)	Petition Type	Date Sent
Bifenthrin	Lettuce (Head)	5279	AZ	Tolerance	6 JUL 99
Bifenthrin	Pepper	5280, 5281	CA,GA,MS,NC, OK,OR,TN,PR	Tolerance	6 JUL 99
Spinosad	Oats, Barley, Buckwheat, Rye, Pearl Millet, Grain Amaranth, Popcorn, Teosinte, Grass Forage, Fodder and Hay Crop Group, Non-grass Animal Feeds Crop Group, Water-cress, Turnip Tops, Cilantro, Tropical Fruits	7269, 7349, 6686, 7083, 7027, 7082, 6685, 6675, 7080, 7081, 7068, 7084, 7379, 7276, 6687, 7490	FL,OH	Tolerance	13 JUL 99
Bifenthrin	Caneberry	A5004	OR	Tolerance	15 JUL 99
Imidacloprid	Cilantro	6396	FL,TX	Tolerance	21 JUL 99
Fenpropathrin	Cucumber	2502	CA,GA,TN	Tolerance	22 JUL 99
Fenpropathrin	Summer Squash	2507	CA,GA,TN	Tolerance	22 JUL 99
Tebuconazole	Turnip Greens	6234	GA,SC,TN,MS,OK	Tolerance	29 JUL 99
Tebuconazole	Hop	6672	ID,WA	Tolerance	30 JUL 99
Fludioxonil	Stone Fruit (Postharvest)	6933, 6934, 6943, A6934	CA,SC,GA,NJ	Tolerance	30 JUL 99

Summary of IR-4 Minor Use Petitions and Petition Amendments Sent to *EPA* During the 3rd Quarter, 1999

Pesticide	Site	PR. NO.	Requesting State(s)	Petition Type	Date Sent
Spinosad	Pistachio	7549	CA	Tolerance	4 AUG 99
Tebuconazole	Cucurbit Crop Group	5091, 5279, 5277, 6321, 5278	TX,GA,TN,SC,OR,CA,OK	Tolerance	2 AUG 99
Cryolite	Caneberry	5792, 5780, 5783, 5776, 5777, 5795	OR,WA	Registration	9 JUL 99
Pirimicarb	Lettuce	898, 6327	CA,FL,OH,WA	Tolerance	15 JUL 99
Ziram	Tomato	A4089, C4089	FL,MS,TN,VA	Reregistration	11 AUG 99
Zinc Phosphide	Blueberry	2958	GA,MI,MS,NH,OK,OR,PA	Tolerance	13 AUG 99
Metolachlor	Asparagus	1908	AR,MS,NJ,NY,NC,OK,OR, VA,WA	Tolerance	13 AUG 99
Ziram	Grape	4116, A4116	CA,NY,MI,PA,OH,KY,IN	Reregistration	27 AUG 99
Mefenoxam	Artichoke, Carambola, Kiwifruit, Papaya, Black Sapote, Caimito, Canistel, Mamey Sapote, Mango, Sapodilla, Sugarapple, Sweetsop, Atemoya, True Custard Apple, Lingonberry	A4939, A3050, A4940, 5184, 5904, 4979	CA,FL,WI	Tolerance	30 AUG 99

Summary of IR-4 Minor Use Petitions and Petition Amendments Sent to *EPA* During the 3rd Quarter, 1999

Pesticide	Site	PR. NO.	Requesting State(s)	Petition Type	Date Sent
Prometryn	Cilantro (CA Only)	1632	CA	Tolerance	3 SEP 99
Esfenvalerate	Brussels sprout (Except CA)	1656	OK,NC	Tolerance	9 SEP 99
Clomazone	Tanier, Cassava, Yam, Arracacha	5371 5372 5373	PR	Tolerance	13 SEP 99
Zinc Phosphide	Caneberry	2957	NH	Tolerance	8 APR 99
Pyridaben	Strawberry	6902	CA,NC	Tolerance	29 SEP 99
Phospholipid (LPE-97 LPE-98S)	Selected Crops	85B	WI	Experimental Use Permit Label Amendment	22 SEP 99

Compiled by Bill Biehn

Communications 1

IR-4 SAES / ARS / REGIONAL LIAISON REPRESENTATIVES

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Ms. Denise Snook (4)	Reg. QA Coor.	(315) 787-2411	(315) 787-2397
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Mr. Samuel Fernando (9)	Reg. QA Coor.	(352)392-1978/419	(352) 392-1988
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Dr. William Nesmith (9)	KY	(606) 257-3991	(606) 323-1961
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Dr. Ross B. Leidy (10)	NC	(919) 515-3391	(919) 515-5462
Mr. Marty New (5)	OK	(405) 744-5526	(405) 744-6039
Dr. Nilsa M. Acin (10)	PR	(787) 756-6733	(787) 758-5158
Dr. Robert G. Bellinger (5)	SC	(864) 656-5042	(864) 656-5065
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Dr. Rodney L. Holloway (5)	TX	(409) 845-3849	(409) 845-6251
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Dr. David Walgenbach (5)	MN	(507) 835-3620	(507) 835-3622
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Mr. Jim McFarland (4)	Reg. QA Coor.	(530) 752-3496	(530) 752-3394
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Mrs. Margaret Reiff (2)	CA	(530) 752-7633	(530) 752-2866
Dr. Sandra McDonald (13)	CO	(970) 491-6027	(970) 491-3862
Dr. Ross Miller (5)	Guam	(671) 735-2141	(671) 734-4600
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Dr. Jeff Jenkins (12)	OR	(541) 737-5993	(541) 737-5001
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SPECIALTY AREA KEY

(1)	Biochemist	(6)	Horticulturist	(11)	Soil Scientist
(2)	Biologist	(7)	Nematologist	(12)	Toxicologist
(3)	Botany / Plant Scientist	(8)	Pesticide Coordinator	(13)	Weed Scientist
(4)	Chemist	(9)	Plant Pathologist		
(5)	Entomologist	(10)	Residue Chemist		

10/18/99

Communications 2

IR-4 SAES / ARS / REGIONAL LIAISON REPRESENTATIVES (e-mail)

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SPECIALTY AREA KEY

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(2)	Biologist
(3)	Botany / Plant Scientist
(4)	Chemist
(5)	Entomologist
(6)	Horticulturist
(7)	Nematologist
(8)	Pesticide Coordinator
(9)	Plant Pathologist
(10)	Residue Chemist
(11)	Soil Scientist
(12)	Toxicologist
(13)	Weed Scientist

NOTE:
1 = number one
I = lower case letter L

10/18/99

Center for Minor Crop Pest Management
IR-4 Headquarters

Communications 3

Web Site: Http://www.cook.rutgers.edu/~ir4

FAX No. 732-932-8481

Telephone Extensions - IR-4 Direct

The following is a list of telephone extensions for Headquarters personnel.

732-932-9575

Name	Extension
Marija Arsenovic	609#
Jerry Baron	605#
Bill Biehn	603#
Josh Brashier	624#
Michael Braverman	610#
Johannes Corley	611#
Keith Dorschner	615#
Cheryl Ferrazoli	601#
Kathryn Hackett-Fields	619#
Bob Holm	604#
Diane Infante	620#
Dan Kunkel	616#
Betty Lovuolo	617#
George Markle	606#
Jack Norton	612#
Laurie O'Reilly	608#
Fred Salzman	625#
Ken Samoil	614#
Pat Sarica	618#
Van Starner	621#
Judy Streisand	600#
David Thompson	613#
Tammy White	607#

Note: Press "*8" for voice mail options. For example, to transfer from one extension to another, press *8, then enter the three digit extension followed by the # sign.

E-Mail Addresses

The following are the E-Mail addresses for the Headquarters personnel:

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Sandy Perry, National Outreach Specialist
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Willis B. Wheeler, Government Liaison
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Washington, DC 20460

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E-Mail: wheeler.willis@epa.gov
Also, he can be contacted at 301-215-9216 (please call before faxing) and at wbw@erols.com

10/8/99

Communications - 4

(phone/fax/e-mail not listed elsewhere in the Newsletter)

Name	Phone	FAX	E-Mail
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J. Holmdal	(215) 592-3497	(215) 592-2797	rhajah@rohmhaas.com
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P. Schwartz	(301) 504-8256	(301) 504-8142	schwartz@asrr.arsusda.gov
N. Thompson	(352) 392-1978 x 406	(352) 392-1988	npt@gnv.ifas.ufl.edu

1999 IR-4 Service Awards

Continued from Page 23

Outstanding Technical Service Award

- Greg Moore for meritorious service as research technician at Tifton, GA.
- Mark G. Ciernia for exemplary research in the needed herbicide registrations for minor crops grown in North Dakota.
- Martha M. Sylvia for outstanding accomplishments as head research technician at the Massachusetts Cranberry Station.
- Lori Lynn Gregg for exemplary service in executing field trials in compliance with GLP's at Texas A&M University.
- Brent E. Boutwell of the University of California for dedication in conducting field trials and exemplary representation of the goals of IR-4.

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_____ **Change of address (Please attach old mailing label address)**

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