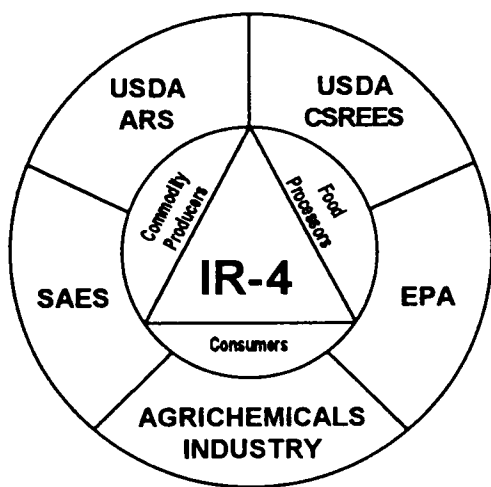

ANNUAL REPORT 1995



**A NATIONAL AGRICULTURAL
PROGRAM TO CLEAR
PESTICIDES AND BIOLOGICAL
PEST CONTROL AGENTS FOR
MINOR USE**

**INTERREGIONAL RESEARCH
PROJECT NO. 4**

ANNUAL REPORT OF THE IR-4 PROJECT (NRSP-4/IR-4)

January 1, 1995 - December 31, 1995

INTRODUCTION

Interregional Research Project No. 4 (IR-4 Project) was organized in 1963 by Directors of the State Agricultural Experiment Stations (SAES) to obtain residue tolerances for minor use pesticides on food and feed crops where economic considerations precluded private sector registration. Since its inception, IR-4 has been administered by USDA-CSREES. In 1976, USDA-ARS established a companion minor use program to provide further support for the minor use effort. The objectives of the IR-4 Project were expanded in 1977 to include the registration of pesticides for protection of nursery and floral crops, forest seedlings and turf grass; and again in 1982 to include an initiative to register biological pest control agents (biopesticides) for agricultural pest control.

While the basic mission of IR-4 has always been to aid producers of minor food crops and ornamentals in obtaining needed crop protection products, the focus of the program has changed over the years. The 1988 Amendments to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) presented IR-4 with the challenge of defending existing pesticide registrations needed by commodity producers but not supported by commercial registrants for economic reasons. Based on inputs from both the public and private sector, IR-4 developed a plan to reregister up to 1000 existing minor use registrations while continuing the ongoing program of new food and ornamental clearances. IR-4 will accomplish its current reregistration commitments by the December 1997 Congressionally-mandated deadline.

IR-4 continues its commitment to aid in the development and clearance of biologically based alternatives for pest management on minor crops. The objectives of the biopesticide program have been extended to include not only microbials and biochemicals but also transgenics and "safer" pesticides for use on minor crops. IR-4 has earmarked funds to support research in this area and efforts are moving forward to form coalitions with public and private sector individuals and organizations in order to leverage funding.

Research to develop registration data for ornamental crops continues both as an important and successful IR-4 programmatic thrust. Opportunities exist to serve the industry by facilitating the registration of new pesticides, especially those that are worker friendly, and biological alternatives which will achieve effective pest control when used alone or in IPM systems.

IR-4 has updated its strategic plan developed in 1989 by establishing program goals that address both grower needs and advance effective, environmentally-sound pest management practices on minor crops. Entitled "*A Minor Crop Pest Control Strategy: 1995-2002*", this plan calls for a greater emphasis on the registration of alternative pest control technology for minor crops.

This Annual Report highlights progress in 1995 toward achieving the objectives of the program to provide crop protection for the \$31 billion U.S. minor crop industry.

PROJECT:

National Research Service Project No. 4 (NRSP/IR-4). A National Agricultural Program to Clear Pest Control Agents for Minor Uses. January 1, 1995 to December 31, 1995.

COOPERATING AGENCIES AND PRINCIPAL LEADERS:

Cooperating agencies, principal leaders of the project, support groups and IR-4 State and Federal Liaison Representatives are shown in Attachment 1. Scientists participating in the project are shown in Attachment 2.

PROGRESS OF WORK AND PRINCIPAL ACCOMPLISHMENTS:

FOOD USE RESEARCH PROJECTS:

There are currently 6479 IR-4 food-use requests, an increase of 199 over the 6280 requests reported in 1994. Of these, 1218 are researchable projects with 904 representing requests for new uses and 314 representing reregistration requests. SAES and USDA-ARS cooperators scheduled research on 177 requested clearance projects (studies) which represented 483 field trials coordinated by IR-4 Regional Laboratories. Residue samples from 458 field trials went to SAES and USDA-ARS, contract and agrichemical laboratories. Research protocols were prepared or revised for each study as required by EPA Good Laboratory Practice Standards. The pesticides/commodities researched in 1995 are shown in Attachment 3.

FOOD USE REGULATORY ACCOMPLISHMENTS:

The IR-4 Project was responsible for 104 minor use pesticide clearances in 1995. Fifty-three (53) of these were for new tolerances and exemptions, 39 were tolerance extensions through crop groupings and 12 were data packages supporting label amendments and reregistration projects accepted by EPA or state regulatory agencies. Following is a report of successfully completed projects.

New Tolerance, Exemption and Reregistration Approvals

During the year EPA published 28 Federal Register notices and reregistration eligibility letters establishing 53 new tolerance and exemptions and 3 reregistration approvals. Label amendments accounted for 9 new uses. These are shown in Attachment 4.

Crop Group Definition Approvals

EPA crop group definitions provide for the extension of tolerances or exemptions for a pest control agent from a crop to other closely related crops [see 40 CFR 180.1(h)]. IR-4 petitions to expand crop definitions substantially leverage the number of pest control options available to producers of minor crops. In 1995, EPA approved crop group definitions representing 39 new uses. These are shown in Attachment 5.

REGULATORY PROGRESS:

The clearance of a pesticide or biological control agent can be a lengthy process, sometimes taking five or more years. Following is a report of progress in obtaining future registrations and reregistrations.

Tolerance Approvals Proposed

In addition to tolerances and exemptions approved by EPA in 1995 in response to IR-4 petitions, 8 proposals for tolerances have been published for comment in the Federal Register and should become rules in 1996. These are shown in Attachment 6.

EPA Responses to IR-4 Petitions

EPA provides valuable assistance to IR-4 by reviewing all researchable projects before initiation of research. Nevertheless, some data concerns may not be revealed until the actual crop tolerance petition is submitted. In 1995, IR-4 received responses from EPA to 9 petitions requesting additional data and/or information. These are shown in Attachment 7.

Data Package Development

During 1994, IR-4 worked on 109 regulatory data packages which are presently under review by registrants or EPA. These include 48 new tolerance petition requests, 33 data packages to support reregistrations, 13 major amendments to prior submitted data packages, and 15 packages to support label expansions. These are shown in Attachment 8.

Regulatory Documents in Preparation

Regulatory packages representing 159 new uses and reregistrations are currently in various stages of preparation. These are shown in Attachment 9.

ORNAMENTAL RESEARCH AND REGISTRATIONS:

Since the beginning of the IR-4 ornamental program, 12,109 Pesticide Clearance Requests have been received. There are presently 1141 researchable ornamental requests including 282 new requests added in 1995. IR-4 funded 443 ornamental research trials this year and prepared 19 registration packages containing 723 reports that were sent to registrants for labelling. These included 9 fungicides, 3 insecticides, 6 herbicides and 1 plant growth regulator. During the year, industry labelled 377 ornamental uses based on IR-4 data. These are shown in Attachment 10.

BIOPESTICIDE RESEARCH AND REGISTRATIONS:

In 1995, IR-4 supported nine research projects: pepper extract field trials on minor crops to control insects; *Alternaria* spp. and *Fusarium tricinctum* for the control of dodder on cranberries; *Beauveria bassiana* for control of citrus root weevil larvae; development and evaluation of recombinant viruses as biological insecticides; *Entomophaga maimaiga* for the control of gypsy moth; *Bacillus cereus* for the control of alfalfa diseases; *Flavobacterium balustinum* and *Trichoderma hamatum* fortified potting mixes for control of damping off and root rot pathogens of vegetable bedding plants and ornamentals; *Paecilomyces fumosoroseus* for control of insects on greenhouse cuttings; and *Pseudomonas fluorescens* PRA25 and *Burkholderia cepacia* for control of soilborne diseases of peas, snap beans and sweet corn. Also, EPA approved the following tolerance exemptions based on IR-4 petitions: methyl anthranilate as a bird repellent on blueberries, cherries, and grapes; codling moth granulosus virus for apple, pear, walnut, and plum (prune); and cinnamaldehyde on mushrooms for the control of *Verticillium* spot and dry bubble disease. In 1995, IR-4 submitted five biopesticide petitions to EPA or industry requesting exemptions from the requirement of a tolerance. These are shown in Attachment 11.

QUALITY ASSURANCE:

The IR-4 Project's Quality Assurance Unit (QAU) continues to provide assistance to cooperating scientists throughout the United States and Puerto Rico. Quality Assurance Officers (QAO's) have been conducting on-site facility inspections and in-life critical phase inspections to identify if compliance has been met or if attention is required for the research to comply with the Good Laboratory Practice Standards 40 CFR 160 (GLPs). All QA findings and recommendations are reported to the study directors and management as required by the GLPs.

The IR-4 QAU is comprised of regional QA staff located at each of the Leader Laboratories, university cooperating QAO's, USDA-ARS laboratory and field QAO's and Headquarters personnel. The IR-4 QAU functions under a set of Standard Operating Procedures (SOPs) by which it maintains consistent monitoring activities of IR-4 GLP research studies. National and required QA training sessions for field and laboratory personnel were conducted during the year.

PROGRAM COOPERATION AND COORDINATION:

The IR-4 Project has been cited as a "prime example of Federal interagency cooperation with academic institutions, pesticide industries and commodity interest groups to meet effectively the growing need for registration and reregistration of safe pesticides for minor crops".

Indicative of the cooperative nature of the IR-4 Minor Use Program, 288 food use field trials were scheduled by SAES cooperators, 131 by federal agricultural scientists and 39 by private sector researchers in cooperation with IR-4.

IR-4 is actively involved in the USDA-CSREES Interagency Reregistration Task Force, the USDA Minor Use Working group and is a participant in the ESCOP Pest Management Strategies Subcommittee, American Crop Protection Association Regulatory Sub-Committee and the Canada-United States Trade Agreement Technical Working Group on Pesticides.

A meeting of the IR-4 Commodity Liaison Committee (CLC) was held coincident with the IR-4 Annual Meeting in March. Representatives of the CLC attended each IR-4 Regional Liaison meeting in 1995 and the chair of the CLC met with the IR-4 Technical Committee.

A joint USDA IR-4/EPA Minor Use Biopesticide Workshop was held in Washington, DC in November. In addition to speakers from both the public and private sector, conference attendees were addressed by the Deputy Secretary of Agriculture. A National Food Use Workshop was attended by 120 public and private sector research personnel. This was the 18th in a series of food and ornamental workshops held by IR-4 for the purpose of reviewing and prioritizing new clearance requests and reregistration needs.

USEFULNESS OF THE FINDINGS:

IR-4 is the principal public effort supporting the registration of pesticides and biological pest control agents for use on minor crops. The program has been responsible for data to support 2074 food use clearances (1127 since 1984), 3602 ornamental registrations and has supported research on 26 biopesticides which has resulted in 18 minor use registrations.

IR-4 relies on commodity producers, state and federal research scientists and extension personnel to submit pest control needs important to the agricultural community. These needs are evaluated by industry registrants and EPA and are prioritized for purposes of research by regional and national committees of agricultural specialists. IR-4 provides coordination, funding and scientific guidance for both field and laboratory research to develop data for the registration by the EPA of pest control products on a wide variety of commodities. All IR-4 research is carried out according to EPA approved Good Laboratory Practice Standards. Without assistance from the IR-4 Project, few safe and effective pesticides and biological alternatives would be available for use on minor crops.

WORK PLANNED FOR 1996:

IR-4 will continue its mission to clear safe and effective pest control products for minor food crops and ornamentals. An updated Strategic Plan for the period 1995-2002 has been developed by the IR-4 Technical Committee which outlines annual productivity and funding goals for the three IR-4 thrust areas: registration/reregistration research, biopesticide research and ornamentals research.

Based on priorities established by regional and national workshop committees, 144 food use projects were selected for research in 1996 at the November IR-4 national research planning meeting. The 1996 research program will enable IR-4 to complete about 100 clearance projects. The major emphasis is to reregistration and the program expects to accomplish its current reregistration commitments by December 1997.

Eighteen proposals have been submitted to the IR-4 Biopesticide Program for funding in 1996. Two proposals from 1995 will receive a second year of funding and other projects will be chosen from the new proposals as finances permit. Four Experimental Use Permits and their associated temporary tolerance exemption petitions will be prepared for submission to EPA. Three exemptions from tolerances to support full registrations will also be submitted to the Agency. The Biopesticide Program will continue to seek out new projects and move forward on registrations for minor use crops. Presentations about the IR-4 Biopesticide Program will be given at the Third National IPM Symposium/Workshop in Washington, DC on February 29.

IR-4 will continue to address pest control needs of the \$8 billion nursery, floral crop, interior landscape, and landscape industry. IR-4 will support research on 350 pesticides and biopesticides in 1996 and submit completed research reports supporting about 200 new registrations.

IR-4 will continue its commitment to producing quality scientific data in order to meet EPA Good Laboratory Practice requirements. IR-4 will continue to hold quality training sessions for IR-4 personnel and cooperators, conduct facility and in-life inspections and review raw data and final reports.

PUBLICATIONS:

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Markle, G.M. 1995. *IR-4 Newsletter*. NJAES No. P-27200-01-95. 26(1): 18 pp.

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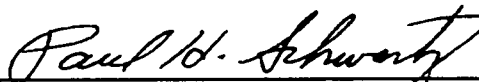
December 31, 1995



R.T. Guest, National Director
IR-4, Cook College, Rutgers - The State University
of New Jersey

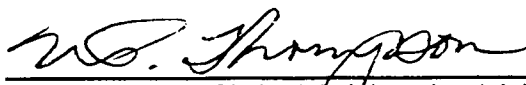
Approved:

1/22/96



P.H. Schwartz, Chair, Technical Committee
Staff Scientist, Office of Minor Use Pesticides
USDA-ARS

1/23/96



N.P. Thompson, Chair, Administrative Advisers
University of Florida

ATTACHMENT 1

COOPERATING REGULATORY AGENCIES

U.S. Department of Agriculture, Agricultural Research Service
U.S. Department of Agriculture, Animal and Plant Health Inspection Service
U.S. Department of Agriculture, Cooperative State Research Education and Extension Service
U.S. Environmental Protection Agency, Office of Prevention, Pesticides and Toxic Substances

PRINCIPAL LEADERS

Administrative Advisors:

Dr. W. Carlson, *U.S. Department of Agriculture*
Dr. F. Horn, *U.S. Department of Agriculture*
Dr. A. Lauchli, *University of California, Davis*
Dr. D. Lund, *Cornell University*
Dr. N. Thompson, *University of Florida, Chair*
Dr. R. Wyse, *University of Wisconsin*

Representing

USDA-CSREES
USDA-ARS
Western Region
Northeast Region
Southern Region
Northcentral Region

Technical Committee:

Dr. R. Guest, *Rutgers University, National Director*
Dr. R. Hollingworth, *Michigan State University*
Dr. J. Parochetti, *U.S. Department of Agriculture*
Dr. P. Schwartz, Jr., *U.S. Department of Agriculture, Chair*
Dr. T. Shibamoto, *University of California, Davis*
Dr. T. Spittler, *Cornell University, Geneva*
Dr. C. Wei, *University of Florida*

IR-4 Headquarters
Northcentral Region
USDA-CSREES
USDA-ARS
Western Region
Northeast Region
Southern Region

SUPPORT GROUPS

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Dr. J. Baron, *National Coordinator*
Dr. W. Biehn, *Coordinator*
Dr. K. Dorschner, *Coordinator*
Mr. J. Frank, *Coordinator*
Dr. R. Guest, *National Director*
Ms. K. Hackett-Fields, *Project Assistant*
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Mrs. D. Infante, *Information Specialist*
Dr. D. Kunkel, *Coordinator*
Mr. R. Libby, *Coordinator*
Ms. E. Lurvey, *Coordinator*
Prof. G. Markle, *Associate Director*
Mr. K. Samoil, *Coordinator*
Mrs. P. Sarica, *Assistant Director for Administration*
Dr. D. Thompson, *Coordinator*
Ms. T. White, *Quality Assurance Coordinator*

Headquarters Support Staff:

Mrs. J. Eato-Griffin, *Sec.*
Mrs. C. Ferrazoli, *Sec.*
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The National Headquarters is located at the New Jersey Agricultural Experiment Station, Cook College, Rutgers-The State University of New Jersey, New Brunswick, NJ 08903-0231 (908) 932-9575; FAX: (908) 932-8481

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Dr. C. Wei, <i>Laboratory Director</i>	Southern Region
Dr. C. Meister, <i>Field Research Coordinator</i>	Southern Region
Ms. J. Yoh, <i>Laboratory Coordinator</i>	Southern Region
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Mr. R. Melnicoe, <i>Field Research Coordinator</i>	Western Region
Ms. M. Reiff, <i>Program Coordinator</i>	Western Region
Mr. C. Mourer, <i>Laboratory Coordinator</i>	Western Region

Consultants Committee:

Mr. G. Herndon, *EPA-OPP-HED*
Mr. J. Holmdal, *ACPA Representative*
Mr. H. Jamerson, *EPA-OPP-RD, Minor Use Officer*
Dr. B. Schneider, *EPA-OPP-HED*

Commodity Liaison Committee:

Mr. D. Ahrens, <i>Twin Garden Farms</i>	Harvard, IL
Dr. S. Balling, <i>Del Monte Foods</i>	Walnut Creek, CA
Dr. A. Bonanno, <i>Bonanno Farm Trust</i>	Methuen, MA
Mr. D. Botts, <i>Florida Fruit and Vegetable Association</i>	Orlando, FL
Mr. J. Downing, <i>Cranberry Institute</i>	East Wareham, MA
Dr. H. Ewart, <i>Northwest Horticulture Council</i>	Yakima, WA
Ms. A. George, <i>Washington Hop Commission</i>	Yakima, WA
Dr. C. Kesner, <i>Cherry Marketing Institute</i>	Okemos, MI
Mr. T. Kodet, <i>Grower Shipping Vegetable Association</i>	Salinas, CA
Mr. E. Kurtz, <i>EAK Ag., Inc.</i>	Salinas, CA
Mr. R. Lundy, <i>Mint Industry Research Council</i>	Hood River, OR
Mr. G. Obenauf, <i>Prune, Raisin and Walnut Marketing Boards</i>	Fresno, CA
Mr. R. Olszack, <i>Brooks Tropicals</i>	Homestead, FL
Mr. R. Prewett, <i>Texas Vegetable Association</i>	Mission, TX
Mr. R. Ratto, <i>Ratto Brothers</i>	Modesto, CA
Mr. S. Rawlins, <i>American Farm Bureau Federation</i>	Park Ridge, IL
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IR-4 Project/USDA Minor Use Program Quality Assurance Officers

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Ms. D. Snook	NY
Mr. G. Hanes, USDA-ARS	MD

Southern Region

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Mr. J. Gefre, Sr., USDA-ARS	WA
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Mr. J. Kam	HI
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Dr. R. Parker, IV, USDA-ARS	WA
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Dr. J. Locke, USDA-ARS	MD
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Dr. D. Rutz	NY
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Dr. C. Krause, USDA-ARS	OH
Dr. R. Latin	IN
Dr. S. Miyazaki	MI
Dr. J. Nalewaja	ND
Dr. C. Starbuck	MO
Dr. B. Swanson	MN
Dr. H. Taber	IA
Dr. A. Waldron	OH
Dr. L. Wax, USDA-ARS	IL
Dr. J. Wedberg	WI
Dr. D. Williams	IL
Dr. L. Wrage	SD

State and Federal IR-4 Liaison Representatives (continued):

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Dr. R. Bellinger	SC
Dr. J. Criswell	OK
Dr. F. Eastin	GA
Dr. H. Harrison, USDA-ARS	SC
Mr. T. Hendricks, USDA-ARS	GA
Dr. R. Holloway	TX
Dr. A. Johnson, USDA-ARS	GA
Dr. M. Kurtz	MS
Dr. T. Lavy	AR
Dr. R. Leidy	NC
Dr. C. Meister	FL
Dr. A. Simmons, USDA-ARS	SC
Dr. C. Southards	TN
Dr. R. Story	LA
Dr. M. Weaver	VA
Dr. L. Weston	KY
Dr. G. Zehnder	AL
Vacant	VI

Western Region

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Dr. P. Baker	AZ
Dr. R. Boydston, USDA-ARS	WA
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Dr. J. Conn	AK
Dr. H. Deer	UT
Dr. M. English	NM
Dr. M. Ferrell	WY
Dr. J. Jenkins	OR
Dr. G. Johnson	MT
Dr. M. Kawate	HI
Dr. R. Linderman, USDA-ARS	OR
Ms. K. Morford, USDA-ARS	WA
Dr. R. Muniappan	GU
Ms. M. Reiff	CA
Dr. A. Schreiber	WA
Dr. J. Seiber	NV
Dr. H. Toba, USDA-ARS	WA

ATTACHMENT 2

FIELD AND LABORATORY RESEARCH COOPERATORS

The IR-4 Project is grateful to the many agricultural scientists who participated in the field and laboratory research phases of the program in 1995. Although their efforts frequently are unrecognized, their cooperation is the essential element in producing the data, field residue samples and laboratory analyses which meet EPA data requirements and conform to Good Laboratory Practice Standards. The continuing association with the minor use program of many state and federal scientists not only enhances the quality of the data but adds credibility that the objectives of the program will be met.

NORTHEAST REGION

Dr. J. Ahrens	CT	Dr. B. Lord	NH
Dr. A. Averill	MA	Dr. B. Majek	NJ
Dr. R. Bellinder	NY	Dr. R. Mumma	PA
Dr. E. Beste	MD	Mr. L. Rossell	NJ
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Dr. S. Johnston	NJ	Dr. D. Yarborough	ME
Dr. P. Kovach	NY	Dr. D. Young	NY
Dr. J. Linduska	MD		

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Dr. H. Hopen	WI	Dr. W. Stevenson	WI
Dr. C. Hoy	OH	Dr. M. Weiss	ND
Dr. J. Johnson	MI	Dr. S. Weller	IN
Dr. A. Jones	MI	Dr. R. Wright	NE
Dr. J. Koenig	WI	Dr. J. Wyman	WI
Dr. M. Lacy	MI	Dr. B. Zandstra	MI

SOUTHERN REGION

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Ms. L. Anderson	FL	Dr. W. Curry	FL
Mr. A. Armstrong	PR	Dr. J. Derr	VA
Dr. C. Averde	NC	Mr. G. Dixon	AL
Dr. R. Baranowski	FL	Dr. F. Easton	GA
Dr. D. Benson	NC	Mr. R. Ingles	PR
Dr. T. Bewick	FL	Dr. D. Johnson	AR
Ms. I. Cabrera	PR	Dr. F. Johnson	FL
Dr. J. Crane	FL		

SOUTHERN REGION (CONTINUED)

Dr. R. Johnson	FL	Mr. D. Remick	FL
Dr. A. Keinath	SC	Mr. R. Sanford	FL
Mr. F. Krupala	TX	Dr. G. Saxena	FL
Dr. M. Kurtz	MS	Ms. S. Scherer	FL
Dr. M. Lamberts	FL	Dr. P. Schultz	VA
Dr. T. Lavy	AK	Mr. J. Scott	FL
Dr. R. Leidy	NC	Dr. N. Semidey	PR
Dr. L. Liu	PR	Dr. W. Shamiyeh	TN
Dr. C. McCoy	FL	Dr. K. Sorensen	NC
Dr. P. Mcleod	AR	Dr. W. Stall	FL
Mr. P. Messick	NC	Dr. R. Story	LA
Mr. T. Minton	FL	Dr. T. Sutton	NC
Dr. W. Mitchem	NC	Dr. R. Talbert	AR
Dr. D. Monks	NC	Mr. S. Taylor	FL
Dr. C. Mullins	TN	Mr. M. Tierney	AR
Dr. J. Norcini	FL	Ms. C. Turlington	FL
Mr. C. Olson	FL	Dr. W. Wilson	TX
Dr. L. Osborne	FL	Ms. J. Yoh	FL
Dr. J. Pena	FL	Dr. R. Young	VA
Dr. R. Ploetz	FL	Dr. G. Zehnder	AL

WESTERN REGION

Mr. H. Agamalian	CA	Dr. J. Klett	CA
Dr. K. Al-Khatib	WA	Mr. P. Kloft	OR
Mr. M. Allan	CA	Dr. R. Lambe	WA
Dr. P. Banks	NM	Dr. S. Mangini	CA
Dr. M. Bari	CA	Mr. B. McReynolds	OR
Mr. C. Bell	CA	Mr. W. Meeks	ID
Dr. R. Burr	OR	Mr. M. Miller	CA
Mr. J. Calkin	OR	Dr. G. Moller	ID
Dr. J. Corkins	CA	Mr. C. Mourer	CA
Mr. D. Curtis	OR	Dr. T. Prather	CA
Mr. J. DeFrancesco	OR	Mr. J. Schlesselman	CA
Mr. B. Fischer	CA	Dr. A. Schreiber	WA
Dr. D. Johnson	WA	Ms. J. Smith	OR
Dr. M. Kawate	HI	Dr. I. Tinsley	OR

USDA-ARS

Ms. S. Benzen	CA	Dr. J. Locke	MD
Mr. L. Birch	WA	Mr. D. McCommas	TX
Dr. R. Boydston	WA	Mr. H. McDaniel	OR
Mr. B. Davis, Jr.	SC	Ms. K. Morford	WA
Mr. B. Fraelich	GA	Dr. R. Sell	WA
Dr. H. Harrison	SC	Dr. A. Simmons	SC
Dr. T. Hendricks	GA	Dr. B. Smith	MS
Dr. A. Herner	MD	Mr. C. Tappan	OH
Dr. A. Johnson	GA	Dr. H. Toba	WA
Dr. C. Johnson	GA	Mr. T. Treat	WA
Ms. N. Kelly	SC	Dr. L. Wax	IL
Dr. C. Krause	OH	Mr. W. Wright	GA
Dr. R. Linderman	OR		

ATTACHMENT 3

Food Use Research Projects

NEW REGISTRATIONS

- Acephate/Carrot/PR 1471
- Acephate/Eggplant/PR 1351
- Acephate/Endive/PR 0780
- Acephate/Mustard Greens/PR 4016
- Acephate/Radish/PR 2130
- Benomyl/Canola/PR 5144
- Benomyl/Dandelion/PR 5167
- Benomyl/Endive/PR 1865
- Bifenthrin/Grape/PR 5335
- Bifenthrin/Raspberry/PR 5004
- Bromoxynil/Leek/PR 6058
- Captan/Cherry/PR 5418
- Carbaryl/Basil/PR 3720
- Carbaryl/Basil/PR 5210
- Carbaryl/Chinese Cabbage/PR 5496
- Carbaryl/Coriander/PR 5211
- Clethodim/Cantaloupe/PR 5225
- Clethodim/Carrot/PR 5217
- Clethodim/Celery/PR 5218
- Clethodim/Clover/PR 6218
- Clethodim/Cucumber/PR 5219
- Clethodim/Endive/PR 5221
- Clethodim/Meadowfoam/PR 6059
- Clethodim/Mint/PR 5235
- Clethodim/Strawberry/PR 5230
- Copper Hydroxide/Dill/PR 2205
- Copper Hydroxide/Longan/PR 3124
- DCPA/Chives/PR 3541
- Difenconazole/Onion/PR 6265
- Dimethoate/Canola/PR 5132
- Dimethoate/Cucumber/PR 0071
- Dimethoate/Summer Squash/PR 0095
- Esfenvalerate/Blueberry/PR 5499
- Esfenvalerate/Brussels Sprout/PR 1656
- Esfenvalerate/Chinese Cabbage/PR 3161
- Esfenvalerate/Kale/PR 2843
- Ethalfluralin/Kenaf/PR 4858
- Ethephon/Coffee/PR 5489
- Ethoprop/Carrot/PR 5490
- Ethoprop/Radish/PR 5731
- Fenamiphos/Asparagus/PR 4275
- Fenamiphos/Bean (Lima)/PR 3180
- Fenamiphos/Strawberry/PR 3026
- Fluvalinate/Blueberry/PR 3976
- Fomesafen/Bean (Dry)/PR 5403
- Fonofos/Grasses (Bluegrass)/PR 4328
- Glyphosate/Cantaloupe/PR 1747
- Glyphosate/Carrot/PR 1243
- Glyphosate/Coriander/PR 3554
- Glyphosate/Cucumber/PR 1748
- Glyphosate/Lentil/PR 6137
- Glyphosate/Pea (Dry)/PR 6139
- Glyphosate/Pepper (Bell)/PR 6222
- Glyphosate/Squash/PR 1851
- Glyphosate/Strawberry/PR 1409
- Hexakis/Bean (Lima)/PR 4952
- Hexakis/Pea (Southern)/PR 4954
- Hexakis/Mint/PR 5377
- Imidacloprid/Bean (Lima)/PR 6201
- Imidacloprid/Bean (Succulent)/PR 5477
- Imidacloprid/Spinach/PR 5450
- Imidacloprid/Tomato/PR 5487
- Iprodione/Pepper (Bell)/PR 2830
- Linuron/Coriander/PR 1625
- Linuron/Dill/PR 1432
- Malathion/Sugar Apple/PR 3438
- Mancozeb/Apple/PR 6299
- Mancozeb/Sugar Apple/PR 3130
- Metalaxyl/Basil/PR 5756
- Metalaxyl/Broccoli Raab/PR 6370
- Metalaxyl/Carambola/PR 4939
- Metalaxyl/Chives/PR 6045
- Metalaxyl/Spinach/PR 5203
- Metalaxyl/Sugar Apple/PR 4940
- Metalaxyl + Copper/Arrugula/PR 5075
- Metalaxyl + Copper/Chinese Cabbage/
PR 2283
- Metalaxyl + Copper/Collard, Kale/PR 1696
- Metalaxyl + Copper/Grape/PR 6266
- Metalaxyl + Copper/Mustard Greens/PR 5351
- Metalaxyl + Copper/Papaya/PR 5404
- Metalaxyl + Copper/Swiss Chard/PR 5349
- Metalaxyl + Copper/Turnip/PR 5350
- Metiram/Apple/PR 6302
- Metolachlor/Asparagus/PR 1908
- Metolachlor/Collard/PR 1216

NEW REGISTRATION PROJECTS (CON'T)

- Metolachlor/Pepper/PR 2986
- Metolachlor/Spinach/PR 1217
- Metolachlor/Strawberry/PR 1676
- Myclobutanil/Asparagus/PR 5414
- Myclobutanil/Currant/PR 5309
- NAA/Pomegranate/PR 5389
- Napropamide/Daikon/PR 3253
- Norflurazon/Leucaena/PR 5185
- Oryzalin/Hops/PR 5321
- Oxyfluorfen/Dill/PR 5367
- Paraquat/Cabbage/PR 1479
- Paraquat/Pea (Succulent)/PR 5193
- PCNB/Cantaloupe/PR 5090
- PCNB/Turnip (Roots & Tops)/PR 0836
- Pendimethalin/Almond/PR 6219
- Pendimethalin/Grape/PR 5740
- Pendimethalin/Grapefruit/PR 5748
- Pendimethalin/Kenaf/PR 5208
- Pendimethalin/Lemon/PR 5749
- Pendimethalin/Mustard Greens/PR 1986
- Pendimethalin/Orange/PR 5732
- Pendimethalin/Pecan/PR 6077
- Pendimethalin/Pepper (Bell)/PR 2740
- Pendimethalin/Pepper(Non-Bell)/PR 2219
- Pendimethalin/Pistachio/PR 6221
- Pendimethalin/Strawberry/PR 2739
- Pendimethalin/Turnip Greens/PR 1987
- Permethrin/Pepper(Non-Bell)/PR 2518
- Prometryn/Fennel/PR 2480
- Propargite/Bean (Lima)/PR 3661
- Propargite/Bean (Snap)/PR 3662
- Propargite/Pea (Southern)/PR 3663
- Propiconazole/Blueberry/PR 3576
- Propiconazole/Cranberry/PR 6320
- Propiconazole/Mint/PR 4911
- Pyridate/Pea (Succulent)/PR 5295
- Sethoxydim/Celery/PR 5702
- Tebuconazole/Cucumber/PR 5277
- Tebuconazole/Greens (Mustard)/PR 6233
- Tebuconazole/Melon/PR 5091
- Thiobencarb/Radish/PR 2356
- Thiobencarb/Sweetpotato/PR 3907
- Triadimefon/Cucumber/PR 2743
- Triadimefon/Pepper (Bell)/PR 5319
- Triadimefon/Raspberry/PR 3495
- Vinclozolin/Onion/PR 1446
- Zinc Phosphide/Grasses (Timothy)/PR 6055
- Zinc Phosphide/Potato/PR 6123

REREGISTRATION PROJECTS

- 2,4-D/Asparagus/PR 5025
- 2,4-D/Corn (Sweet)/PR 4183
- 2,4-D/Filbert/PR 6106
- 2,4-D/Pear/PR 4256
- 2,4-D/Pecan/PR 6125
- 2,4-D/Strawberry/PR 4179
- Azinphos-methyl/Artichoke/PR 6019
- Azinphos-methyl/Cabbage/PR 4761
- Azinphos-methyl/Pepper (Bell)/PR 6017
- Azinphos-methyl/Pepper (Non-Bell)/PR 6111
- Captan/Celery/PR 3972
- Captan/Greens (Mustard)/PR 4334
- Captan/Pepper/PR 3974
- Captan/Raspberry/PR 3953
- Captan/Turnip (Roots & Tops)/PR 4338
- Captan/Watermelon/PR 4339
- Carbaryl/Okra/PR 5772
- Cryolite/Cranberry/PR 5416
- Diazinon/Fig/PR 4101
- Dimethoate/Grasses (Seed)/PR 6037
- Diuron/Caneberry/PR 3675
- Diuron/Pea (Austrian)/PR 5508
- Diuron/Pear/PR 5441
- Ferbam/Blueberry/PR 4212
- Ferbam/Grape/PR 3934
- Malathion/Chestnut/PR 4783
- Malathion/Guava/PR 4799
- Malathion/Mango/PR 4814
- Malathion/Passion Fruit/PR 3726
- Malathion/Spinach/PR 4842
- Malathion/Walnut/PR 4851
- Methidathion/Mango/PR 4537
- Parathion-methyl/Melon/PR 4897
- Permethrin/Avocado/PR 1727
- Permethrin/Cherry/PR 5744
- Permethrin/Squash/PR 5127
- Pronamide/Pea (Austrian)/PR 6217
- SOPP/Pear/PR 6052
- Terbacil/Blueberry/PR 5985
- Terbacil/Caneberry/PR 5469
- Terbacil/Strawberry/PR 5987
- Ziram/Grape/PR 4116
- Ziram/Strawberry/PR 4751

ATTACHMENT 4

New Tolerance, Exemption, Registration and Reregistration Approvals

Fungicides and Nematicides

PROJECT	DATE (FEDERAL REGISTER)	TYPE ACTION
• Benomyl/Papaya/PR 6051	EPA Opinion Letter 2-10-85	Reregistration
• Captan/Strawberry/PR 5326	Registration	Label Amendment
• Cinnamaldehyde/Mushroom/PR 4053	9-20-95	Exemption
• Fenamiphos/Kiwifruit/PR 2735	Registration	Label Amendment

Herbicides and Plant Growth Regulators

• Clomazone/Cabbage/PR 3570 /Chinese Cabbage (tight headed)	10-25-95	New Tolerance
• Clomazone/Cucumber/PR 3571 /Summer Squash/PR 3902	10-25-95	New Tolerance
• Clopyralid/Asparagus/PR 3115	12-13-95	New Tolerance
• Glyphosate/Peppermint & Spearmint/PR 1666	8-30-95	New Tolerance
• Imazethapyr/Lettuce (Head)/PR 5354 Lettuce (Leaf), Endive (Escarole) Romaine & Butterhead	6-14-95	New Tolerance
• Linuron/Asparagus/PR 5014, 6241	12-13-95	New Tolerance
• Metolachlor/Celery/PR 1337	5-3-95	New Tolerance
• Metolachlor/Dry Onion & Garlic/PR 1520	5-3-95	New Tolerance
• Napropamide/Currant/PR 5365	Registration	Label Amendment
• Napropamide/Rhubarb/PR 1939	Registration	Label Amendment
• Napropamide/Sweetpotato/PR 3938	Registration	Label Amendment
• Oxyfluorfen/Blackberry/PR 3485 /Raspberry/PR 3486	12-6-95	New Tolerance
• Paraquat/Lentil, Forage, Hay/PR 2302	5-24-95	New Tolerance
• Prometryn/Parsley/PR 1935	4-26-95	New Tolerance
• Pronamide/Radicchio/PR 4601	1-25-95	New Tolerance
• Sethoxydim/Asparagus/PR 2202, 4009	5-24-95	New Tolerance
• Sethoxydim/Carrot/PR 2046	5-24-95	New Tolerance
• Sethoxydim/Endive/PR 4614	5-24-95	New Tolerance
• Sethoxydim/Cranberry/PR 2132	5-24-95	New Tolerance
• Sethoxydim/Peppermint & Spearmint/PR 2200	5-24-95	New Tolerance
• Sodium Chlorate/Potato/PR 4386	1-25-95	Exemption

Insecticides & Repellents

• Carbofuran/Canola/PR 3163 /Canola/PR 3163	2-22-95 12-11-95	Time-Limited Tolerance Time-Limited Tolerance (Extended)
• Codling Moth Granulosis Virus/All Raw Agricultural Commodities/PR 1B	8-16-95	Exemption
• Cyromazine/Chinese Cabbage/PR 2670, 2672	Registration	Label Amendment
• Cyromazine/Chinese Mustard/PR 2671	Registration	Label Amendment
• Cryolite/Cranberry/PR 546	Opinion Letter 12-5-95	Reregistration
• Diazinon/Cranberry/PR 537	Registration	Label Amendment
• Dimethoate/Asparagus/PR 2457	8-30-95	New Tolerance
• Esfenvalerate/Blueberry/PR 2565	Registration	Label Amendment
• Imidacloprid/Fruiting Vegetables except Cucurbits/PR 5178, 5182 (Company petition with IR-4 data)	4-12-95	New Tolerance
• Imidacloprid/Hop/PR 5369	5-10-95	Time-Limited Tolerance
• Imidacloprid/Hop/PR 5369	8-30-95	New Tolerance
• Methyl Anthranilate/Blueberry/PR 5028 /Cherry/PR 5026 /Grape/PR 5029	4-26-95	Exemption
• Permethrin/Bell Pepper/PR 1357	Opinion Letter 11-14-95	Reregistration

ATTACHMENT 5

Crop Group Definition Approvals

Summer Squash = Chayote (Fruit). Accordingly, 39 potentially useful tolerances will be extended to include Chayote (Fruit). Federal Register date: 8-16-95.

New EPA Crop Group/Subgrouping scheme which includes minor crops requested for inclusion by IR-4. Accordingly, many potentially useful tolerances will be extended to include more minor crops in the group/subgroups tolerance expression terminology. The "Food and Feed Crops of the United States" book by J.R. Magness, G.M. Markle, and C.C. Compton was used as a reference in developing the EPA crop grouping scheme and the Guide to Codex Recommendations Concerning Pesticide Residues, Codex Classification of Foods and Animal Feeds (Joint FAO/WHO Food Standards Programme, Codex Alimentarius Commission) which is used in international harmonization. Federal Register date: 5-17-95.

ATTACHMENT 6

Tolerance and Exemption Approvals Proposed

Fungicides

- Propiconazole/Mint/PR 4127
- Propiconazole/Mushroom/PR 5056

Herbicides

- Trifluralin/Peppermint/PR 5515
- Norflurazon/Caneberries/PR 3233
- Pronamide/Nongrass Animal Feed Group/PR 6056
- Pronamide/Stone Fruit Groups/PR 5286

Insecticides and Miticides

- Abamectin/Hop/PR 4019
- Imidacloprid/Cucurbit Vegetables Group/PR 6425

ATTACHMENT 7

EPA Responses to IR-4 Petitions

- Abamectin/Hop/PR 4019
- Chlorpyrifos/Currant/PR 5149
- Chlorpyrifos/Olive/PR 3971
- Cryolite/Cranberry/PR 5046
- Dicofol/Caneberry/PR 4102
- Ethoprop/Mint/PR 4012
- Fosetyl-Al/Blueberry/PR 4937
- Oxyfluorfen/Blackberry, Raspberry/PR 3485, 3486
- Propargite/Avocado/PR 2378

ATTACHMENT 8

Data Packages Completed

(E=submitted to EPA; M=submitted to manufacturer; S=submitted to state agency)

NEW TOLERANCES

• 2,4-D/Wild Rice/PR 1015	E	• Fosetyl-Al/Grape/PR 3962	E
• Abamectin/Hop/PR 4019	E	• Hexakis/Bell Pepper/PR 3585	M
• Abamectin/Hop/PR 6334	E	• Imidacloprid/Cucurbits (Soil	E
• Bentazon/Clover (Seed)/PR 1840	M	carryover)/PR 6425	
• Bifenthrin/Artichoke/PR 5145	E	• Iprodione/Apple/PR 5136	M
• Bifenthrin/Celery/PR 4945	E	• Mancozeb/Mango/PR 3028	E
• Carbaryl/Arugula/PR 5209	M	• Metalaxyl/Caneberry/PR 5513	E
• Chlorothalonil/Mushroom/PR 6204	E	• Metalaxyl/Sage/PR 2491	M
• Chlorothalonil/Papaya/PR 3678	M	• Methyl Anthranilate/All Crops/	M
• Chlorothalonil/Pistachio/PR 5196	M	PR 5030, 5031	
• Chlorpyrifos/Hop/PR 2611	M	• Metolachlor/Carrot/PR 2154	M
• Clomazone/Bean (Snap)/PR 2707	E	• Metolachlor/Grasses (Seed Crop)/	E
• Clomazone/Tuber Veg. Group/	M	PR 6354	
PR 5371, 5372, 5373		• Mycobutanil/Snapbean/PR 3696	M
• Copper-Ethylenediamine Complex/	M	• Napropamide/Dill/PR 4174	M
Potato/PR 6329		• Napropamide/Oriental Radish/	E
• Cryolite/Cranberry/PR 5416	E	PR 5133	
• Cypermethrin/Onion (Green)/	E	• Norflurazon/Leucaena/PR 5185	E
PR 2963		• Paraquat/Dry Pea/PR 3200	M
• DCNA/Radicchio/PR 6316	E	• PCNB/Radish/PR 633	M
• Diazinon/Pepinos/PR 3515	M	• Pendimethalin/Carrot/PR 4084	E
• Diflubenzuron/Range Grass/	E	• Pendimethalin/Citrus/PR 5732,	M
PR 757		5748, 5749	
• Esfenvalerate/Kiwifruit/PR 3945	M	• Pronamide/Non-grass Animal	E
• Esfenvalerate/Kohlrabi/PR 3714	E	Feed/PR 6056	
• Ethoprop/Mint/PR 4012	E	• Pyridate/Garbanzo/PR 3866	M
• Fenarimol/Filbert/PR 5012	E	• Quizalofop/Mint/PR 2719	E
• Fomesafen/Snap Bean/PR 3472	E	• Quizalofop/Pineapple/PR 3893	E
• Fonofos/Cucumber/PR 3653	M	• Triadimefon/Sugarcane/PR 5187	E

REREGISTRATIONS

• 2,4-D/Apple/PR 4182	E	• Dicofol/Blackberry & Rasp-	E
• 2,4-D/Asparagus/PR 4090	E	berry/PR 4103, 4102	
• 2,4-D/Blueberry/PR 4295	E	• Dimethoate/Blueberry/PR 0028	M
• 2,4-D/Cherry/PR 4254	E	• Linuron/Asparagus/PR 6241	E
• 2,4-D/Cranberry/PR 4297	E	• Malathion/Apricot/PR 4795	M
• 2,4-D/Peach/PR 4255	E	• Malathion/Blackberry/PR 4774	M
• 2,4-D/Pear/PR 4256	E	• Malathion/Celery/PR 4781	E
• 2,4-D/Pistachio/PR 4301	E	• Malathion/Fig/PR 4793	M
• 2,4-D/Plum/PR 4257	E	• Malathion/Flax/PR 4795	M
• 2,4-D/Potato/PR 4302	E	• Malathion/Mushroom/PR 4816	M
• 2,4-D/Strawberry/PR 4179	E	• Malathion/Okra/PR 4820	M
• 2,4-D/Sweet Corn/PR 4183	E	• Malathion/Peach/PR 4826	M
• Benomyl/Mushroom/PR 6081	E	• Malathion/Raspberry/PR 4835	M
• Bromoxynil/Canary Grass/	E	• Malathion/Strawberry/PR 5152	M
PR 4343		• Mancozeb/Carrot/PR 3836	M
• Bromoxynil/Mint/PR 1291	E	• Methyl Parathion/Hop/PR 4142	M
• Captan/Pear/PR 4335	E	• Streptomycin/Beans/PR 6347	E
• Chlorothalonil/Onion (Green)/PR 5238	M		

ATTACHMENT 8

Data Packages Completed (Continued)

(E=submitted to EPA; M=submitted to manufacturer; S=submitted to state agency)

MAJOR AMENDMENTS TO PREVIOUSLY SUBMITTED DATA

• Abamectin/Hop/PR 4091	E	• Fenamiphos/Melon/PR 887, 3511	M
• Acephate/Leaf Lettuce/PR 5164	E	• Fenamiphos/Squash & Cucumber	E
• Chlorothalonil/Asparagus/PR 0319	M	Subgroup/PR 3512	
• Chlorothalonil/Mango/PR 2162	M	• Fosetyl-Al/Blueberry/PR 4937	E
• Esfenvalerate/Artichoke/PR 3845	M	• Malathion/Sugar Apple/PR 3438	E
• Esfenvalerate/Cranberry/PR 2174	E	• Paraquat/Artichoke/PR 2275	M
• Esfenvalerate/Mustard Greens/ PR 1757	E	• Triadimefon/Artichoke/PR 3530	M

REGISTRATIONS

• Acephate/Kenaf/PR 4621	M	• Napropamide/Chinese Mustard/ PR 3250	M
• Captan/Lettuce/PR 3168	M	• Napropamide/Rosemary/PR 3442	M
• Captan/Strawberry/PR 5326	M	• Napropamide/Summer Squash/ PR 3466	M
• Diuron/Blueberry/PR 3544	M	• Oxyfluorfen/Kenaf/PR 5245	M
• Glyphosate/Pineapple/PR 1554	M	• Pyrazon/Swiss Chard/PR 1681	M
• Linuron/Celery/PR 4936	M	• Sethoxydim/Kenaf/PR 4052	M
• Methyl Parathion/Kenaf/PR 4860	M	• Trifluralin/Kohlrabi/PR 1044	M
• Napropamide/Basil/PR 3439	M		

ATTACHMENT 9

Regulatory Documents in Preparation

- 2,4-D/Hops/PR 5024
- Amitraz/Pecan/PR 3876
- Azinphos-methyl/Broccoli/PR 4759
- Azinphos-methyl/Cauliflower/PR 4762
- Bifenthrin/Broccoli/PR 5272
- Bifenthrin/Cabbage/PR 5176
- Bifenthrin/Cauliflower/PR 5273
- Bifenthrin/Eggplant/PR 5401
- Bifenthrin/Lettuce (Head)/PR 5274
- Bifenthrin/Pea (Succulent)/PR 5237
- Bifenthrin/Tomato (GH)/PR 4868
- Captan/Spinach/PR 3975
- Carbaryl/Basil/PR 2597
- Carbaryl/Leek/PR 3073
- Carbaryl/Lychee/PR 5201
- Carbaryl/Pineapple/PR 5042
- Carbaryl/Radicchio/PR 5498
- Carbaryl/Sapote/PR 5518
- Carbofuran/Canola/PR 3163
- Chlorpyrifos/Greens (Mustard)/PR 3669
- Chlorpyrifos/Kale/PR 3668
- Chlorpyrifos/Kiwifruit/PR 5048
- Chlorpyrifos/Pea (Southern)/PR 0868
- Chlorpyrifos/Pepper (Bell)/PR 1641
- Chlorpyrifos/Persimmon/PR 4976
- Chlorpyrifos/Root-Tuber Crop Vegetables/
PR 3983
- Clethodim/Pea (Dry)/PR 5204
- Clomazone/Broccoli/PR 3569
- Clomazone/Melon/PR 4047
- Clopyralid/Cabbage/PR 3513
- Clopyralid/Cranberry/PR 3882
- Clopyralid/Plum/PR 3625
- Copper Hydroxide/Longan/PR 3124
- Cyfluthrin/Hops/PR 4120
- DCPA/Asparagus/PR 1548
- Diazinon/Chives/PR 3543
- Diazinon/Pistachio/PR 3143
- Diazinon/Watercress/PR 3892
- Dimethoate/Tomato/PR 3294
- Disulfoton/Collard/PR 2567
- Disulfoton/Greens (Mustard)/PR 2530
- Disulfoton/Kohlrabi/PR 460
- Disulfoton/Turnip (Roots & Tops)/
PR 2192
- Diuron/Mint/PR 5439
- Esfenvalerate/Endive/PR 2241
- Ethephon/Blueberry/PR 4460
- Ethephon/Cranberry/PR 4461
- Ethephon/Fig/PR 4126
- Ethephon/Peach/PR 3920
- Fenamiphos/Blueberry/PR 2872
- Fenamiphos/Calabaza/PR 3503
- Fenamiphos/Kiwifruit/PR 2735
- Ferbam/Caneberry/PR 3935
- Ferbam/Cranberry/PR 4092
- Fluazifop-P-Butyl/Pepper (Non-Bell)/
PR 4387
- Fluazifop-P-Butyl/Rhubarb/PR 2404
- Fonofos/Watermelon/PR 3655
- Fosetyl-Al/Macadamia/PR 3187
- Glyphosate/Pea (Pigeon)/PR 2029
- Glyphosate/Pistachio/PR 6377
- Hexakis/Artichoke/PR 4977
- Iprodione/Clover/PR 5728
- Iprodione/Pistachio/PR 5391
- Lactofen/Pepper (Bell)/PR 4400
- Lactofen/Tomato/PR 4163
- Linuron/Celeriac/PR 3557
- Linuron/Fennel/PR 3608
- Malathion/Apple/PR 4768
- Malathion/Apricot/PR 4769
- Malathion/Broccoli/PR 4776
- Malathion/Cabbage/PR 4778
- Malathion/Flax/PR 4795
- Malathion/Greens (Mustard)/PR 4817
- Malathion/Macadamia/PR 4812
- Malathion/Melon/PR 4815
- Malathion/Orange/PR 5142
- Malathion/Pea (Succulent)/PR 4823
- Malathion/Peach/PR 4826
- Malathion/Pear/PR 4827
- Malathion/Peppermint/PR 4829
- Malathion/Spearmint/PR 4841
- Malathion/Turnip (Roots & Tops)/PR 4847
- Malathion/Watercress/PR 4852

ATTACHMENT 9

Regulatory Documents in Preparation (Continued)

- Metalaxyl/Caneberry/PR 3078
- Metalaxyl/Papaya/PR 5404
- Metolachlor/Broccoli/PR 1526
- Metolachlor/Broccoli (Chinese)/PR 3247
- Metolachlor/Cabbage (Chinese)/PR 2256
- Metolachlor/Caneberry/PR 2617
- Metolachlor/Cauliflower/PR 1957
- Metolachlor/Radish/PR 2988
- Metribuzin/Bermuda/PR 1936
- Myclobutanil/Raspberry/PR 5058
- NAA/Almond/PR 3524
- NAA/Grape/PR 1219
- NAA/Plum/PR 3523
- NAA/Walnut/PR 3525
- Napropamide/Marjoram/PR 3440
- Napropamide/Persimmon/PR 5094
- Oryzalin/Banana/PR 1344
- Oxyfluorfen/Broccoli/PR 5256
- Oxyfluorfen/Cabbage/PR 5105
- Oxyfluorfen/Cantaloup/PR 3710
- Oxyfluorfen/Cucumber/PR 3711
- Oxyfluorfen/Hops/PR 5199
- Oxyfluorfen/Squash (Summer)/PR 3712
- Oxyfluorfen/Onion (Dry Bulb)/PR 5739
- Paraquat/Bean (Lima)/PR 3098
- Paraquat/Calabaza/PR 3926
- Paraquat/Cucumber/PR 2978
- Paraquat/Lettuce (Head)/PR 2979
- Paraquat/Mayhaw/PR 5171
- Paraquat/Okra/PR 1913
- Paraquat/Onion (Green)/PR 2984
- Paraquat/Pea (Pigeon)/PR 3890
- Paraquat/Pepper/PR 4971
- Paraquat/Watermelon/PR 2976
- Parathion-methyl (EC)/Pepper (Bell)/PR 4903
- PCNB/Cantaloup/PR 5090
- Pendimethalin/Leek/PR 4578
- Pendimethalin/Onion (Green)/PR 5097
- Permethrin/Cabbage (Chinese) (Bok Choy)/PR 2771
- Permethrin/Collard/PR 0941
- Permethrin/Cucumber/PR 5126
- Permethrin/Squash/PR 5127
- Permethrin/Turnip (Roots & Tops)/PR 3565
- Phenmedipham/Cabbage/PR 4057
- Phosmet/Sweetpotato/PR 3463
- Pronamide/Beet (Sugar)/PR 4074
- Pronamide/Chicory (Tops)/PR 5027
- Pronamide/Rhubarb/PR 3686
- Pronamide/Vetch/PR 6056
- Sethoxydim/Artichoke/PR 6102
- Sethoxydim/Avocado/PR 3701
- Sethoxydim/Beet (Garden)/PR 5757
- Sethoxydim/Caneberry/PR 5729
- Sethoxydim/Cassava/PR 3034
- Sethoxydim/Daikon/PR 2470
- Sethoxydim/Date/PR 3702
- Sethoxydim/Fig/PR 3703
- Sethoxydim/Horseradish/PR 2471
- Sethoxydim/Kiwifruit/PR 3704
- Sethoxydim/Okra/PR 2339
- Sethoxydim/Persimmon/PR 3706
- Sethoxydim/Pistachio/PR 3707
- Sethoxydim/Pomegranate/PR 3708
- Sethoxydim/Radish/PR 2469
- Sethoxydim/Rhubarb/PR 2438
- Sethoxydim/Rutabaga/PR 2468
- Sethoxydim/Safflower/PR 2531
- Sethoxydim/Tanier/PR 3033
- Sethoxydim/Taro/PR 3032
- Sethoxydim/Turnip (Roots & Tops)/PR 2048
- Simazine/Mayhaw/PR 5170
- Terbacil/Cranberry/PR 0199
- Triadimefon/Cucumber (GH)/PR 2743
- Ziram/Caneberry/PR 4117
- Ziram/Pepper (Bell)/PR 4088
- Ziram/Tomato/PR 4089

ATTACHMENT 10

Ornamental Pesticide Registrations

- Abamectin/Andromeda/11855A, 11856A
- Abamectin/Azalea/10571A
- Abamectin/Blue Holly/11859A, 11860A
- Abamectin/Citrus (Non-Bearing)/11849A
- Abamectin/Coconut Palm/11846A
- Abamectin/English Holly/11853A, 11854A
- Abamectin/Hemlock/11767A, 11847A
- Abamectin/Japanese Holly/10573A, 11852A
- Abamectin/Rhododendron/11857A, 11858A
- Abamectin/West Indies Mahogany/11848A
- Acephate/African Violet/00276A
- Acephate/Balsam/01368A
- Acephate/Begonia/0332A, 03108A
- Acephate/Easter Lily/00277A
- Acephate/Eucalyptus/04649A
- Acephate/Geranium/01309A, 04965A
- Acephate/Indian Hawthorn/01375A
- Acephate/Lily/01424A
- Acephate/Marigold/06486A
- Acephate/Petunia/03112A
- Acephate/Snapdragon/06487A
- Ancymidol/Aralia Ivy/08071A
- Ancymidol/Blazing Star/08313A, 08320A
- Ancymidol/Bleeding Heart/08317A, 08324A
- Ancymidol/Candytuft/08314A, 08321A
- Ancymidol/Ceriman/08073A
- Ancymidol/Clematis/08318A, 08325A
- Ancymidol/Columbine/08316A, 08323A
- Ancymidol/Larkspur/08315A, 08322A
- Ancymidol/Umbrella Tree/08075A
- Azadiractin/Azalea/10621A
- Azadiractin/Balsam/10584A
- Azadiractin/Begonia/10590A
- Azadiractin/Chrysanthemum/10589A
- Azadiractin/Hibiscus/10595A
- Azadiractin/Hydrangea/10596A
- Azadiractin/Lisianthus/10594A
- Azadiractin/Marigold/10586A
- Azadiractin/Petunia/10585A
- Azadiractin/Scarlet Sage/10587A
- Azadiractin/Zinnia/10588A
- Bendiocarb/Azalea/07266A
- Bendiocarb/Baby's Breath/08784A
- Bendiocarb/Birch/10014A
- Bendiocarb/Carnation/07316A
- Bendiocarb/Cherry (Non-Bearing)/10103A
- Bendiocarb/Firethorn/07258A
- Bendiocarb/Parlor Palm/08880A
- Bendiocarb/Peach (Non-Bearing)/10102A
- Bendiocarb/Plane Tree/10021A
- Bendiocarb/Plum (Non-Bearing)/10104A
- Bendiocarb/Rhododendron/04245A
- Bendiocarb/Rose/10099A
- Bendiocarb/Yew/10023A
- Benefin+Oryzalin/Eucalyptus/10945A, 10946A
- Chlorpyrifos/Balsam/08066A
- Chlorpyrifos/Croton/06672A, 06673A
- Chlorpyrifos/Hibiscus/07024A
- Chlorpyrifos/Indian Hawthorn/01007A
- Chlorpyrifos/Rose/06666A, 06831A
- Chlorpyrifos (Micro)/Ageratum/10160A
- Chlorpyrifos (Micro)/Balsam/10165A
- Chlorpyrifos (Micro)/Calendula/10161A
- Chlorpyrifos (Micro)/Carnation/10164A
- Chlorpyrifos (Micro)/Dahlia/10162A
- Chlorpyrifos (Micro)/Geranium/10166A
- Chlorpyrifos (Micro)/Hydrangea/10182A
- Chlorpyrifos (Micro)/Marigold/10167A
- Chlorpyrifos (Micro)/Scarlet Sage/10171A
- Chlorpyrifos (Micro)/Shasta Daisy/10163A
- Copper Complex/Balsam/11235A
- Copper Complex/Poinsettia/11234A
- Copper Hydroxide/Egyptian Star Cluster/10864A, 10905A
- Copper Hydroxide/Indian Hawthorn/02709A, 09019A
- Copper Hydroxide/Mulberry/10883A
- Copper Hydroxide/Rose of Sharon/10871A
- Copper Hydroxide/Verbena/10878A, 10919A
- Diazinon (DZN)/Cotoneaster/00973A
- Diazinon (DZN)/Hemlock/00954A
- Diazinon (Micro)/Ageratum/08143A, 10276A
- Diazinon (Micro)/Balsam/08150A, 10278A
- Diazinon (Micro)/Carnation/10271A
- Diazinon (Micro)/Coleus/08145A
- Diazinon (Micro)/English Ivy/08148A
- Diazinon (Micro)/Good Luck Plant/08131A, 08168A
- Diazinon (Micro)/Madwort/08144A
- Diazinon (Micro)/Prayer Plant/08135A
- Diazinon (Micro)/Scarlet Sage/10281A
- Diazinon (Micro)/Shasta Daisy/08141A
- Diazinon (Micro)/Velvet Plant/08132A
- Diazinon (Micro)/Wandering Jew/08151A

ATTACHMENT 10

Ornamental Pesticide Registrations (Continued)

- Dienochlor/Parlor Palm/08807A
- Etridazole/Andromeda/07597A
- Etridazole/Azalea/01524A
- Etridazole/Boxwood/01784A
- Etridazole/Daphne/01567A, 01568A
- Etridazole/Dogwood/05979A
- Etridazole/Japanese Andromeda/07597A
- Etridazole/Japanese Holly/08586A
- Etridazole/Juniper/08583A
- Etridazole/Larkspur/01873A, 02542A
- Etridazole/Lily/02494A
- Etridazole/Mountain Laurel/04512A
- Etridazole/Natal Plum/01534A, 01536A
- Etridazole/Norfolk Island Pine/06021A, 06022A
- Etridazole/Periwinkle (Vinca)/08046A, 08047A
- Etridazole/Rhododendron/08584A
- Etridazole/Shasta Daisy/01249A, 02516A, 04986A
- Etridazole/Tailflower/02549A, 02550A
- Etridazole + Thiophanate/Nasturium/02964A
- Fenpropathrin/Azalea/11100A, 11101A
- Fenpropathrin/Firethorn/11092A, 11093A
- Fenpropathrin/Gardenia/11098A, 11099A
- Fenpropathrin/Holly/11094A
- Fenpropathrin/Juniper/11096A, 11097A
- Isoxaben/Daylily/10983A, 10984A
- Isoxaben/Lilyturf/10985A, 10986A
- Isoxaben/Potentilla/11323A
- Isoxaben + Oryzalin/Firethorn/10614A
- Isoxaben + Oryzalin/Weigela/10615A
- Mancozeb/Balsam/02672A, 02673A
- Mancozeb/Fir/09370A
- Mancozeb/Hickory/02713A
- Mancozeb/Larkspur/08039A, 08040A
- Mancozeb/Loquat/06025A
- Mancozeb/Nasturtium/07735A
- Mancozeb/Palm/07129A, 07783A
- Mancozeb/Palm-Beach-Bells/07736A
- Mancozeb/Phlox/02688A, 02689A
- Mancozeb/Pine/08203A
- Mancozeb/Poplar/05987A
- Mancozeb/Scotch Pine/08204A
- Mancozeb/Spathe Flower/09382A, 09383A
- Metalaxyl/Baby's Breath/07242A, 07243A
- Metalaxyl/Columbine/08534A, 08549A
- Metalaxyl/New Guinea Impatiens/10422A
- Metalaxyl/Protonia/09100A
- Metalaxyl/Rose/07247A, 07248A, 08076A
- Metalaxyl/Stonecrop/08533A, 08548A
- Metalaxyl/Tailflower/07238A
- Metalaxyl/Yew/05334A
- Metolachlor/Lamb's-Ears/10790A
- Metolachlor/Madwort/10785A
- Metolachlor/Pampas Grass/06447A
- Metolachlor/Rose/09368A
- Metolachlor/Speedwell (Veronica)/10795A
- Metolachlor/Yarrow/10786A
- Metolachlor + Simazine/Arrowwood/07362A
- Metolachlor + Simazine/Bridal-Wreath/06480A
- Metolachlor + Simazine/Christmas Trees/06465A
- Metolachlor + Simazine/Cleyera Japonica/06549A
- Metolachlor + Simazine/Crape Myrtle/07811A
- Metolachlor + Simazine/Firethorn/08180A
- Metolachlor + Simazine/Forsythia/06471A
- Metolachlor + Simazine/Gardenia/06550A
- Metolachlor + Simazine/Heavenly Bamboo/07419A
- Metolachlor + Simazine/Japanese Pittosporum/06479A, 06626A
- Metolachlor + Simazine/Lilyturf/06575A
- Metolachlor + Simazine/Maple/06478A
- Metolachlor + Simazine/Photinia/06625A, 07809A
- Metolachlor + Simazine/Pine/07360A
- Metolachlor + Simazine/Privet/07361A
- Metolachlor + Simazine/Purpleleaf Wintercreeper/06470A, 07418A
- Metolachlor + Simazine/Rose/08183A
- Metolachlor + Simazine/Southern Yew/06627A
- Metolachlor + Simazine (Herbigation)/Arrowwood/06788A
- Metolachlor + Simazine (Herbigation)/Aucuba/06652A
- Metolachlor + Simazine (Herbigation)/Azalea/06653A
- Metolachlor + Simazine (Herbigation)/Gardenia/06679A
- Metolachlor + Simazine (Herbigation)/Heavenly Bamboo/07422A
- Metolachlor + Simazine (Herbigation)/Japanese Pittosporum/06777A
- Metolachlor + Simazine (Herbigation)/Lilyturf/06735A
- Metolachlor + Simazine (Herbigation)/Purpleleaf Wintercreeper/07421A
- Myclobutanil/Phlox/11400A, 11821A
- Napropamide/Indian Hawthorn/01415A, 05949A, 06294A

ATTACHMENT 10

Ornamental Pesticide Registrations (Continued)

- Oryzalin/Acacia/07433A
- Oryzalin/Agave/07435A
- Oryzalin/Arrowwood/01181A
- Oryzalin/Ash/05335A
- Oryzalin/Aster/07182A
- Oryzalin/Bellflower/07177A
- Oryzalin/Blazing Star/09143A, 09150A
- Oryzalin/Elephant's Ear/10125A
- Oryzalin/False Spirea/09142A, 09149A
- Oryzalin/Flag/09057A
- Oryzalin/Indian Hawthorn/05504A, 05505A
- Oryzalin/Peach (Non-Bearing)/02260A, 09652A
- Oryzalin/Scarlet Sage/06118A
- Oryzalin/Shasta Daisy/07044A, 07045A
- Oryzalin/Stokes Aster/10719A
- Oxadiazon/Acacia/08330A
- Oxadiazon/Ajuga/09964A
- Oxadiazon/Indian Hawthorn/05220A
- Oxadiazon/Potentilla/11313A
- Oxadiazon/Protea/10539A
- Oxyfluorfen/Hemlock/08189A
- Oxyfluorfen + Oryzalin/Indian Hawthorn/09514A
- PCNB/Aglaonema/03001A
- PCNB/Azalea (Rhododendron)/08481A
- PCNB/Balsam/08503A
- PCNB/Bee Balm/08466A
- PCNB/Betel Palm/06169A, 06180A
- PCNB/Canna/05920A
- PCNB/Carnation/08461A
- PCNB/Columbine/08459A
- PCNB/Elephant's Ear/02511A
- PCNB/Flowering Maple/08505A
- PCNB/Foxglove/08463A
- PCNB/Gardenia/07614A
- PCNB/Gazania/08462A
- PCNB/Grape Ivy/08519A
- PCNB/House Leek/08456A
- PCNB/Larkspur/03413A, 08849A
- PCNB/Lupine/08468A
- PCNB/Madwort/03282A
- PCNB/Maple/06174A
- PCNB/Natal Plum/08484A
- PCNB/New Guinea Impatiens/10457A
- PCNB/Parlor Palm/03003A
- PCNB/Persian Violet/08472A
- PCNB/Pocketbook Flower/08470A
- PCNB/Privet/05757A, 08492A
- PCNB/Shasta Daisy/08474A
- PCNB/Southern Yew/08494A
- PCNB/Spathe Flower/08489A
- PCNB/Stonecrop/08458A
- PCNB/Tailflower/03264A
- PCNB/Vervain/08513A
- Pendimethalin/Eucalyptus/11017A, 11020A
- Pendimethalin/Gaillardia/11162A, 11163A
- Pendimethalin/Leyland Cypress/11018A, 11021A
- Piperalin/Rose/11544A, 11565A
- Prodiamine/Ajuga/09723A
- Prodiamine/Andromeda/07365A, 11631A
- Prodiamine/Bahia Grass/09655A
- Prodiamine/Barberry/09250A
- Prodiamine/Carpobrotus/09271A
- Prodiamine/Cast Iron Plant/11281A
- Prodiamine/Cypress/09273A
- Prodiamine/Daffodil/09496A
- Prodiamine/Delosperma/09274A
- Prodiamine/English Ivy/06619A
- Prodiamine/False Cypress/09719A
- Prodiamine/Heavenly Bamboo/07379A
- Prodiamine/Hemlock/00578A
- Prodiamine/Honeysuckle/09334A
- Prodiamine/Hopbush/09275A
- Prodiamine/Indian Hawthorn/09656A
- Prodiamine/Creeping Lily Turf/11866A
- Prodiamine/Giant Lily Turf/11348A
- Prodiamine/Magnolia/09721A, 11757A
- Prodiamine/Maple/09235A
- Prodiamine/Pampas Grass/04432A
- Prodiamine/Periwinkle (Vinca)/09191A
- Prodiamine/Photinia/06599A
- Prodiamine/Privet/06595A
- Prodiamine/Redroot/09272A
- Prodiamine/Spruce/09337A
- Prodiamine/Stonecrop/09724A
- Prodiamine (Barricade)/Leatherleaf Fern/
08027A, 08032A
- Prodiamine (Barricade)/Tree Fern (Asparagus)/
11282A
- Resmethrin/Balsam/07977A
- Resmethrin/Begonia/05028A
- Resmethrin/Carnation/05012A
- Resmethrin/Parlor Palm/08833A
- Resmethrin/Petunia/05032A
- Resmethrin/Poinsettia/05011A
- Sethoxydim/Andromeda/08961A, 09600A
- Sethoxydim/Avens/10689A, 10726A

ATTACHMENT 10

Ornamental Pesticide Registrations (Continued)

- Sethoxydim/Baby's Breath/10690A, 10727A
- Sethoxydim/Blue Beard/09663A, 09669A
- Sethoxydim/Christmas Trees/10672A
- Sethoxydim/Coneflower/10691A, 10728A
- Sethoxydim/Daffodil/09400A
- Sethoxydim/False Cypress/09659A, 09665A
- Sethoxydim/Lamb's Ear/10693A, 10730A
- Sethoxydim/Black Locust/09660A, 09666A
- Sethoxydim/Oregon Grape/09007A
- Sethoxydim/Stokes Aster/10694A, 10731A
- Sethoxydim/Tulip/09398A
- Sethoxydim/Yarrow/10725A
- Simazine/Arborvitae/05969A
- Simazine/Holly/02492A, 05340A
- Simazine/Juniper/02748A, 07756A
- Simazine/Palm/07414A
- Simazine/Yew/05968A
- Sunspray Ultra-Fine Spray Oil/Azalea/10632A
- Sunspray Ultra-Fine Spray Oil/Begonia/10603A
- Sunspray Ultra-Fine Spray Oil/Chrysanthemum/10602A
- Sunspray Ultra-Fine Spray Oil/Dumb Cane/10627A
- Sunspray Ultra-Fine Spray Oil/Easter Lily/10601A
- Sunspray Ultra-Fine Spray Oil/Gardenia/10629A
- Sunspray Ultra-Fine Spray Oil/Hibiscus/10630A
- Sunspray Ultra-Fine Spray Oil/Palm/10628A
- Sunspray Ultra-Fine Spray Oil/Poinsettia/10600A
- Triflumazole/Azalea/11042A, 11043A
- Triflumazole/Rhododendron/11044A, 11045A
- Triflumazole/Spathe Flower/11041A

ATTACHMENT 11

Biopesticide Research and Development

Biopesticide Petitions and Submitted to EPA or the Registrant in 1995:

Flavobacterium balustinum strain 299/vegetable bedding plants and *Trichoderma hametum* isolate 382/vegetable bedding plants.

In February 1995, IR-4 in cooperation with The Ohio State University and Earthgro Inc. submitted two petitions to EPA requesting temporary tolerance exemptions from the requirement of a tolerance for the microbial pest control agents *F. balustinum* strain 299 and *T. hamatum* isolate 382 in or on vegetable bedding plants to control damping off and root rot pathogens. These petitions were submitted to EPA to support an Experimental Use Permit Application for "Earthgro's Disease Suppressive Potting Mix" for use on ornamentals and vegetable bedding plants.

Non-aflatoxin producing *Aspergillus flavus* as a niche competitor in cotton fields in Arizona.

IR-4 in cooperation with Dr. Peter Cotty submitted a petition to EPA on August 8, 1995 for a temporary tolerance exemption for *Aspergillus flavus* AF36 to support an Experimental Use Permit Application for use on cotton to reduce aflatoxin accumulation in cotton meal.

Formic acid for use in honey bee hives to control tracheal mite.

In October 1995, IR-4 prepared a petition requesting an exemption from the requirement of a tolerance for formic acid in honey and beeswax. This petition has been reviewed by the registrant and is scheduled to be submitted to EPA in the first quarter of 1996.

Methyl anthranilate as a bird repellent on all raw agricultural commodities.

In December 1995, IR-4 prepared a petition requesting an exemption from the requirement of a tolerance for methyl anthranilate on all raw agricultural commodities. This petition has been reviewed by the registrants and will be submitted to EPA in January 1996.