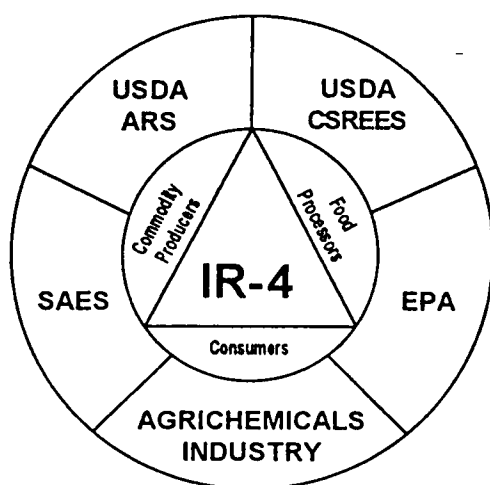

ANNUAL REPORT 1994



**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, 1994 - December 31, 1994

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. Also in 1982, objectives of the program were amended to include the registration of animal health drugs for use on minor animal species. In 1994, the minor use animal drug program was independently organized within USDA-CSREES as NRSP-7, A National Program to Approve Drugs for Minor Animal Species.

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 aiding 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 monies have been earmarked for the purpose of supporting research in this area and efforts are moving forward from coalitions with public and private sector individuals and organizations in order to leverage funding. A coordinator of biopesticides has been added to coordinate this program.

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.

This Annual Report highlights progress in 1994 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, 1994 to December 31, 1994.

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 6280 IR-4 food-use requests, an increase of 547 over the 5733 requests reported in 1993. Of these, 1384 are researchable projects with 1042 representing requests for new uses and 342 representing reregistration requests. SAES and USDA-ARS cooperators scheduled research on 310 requested clearance projects (studies) which represented 640 field trials coordinated by IR-4 Regional Laboratories. Residue samples from 589 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 1994 are shown in Attachment 3.

FOOD USE REGULATORY ACCOMPLISHMENTS:

The IR-4 Project was responsible for 141 minor use pesticide clearances in 1994. Twelve of these were for new tolerances and exemptions, 109 were tolerance extensions through crop groupings and 20 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 11 Federal Register notices and Reregistration Eligibility Documents (R.E.D.) establishing 12 new tolerance and exemptions and 8 reregistration approvals. Label amendments accounted for 12 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 1994, EPA approved crop group definitions representing 109 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 1994 in response to IR-4 petitions, 3 proposals for tolerances have been published for comment in the Federal Register and should become rules in 1995. 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 1994, IR-4 received responses from EPA to 6 petitions requesting additional data and/or information. These are shown in Attachment 7.

Data Package Development

During 1994, IR-4 drafted 52 regulatory data packages which are presently under review by registrants or EPA. These include 28 new tolerance petition requests, 6 data packages to support reregistrations, 7 major amendments to prior submitted data packages, and 11 packages to support label expansions. These are shown in Attachment 8.

Regulatory Documents in Preparation

Regulatory packages representing 108 new uses and reregistrations are currently in various stages of preparation.

ORNAMENTAL RESEARCH AND REGISTRATIONS:

During the 18 years of the IR-4 ornamental program, 11,757 Pesticide Clearance Requests have been received. There are presently 1006 researchable ornamental requests including 414 new requests added in 1994. IR-4 funded 424 ornamental research trials this year and prepared 5 registration packages containing 178 reports that were sent to registrants for labelling. These included 1 fungicide, 2 insecticides, 1 herbicide and 1 plant growth regulator. During the year, industry labelled 128 ornamental uses based on IR-4 data. These are shown in Attachment 10.

BIOPESTICIDE RESEARCH AND REGISTRATIONS:

IR-4 continues its commitment to developing data in support of alternative pest control products. With the addition of a coordinator for the IR-4 biologicals research program, IR-4 has expanded its original biorationals objective to include microbials, biochemicals, transgenics and "safer" pesticides.

In 1994, IR-4 continued its support of three ongoing projects: *Beauveria bassiana* for the control of the Red Imported Fire Ant; *Alternaria* spp. and *Fusarium tricinctum* for the control of dodder on cranberries; and a cell culture study to support the proposed exemption from the requirement of a tolerance for the Codling Moth Granulosis virus on apples, pears, plums, and walnuts. IR-4 also prepared two petitions requesting exemptions for *Flavobacterium balustinum* and *Trichoderma hamatum* for control of damping off and root rot pathogens of vegetable bedding plants in a disease suppressive potting mix. In response to an IR-4 petition, EPA approved an exemption from the requirement of a tolerance and full registration for *Pseudomonas fluorescens* strain NCIB 12089 (VICTUS[®]) on mushrooms for control of bacterial blotch. Refer to Attachment 11 for regulatory packages prepared in 1994.

QUALITY ASSURANCE:

The IR-4 Project 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 QAOs, 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.

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, 447 food use field trials scheduled by SAES cooperators, 129 by federal agricultural scientists and 64 by private sector researchers in cooperation with IR-4.

IR-4 continues to collaborate with the USDA-NAPIAP program on pesticide reregistration projects of common interest. In 1994, IR-4 identified 4 projects that required data beyond the scope of IR-4 but which would be eligible for research by SAES scientists under the NAPIAP program. IR-4 also collaborated with USDA-ARS and EPA in conducting a Good Laboratory Practice training program for 36 foreign regulators.

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. IR-4 personnel also met with representatives of the German government on four occasions to coordinate research and facilitate clearances for several pesticides of mutual interest on hops.

A meeting of the IR-4 Commodity Liaison Committee (CLC) was held coincident with the IR-4 Annual Meeting in March. The chair of the CLC was invited to attend each IR-4 Technical Committee meeting in 1994.

IR-4 sponsored a minor use IPM Workshop in conjunction with the Second National IPM Symposium. Proceedings of this workshop have been published. A National Food Use Workshop was attended by 118 public and private sector research personnel. This was the 17th 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 4363 food use clearances (1970 of which were obtained during the past ten years), 3225 ornamental registrations and, has supported research on 17 biopesticides which resulted in 10 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 1995:

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, 169 food use projects were selected for research in 1995 at the November IR-4 national research planning meeting. This represents 38% fewer studies compared to 1994 and reflects the reduced FY 95 budget, the 40% overall cost of meeting GLP requirements and a 60% increase in the cost of field studies due to the new EPA geographic requirements. The 1995 research program will enable IR-4 to complete about 100 clearance projects with emphasis on reregistrations. The program expects to accomplish its current reregistration commitments by December 1997.

The Strategic Plan projects an increased commitment to the clearance of biopesticides for minor uses. The Project has set aside \$500,000 to support research and registration on microbials, biochemicals, transgenics and "safer" pesticides for minor crops. Cooperative agreements have been prepared to support 4 biopesticide research projects with a goal of 11 projects in 1995. A biological pest control workshop will be held by IR-4, with cooperation from EPA, which will bring together public and private sector scientists to focus on increasing the number of registered biopesticides for minor crops and minor uses. The IR-4 Coordinator- Biopesticide Research has been selected to participate in the visiting scientist program with EPA-Division of Biopesticides and Pollution Prevention.

IR-4 will continue to address pest control needs of the \$8 billion "green industry". A survey of the industry and numerous contacts by the IR-4 Coordinator-Ornamentals has yielded a large number of conventional and biological pest control needs for nursery and greenhouse use. With an expanded cooperator base, the program expects to carry out research on 375 ornamental clearance projects in 1995 and submit data to support about 200 label expansions.

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

PUBLICATIONS:

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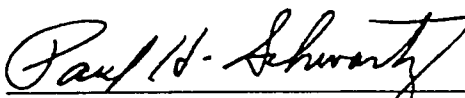
December 31, 1994



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

Approved:

1/25/95



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

1/20/95



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. J. Jordan, *U.S. Department of Agriculture*
Dr. A. Lauchli, *University of California, Davis*
Dr. D. Lund, *Rutgers University*
Dr. R. Plowman, *U.S. Department of Agriculture*
Dr. N. Thompson, *University of Florida, Chair*
Dr. R. Wyse, *University of Wisconsin*

Representing

USDA-CSREES
Western Region
Northeast Region
USDA-ARS
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. W. Wheeler, *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. W. Biehn, *Coordinator*
Dr. K. Dorschner, *Coordinator*
Mr. J. Frank, *Coordinator*
Dr. R. Guest, *National Director*
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Mrs. D. Infante, *Information Specialist*
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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:

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Mrs. J. Eato-Griffin, *Sec.*
Mrs. C. Ferrazoli, *Sec.*
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Dr. W. Wheeler, <i>Laboratory Director</i>	Southern Region
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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:

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Mr. H. Jamerson, *EPA-OPP-RD, Minor Use Officer*
Dr. M. Metzger, *EPA-OPP-HED CBII Liaison*
Mr. N. Somma, *NACA Representative*

Commodity Liaison Committee:

Mr. D. Ahrens, <i>Twin Garden Farms</i>	Harvard, IL
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* Chair

IR-4 Project/USDA Minor Use Program Quality Assurance Officers

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State and Federal IR-4 Liaison Representatives

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Dr. T. Lavy	AR
Dr. R. Leidy	NC
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Ms. M. Reiff	CA
Dr. J. Riesselman	MT
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 1994. 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. P. Kovach	NY
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Dr. R. Devlin	MA	Dr. A. Senesac	NY
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Dr. W. Mitchem	NC	Dr. R. Talbert	AR
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Dr. R. Ploetz	FL	Dr. G. Zehnder	AL

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Mr. M. Allan	CA	Dr. J. Klett	CA
Mr. D. Anderson	OR	Mr. P. Kloft	OR
Dr. M. Bari	CA	Dr. S. Mangini	CA
Mr. C. Bell	CA	Mr. B. McReynolds	OR
Dr. R. Burr	OR	Mr. W. Meeks	ID
Mr. J. Calkin	OR	Dr. G. Moller	ID
Dr. M. Campbell	CA	Mr. C. Mourer	CA
Mr. C. Collins	OR	Mr. W. Noel	MT
Dr. W. Cone	WA	Mr. R. Paden	AZ
Ms. L. Defoliart	CO	Dr. R. Parker	WA
Mr. J. DeFrancesco	OR	Dr. S. Peterson	CA
Dr. C. Elmore	CA	Dr. J. Pscheidt	OR
Ms. M. Ethridge	HI	Dr. A. Schreiber	WA
Mr. B. Fischer	CA	Dr. I. Tinsley	OR
Mr. V. Fisher	OR	Mr. S. West	AZ
Dr. D. Gubler	CA	Ms. K. Wilson	AZ

USDA-ARS

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

ATTACHMENT 3

Food Use Research Projects

Fungicides, Bactericides and Nematicides

NEW REGISTRATIONS

- Benomyl/Artichoke/PR 3879
- Benomyl/Bean (Lima)/PR 5512
- Benomyl/Collard/PR 3595
- Captan/Cherry/PR 5418
- Chlorothalonil/Asparagus/PR 0319
- Chlorothalonil/Mango/PR 2162
- Chlorothalonil/Mushroom/PR 6204
- Ethoprop/Carrot/PR 5490
- Ethoprop/Radish/PR 5731
- Fenamiphos/Bean (Lima)/PR 3180
- Fenamiphos/Bean (Snap)/PR 0888
- Fenamiphos/Blueberry/PR 2872
- Fenamiphos/Cucumber/PR 1231
- Fenamiphos/Onion (Dry Bulb/PR 2134
- Fenamiphos/Pea (Green)/PR 2490
- Fenamiphos/Squash/PR 3512
- Fosetyl-Al/Blueberry/PR 4937
- Fosetyl-Al/Macadamia/PR 3187
- Fosetyl-Al/Turnip (Roots & Tops)/PR 5085
- Iprodione/Arrugula/PR 3387
- Iprodione/Basil/PR 3388
- Iprodione/Clover/PR 5728
- Iprodione/Coriander/PR 3031
- Iprodione/Dill/PR 3232
- Iprodione/Mint/PR 2760
- Iprodione/Pistachio/PR 5391
- Iprodione/Spinach/PR 5346
- Iprodione/Watercress/PR 2097
- Mancozeb/Bean (Lima)/PR 4158
- Mancozeb/Bean (Snap)/PR 4143
- Mancozeb/Carrot/PR 3836
- Mancozeb/Ginseng/PR 0992
- Mancozeb/Sunflower/PR 1811
- Metalaxyl/Artichoke/PR 4979
- Metalaxyl/Carambola/PR 4939
- Metalaxyl/Kiwifruit/PR 3050
- Metalaxyl/Papaya/PR 5184
- Metalaxyl/Spinach/PR 5203
- Metalaxyl/Sugar Apple/PR 4940
- Metalaxyl+Copper/Arrugula/PR 5075
- Metalaxyl+Copper/Cabbage, Chinese (Bok Choy)/PR 2283
- Metalaxyl+Copper/Collard, Kale/PR 1696
- Metalaxyl+Copper/Greens (Mustard)/PR 5351
- Metalaxyl+Copper/Papaya/PR 5404
- Metalaxyl+Copper/Raspberry/PR 1169
- Metalaxyl+Copper/Swiss Chard/PR 5349
- Myclobutanil/Asparagus/PR 5414
- Myclobutanil/Blackberry/PR 5057
- Myclobutanil/Gooseberry/PR 5308
- Myclobutanil/Mint/PR 5409
- Myclobutanil/Raspberry/PR 5058
- Oxytetracycline/Apple/PR 4943
- PCNB/Radish/PR 0633
- PCNB/Cabbage, Chinese (Bok Choy)/PR 4044
- PCNB/Collard/PR 3460
- Triadimefon/Blackberry/PR 3018
- Triadimefon/Mayhaw/PR 4274

REREGISTRATIONS

- Benomyl/Spinach (Seed Trt)/PR 4077
- Captan/Broccoli (Plant Bed)/PR 4323
- Chlorothalonil/Papaya/PR 3678
- Ferbam/Cherry/PR 4085
- Ferbam/Guava/PR 4081
- Ferbam/Plum/PR 4478
- Ziram/Grape/PR 4116
- Ziram/Spinach/PR 4115

Herbicides and PGR's

NEW REGISTRATIONS

- 2,4-D (Amine)/Blueberry/PR 3085
- 2,4-D (Amine)/Raspberry/PR 2844
- Clethodim/Bean (Succulent)/PR 5205
- Clethodim/Cantaloup/PR 5225
- Clethodim/Carrot/PR 5217
- Clethodim/Celery/PR 5218
- Clethodim/Cranberry/PR 5358
- Clethodim/Cucumber/PR 5219
- Clethodim/Pea (Dry)/PR 5204
- Clethodim/Pea (Succulent)/PR 5202
- Clethodim/Pepper (Bell)/PR 5226
- Clethodim/Pepper (Non-Bell)/PR 5355
- Clethodim/Strawberry/PR 5230
- Clopyralid/Blackberry/PR 5148
- Clopyralid/Canola (Rapeseed)/PR 5125
- Clopyralid/Cherry/PR 3622
- Clopyralid/Pear/PR 3624
- Clopyralid/Plum/PR 3625
- Clopyralid/Raspberry/PR 5147
- Clopyralid/Strawberry/PR 5262
- DCPA/Chives/PR 3541
- DCPA/Parsley/PR 3000
- DCPA/Parsnip/PR 3612
- Fomesafen/Bean (Dry)/PR 5403
- Fomesafen/Bean (Snap)/PR 3472
- Glyphosate/Cantaloup/PR 1747
- Glyphosate/Cucumber/PR 1748
- Glyphosate/Squash/PR 1851
- Glyphosate/Strawberry/PR 1409
- Glyphosate/Tanier/PR 1634
- Glyphosate/Yam/PR 3695
- Linuron/Lupine/PR 1409
- Metolachlor/Bean (Snap)/PR 3222
- Metolachlor/Meadowform/PR 6068
- Metolachlor/Onion (Dry Bulb)/PR 5396
- Metolachlor/Pepper (Non-Bell)/PR 2986
- Metolachlor/Spinach/PR 1217
- Metolachlor/Sweetpotato/PR 5413
- Napropamide/Arrugula/PR 3374
- Napropamide/Sage/PR 2146
- Norflurazon/Leucaena/PR 5185
- Oryzalin/Hops/PR 5321
- Oxyfluorfen/Broccoli/PR 5256
- Oxyfluorfen/Cabbage/PR 5255
- Oxyfluorfen/Grass Seed Production/PR 3968
- Oxyfluorfen/Hops/PR 5199
- Oxyfluorfen/Pepper (Bell)/PR 4133
- Oxyfluorfen/Pepper (Chili)/PR 2125
- Paraquat/Broccoli/PR 1475
- Paraquat/Gourds, Edible/PR 3070
- Paraquat/Lettuce (Leaf)/PR 3506
- Paraquat/Onion (Dry Bulb)/PR 2983
- Paraquat/Pea (Succulent)/PR 5193
- Paraquat/Tanier/PR 4968
- Paraquat/Tomato/PR 5312
- Pendimethalin/Grapefruit/PR 5748
- Pendimethalin/Grasses/PR 4912
- Pendimethalin/Lemon/PR 5749
- Pendimethalin/Mint/PR 5523
- Pendimethalin/Onion (Green)/PR 5097
- Pendimethalin/Orange/PR 5732
- Pendimethalin/Tomato/PR 2741
- Prometryn/Dill/PR 1630
- Prometryn/Dill/PR 3040
- Prometryn/Parsley/PR 5160
- Pronamide/Marigold/PR 4148
- Pyridate/Mint/PR 3927
- Pyridate/Pea (Succulent)/PR 5295
- Sethoxydim/Parsley/PR 2350
- Sethoxydim/Persimmon/PR 3706
- Sethoxydim/Sage/PR 2067
- Thiobencarb/Cabbage/PR 2845
- Thiobencarb/Carrot/PR 2352
- Triclopyr/Cherry/PR 3641
- Triclopyr/Peach/PR 3642
- Triclopyr/Pear/PR 3643

Herbicides and PGR's

REREGISTRATIONS

- 2,4-D/Asparagus/PR 4090
- 2,4-D/Cherry/PR 4254
- 2,4-D/Grape/PR 4298
- 2,4-D/Pistachio/PR 4301
- 2,4-D/Plum/PR 4257
- 2,4-D/Potato/PR 4302
- Diuron/Asparagus/PR 5415
- Diuron/Banana/PR 5514
- Diuron/Blackberry/PR 3675
- Diuron/Blueberry/PR 5471
- Diuron/Currant/PR 5364
- Diuron/Olive/PR 5474
- Diuron/Pea (Winter)/PR 5508
- MCPB/Pea/PR 5470
- Oxyfluorfen/Cabbage/PR 5105
- Oxyfluorfen/Cauliflower/PR 4013
- Oxyfluorfen/Horseradish/PR 5738
- Oxyfluorfen/Onion (Dry Bulb)/PR 5739
- Sethoxydim/Raspberry/PR 5729

Insecticides and Rodenticides

NEW REGISTRATIONS

- Acephate/Lettuce (Leaf)/PR 2948
- Acephate/Lettuce (Leaf)/PR 5164
- Bifenthrin/Cauliflower/PR 5273
- Bifenthrin/Clover (Seed)/PR 2776
- Bifenthrin/Eggplant/PR 5401
- Bifenthrin/Grape/PR 5335
- Bifenthrin/Lettuce (Head)/PR 5274
- Bifenthrin/Pea (Succulent)/PR 5237
- Bifenthrin/Peanut/PR 5175
- Bifenthrin/Pepper (Bell)/PR 5281
- Bifenthrin/Pepper (Non-Bell)/PR 5280
- Bifenthrin/Tomato (GH)/PR 4868
- Carbaryl/Arrugula/PR 5209
- Carbaryl/Radicchio/PR 5498
- Carbaryl/Sapote/PR 5518
- Carbofuran (G)/Canola/PR 3163
- Chlorpyrifos/Bean (Snap)/PR 2393
- Chlorpyrifos/Crambe/PR 3607
- Chlorpyrifos/Grasses/PR 5370
- Chlorpyrifos/Kiwifruit/PR 5048
- Chlorpyrifos/Persimmon/PR 5197
- Chlorpyrifos/Sugar Apple/PR 3715
- Chlorpyrifos/Onion (Green)/PR 2971
- Cyromazine/Bean (Snap)/PR 3909
- Cyromazine/Pea (Southern)/PR 3906
- Diazinon/Chives/PR 3543
- Dimethoate/Blueberry/PR 0028
- Dimethoate/Canola/PR 5132
- Dimethoate/Cucumber/PR 0071
- Dimethoate/Onion (Green)/PR 3884
- Dimethoate/Persimmon/PR 5383
- Dimethoate/Radish/PR 5426
- Dimethoate/Squash (Summer)/PR 0095
- Dimethoate/Strawberry/PR 2619
- Esfenvalerate/Brussels Sprout/PR 1656
- Esfenvalerate/Cabbage, Chinese (Bok Choy)/PR 3161
- Esfenvalerate/Carambola/PR 3429
- Esfenvalerate/Kale/PR 2843
- Esfenvalerate/Kohlrabi/PR 3714
- Esfenvalerate/Mango/PR 1847
- Ethoprop/Hops/PR 2734
- Ethoprop/Pineapple/PR 2860
- Fenpropathrin/Cucumber/PR 2502
- Fenpropathrin/Squash/PR 2507
- Fluvalinate/Coffee/PR 4135
- Fonofos/Bluegrass/PR 4328
- Hexakis/Bean (Lima)/PR 4952
- Hexakis/Bean (Snap)/PR 4953
- Hexakis/Cassava/PR 2893
- Hexakis/Corn (Sweet)/PR 2248
- Hexakis/Hops/PR 5755
- Malathion/Sugar Apple/PR 3438
- Malathion/Sweetpotato/PR 3588
- Permethrin/Collard/PR 4884

Insecticides and Rodenticides

NEW REGISTRATIONS (CONTINUED)

- Permethrin/Papaya/PR 4123
- Phosmet/Blueberry/PR 5397
- Propargite/Bean (Snap)/PR 3662
- Propargite/Clover/PR 2765
- Propargite/Pea (Southern)/PR 3663
- Propargite/Pepper (Bell)/PR 2853
- Propargite/Raspberry/PR 3579
- Thiodicarb/Cranberry/PR 5380
- Thiodicarb/Turnip/PR 3056
- Zinc Phosphide/Potato/PR 6123

REREGISTRATIONS

- Azinphos-Methyl/Bean (Dry)/PR 4402
- Azinphos-Methyl/Bean (Snap)/
PR 4517
- Azinphos-Methyl/Cabbage/PR 4761
- Azinphos-Methyl/Celery/PR 4763
- Cryolite/Cranberry/PR 5416
- Diazinon/Asparagus/PR 4404
- Diazinon/Pea (Dry)/PR 4412
- Dimethoate/Turnip/PR 4451
- Malathion/Apple/PR 4768
- Malathion/Asparagus/PR 4770
- Malathion/Broccoli/PR 4776
- Malathion/Cabbage/PR 4778
- Malathion/Carrot/PR 4779
- Malathion/Flax/PR 4795
- Malathion/Guava/PR 4799
- Malathion/Mango/PR 4814
- Malathion/Mushroom/PR 4816
- Malathion/Okra/PR 4820
- Malathion/Orange/PR 5142
- Malathion/Papaya/PR 3727
- Malathion/Pea (Succulent)/PR 4823
- Malathion/Pear/PR 4827
- Malathion/Pineapple/PR 4830
- Malathion/Turnip/PR 4847
- Mevinphos/Parsley/PR 4141
- Parathion-Methyl (EC)/Melon/
PR 4897
- Parathion-Methyl (EC)/Pepper/

ATTACHMENT 4

New Tolerance, Exemption, Registration and Reregistration Approvals

Fungicides

PROJECT	DATE (FEDERAL REGISTER)	TYPE ACTION
• Benomyl/Avocado/PR 5163	9-8-94	Reregistration
• Benomyl/Dandelion/PR 5162	9-8-94	Reregistration
• Benomyl/Papaya/PR 4098	9-8-94	Reregistration
• Benomyl/Turnip Green/PR 3980	3-1-94	Label Amendment
• Captan/Blackberry/PR 4322	7-5-94	Label Amendment
• Captan/Pigeon Pea/PR 2729	1-2-94	Label Amendment
• Captan/Raspberry/PR 3953	7-5-94	Label Amendment
• Copper Hydroxide/Spinach/PR 172	5-9-94	Label Amendment
• Copper Hydroxide/Watermelon/PR 5290	5-9-94	Label Amendment
• Ferbam/Caneberry/PR 4981 (Includes Blackberry PR 3935 Loganberry Raspberry Youngberry)	7-5-94	Label Amendment
• <u>Pseudomonas fluorescens</u> /Mushroom/PR 44B	8-24-94	Exemption

Herbicides

• Diuron/Blueberry/PR 3544	Registration	Label Amendment
• Glyphosate/Cranberry/PR 3505	R.E.D.*	Reregistration
• Glyphosate/Leafy Vegetables/PR 3208	R.E.D.	Reregistration
PR 3209	R.E.D.	Reregistration
• Glyphosate/Mango/PR 3213	R.E.D.	Reregistration
• Linuron/Lupine (Grain, Forage, Hay)/PR 2369	11-2-94	Temporary Tolerance
• Metsulfuron Methyl/Sugarcane/PR 3887	3-24-94	New Tolerance

Insecticides & Rodenticides

• Bifenthrin/Hops/PR 3949	5-25-94	New Tolerance
PR 4866	9-7-94	New Tolerance
• Chlorpyrifos/Sugarcane/PR 3239	3-4-94	New Tolerance
• Cyromazine/Chinese Cabbage (Bok Choy)/ PR 2670	5-25-94	New Tolerance
• Cyromazine/Chinese Cabbage (Napa)/PR 2672 (Tolerance is for Chinese Cabbage)	5-25-94	New Tolerance
• Cyromazine/Chinese Mustard/PR 2671	5-25-94	New Tolerance
• Imidacloprid/Hop/PR 5367	6-28-94	Temporary Tolerance
• Malathion/Hop/PR 4800	EPA Opinion Letter 2-4-94	Reregistration

* Reregistration Eligibility Document

ATTACHMENT 5

Crop Group Definition Approvals

Oriental Radish (Roots and Tops) = Chinese Radish, Japanese Radish, Winter Radish, Daikon, Lobok, LoPak and other cultivars and/or hybrid of these. Accordingly, 12 potentially useful tolerances will be extended to include Oriental Radish. Federal Register date: 9-8-94.

Sudangrass (Seed Crop) = Sorghum (Grain)

Sudangrass (Forage and Fodder) = Sorghum (Forage and Fodder). Accordingly, 97 potentially useful tolerances have been extended to include sudangrass. Federal Register date: 3-4-94.

ATTACHMENT 6

Tolerance and Exemption Approvals Proposed

Fungicides

- Folpet/Avocado/PR 3677(Reregistration)

Herbicides

- Pronamide/Radicchio Greens/PR 4601
- Sodium Chlorate/Potato/PR 4386

ATTACHMENT 7

EPA Responses to IR-4 Petitions

- Benomyl/Artichoke/PR 3879
- CMGV/Apple, Pear, Raisin, Walnut/PR 1B
- DCPA/Parsley/PR 4005
- Myclobutanil/Strawberry/PR 4015
- Permethrin/Raspberry/PR 2564
- Propargite/Avocado/PR 2378

ATTACHMENT 8

Data Packages Completed

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

NEW TOLERANCES	STATUS	REREGISTRATIONS	STATUS
• Abamectin/Hop/PR 4019	E	• Captan/Blackberry & Raspberry/PR 4332, 3953	E
• Bifenthrin/Artichoke/PR 5145	M	• Captan/Pear/PR 4335	M
• Bifenthrin/Celery/PR 4945	M	• Dicofol/Blackberry & Raspberry/PR 4103, 4102	M
• Bifenthrin/Raspberry & Blackberry/PR 5003, 5004	M	• Linuron/Asparagus/PR 6241	M
• Chlorpyrifos/Currant/PR 5149 -	E	• Naled/Hops/PR 4110	E
• Chlorpyrifos/Olive/PR 3971	E	• Permethrin/Pepper (Bell)/PR 1357	E
• Chlorpyrifos/Red Clover/PR 5207	E		
• Clomazone/Bean (Snap)/PR 2707	M		
• Clomazone/Cucumber &	E	MAJOR AMENDMENTS TO TO PREVIOUSLY SUBMITTED DATA	
Summer Squash/PR 3571, 3903		• Chlorpyrifos/Olive/PR 3917	M
• Cypermethrin/Onion (Green)/PR 3963	M	• Clopyralid/Asparagus/PR 3115	M
• Dicofol/Fruiting Vegetables (Except cucurbits)/PR 3516	E	• Codling Moth Granulosis Virus/PR 1B	M
• Diflubenzuron/Range Grass/PR 757	M	• Fenamiphos/Melon/PR 887, 3511	M
• Dimethoate/Asparagus/PR 2457	E	• Permethrin/Raspberry/PR 2564	E
• Fenarimal/Filbert/PR 5012	M	• Propargite/Avocado/PR 2378	E
• Fosetyl-Al/Blueberry/PR 493	E	• Propiconazole/Mint/PR 4127	E
• Glyphosate/Mint/PR 1666	E		
• Imidaclopralid/Hop/PR 5369	E	REGISTRATIONS	
• Lactofen/Bean (Snap)/PR 3603	E	• Captan/Strawberry/PR 5326	M
• Linuron/Parsley/PR 3035	M	• Ferbam/Blackberry & Raspberry/PR 3935, 4181	S
• Metalaxyl/Caneberry/PR 5513	M	• Imazethpyr/Azuki Bean/PR 5183	M
• Metolachlor/Pepper (All)/PR 2986	E	• Metolachlor/Sweet Corn/PR 3223	M
• Norflurazon/Caneberry/PR 3233	E	• Oxyfluorfen/Banana/PR 2356	S
• Oxyfluorfen/Blackberry & Raspberry/PR 3485, 3486	E	• Ziram/Blackberry/PR 4117	M
• Paraquat/Lentils/PR 2302	E	• Ziram/Blueberry/PR 4745	M
• Pendimethalin/Carrot/PR 4084	M	• Ziram/Grape/PR 4116	M
• Permethrin/Celeriac/PR 3503	M	• Ziram/Pepper/PR 4088	M
• Propiconazole/Mushroom/PR 5056	E	• Ziram/Raspberry/PR 4118	M
• Vinclozolin/Cranberry/PR 4036	E	• Ziram/Tomato/PR 4089	M

ATTACHMENT 9

Regulatory Documents in Preparation

- 2,4-D/Apple/PR 4182
- 2,4-D/Hops/PR 5024
- 2,4-D/Peach/PR 4255
- Amitraz/Pecan/PR 3876
- Azinphos-Methyl/Cauliflower/4762
- Azinphos-Methyl/Broccoli/PR 4759
- Bentazon/Clover (Seed)/PR 1840
- Bifenthrin/Broccoli/PR 5272
- Bromoxynil/Grasses (Canary)/PR 4343
- Bromoxynil/Mint/PR 1291
- Captan/Spinach/PR 3975
- Captan/Tomato/PR 4337
- Carbaryl/Lychee/PR 5201
- Carbaryl/Pineapple/PR 5042
- Chlorpyrifos/Greens (Mustard)/PR 3669
- Chlorpyrifos/Hops/PR 2611
- Chlorpyrifos/Persimmon/PR 4976
- Clomazone/Watermelon/PR 3943
- Clopyralid/Cranberry/PR 3882
- Diazinon/Fig/PR 4101
- Dimethoate/Blackberry/PR 0159
- Dimethoate/Raspberry/PR 0158
- Dimethoate/Tomato/PR 3294
- Disulfoton/Collard/PR 2567
- Disulfoton/Greens (Mustard)/PR 2530
- Disulfoton/Turnip (Roots & Tops)/PR 2192
- Esfenvalerate/Artichoke/PR 3845
- Esfenvalerate/Cranberry/PR 2174
- Esfenvalerate/Endive/PR 2241
- Esfenvalerate/Kiwifruit/PR 3945
- Esfenvalerate/Kohlrabi/PR 3714
- Ethephon/Cranberry/PR 4461
- Ethephon/Fig/PR 4126
- Fenamiphos/Blueberry/PR 2872
- Fenamiphos/Calabaza/PR 3503
- Fenamiphos/Cucumber/PR 1231
- Fenamiphos/Squash/PR 3512
- Ferbam/Blueberry/PR 4212
- Ferbam/Cranberry/PR 4092
- Ferbam/Grape/PR 3934
- Fluazifop-P-Butyl/Pepper (Cherry)/PR 4136
- Fluazifop-P-Butyl/Pepper (Chili)/PR 4137
- Fluazifop-P-Butyl/Pepper (Non-Bell)/PR 4387
- Fluazifop-P-Butyl/Rhubarb/PR 2404
- Fomesafen/Bean (Snap)/PR 3472
- Fonofos/Cucumber/PR 3653
- Glyphosate/Pea (Pigeon)/PR 2029
- Glyphosate/Pineapple/PR 1554
- Hexakis/Artichoke/PR 4977
- Hexakis/Pepper (Bell)/PR 3585
- Iprodione/Apple/PR 5136
- Iprodione/Cabbage/PR 1972
- Linuron/Celeriac/PR 3557
- Linuron/Celery/PR 4936
- Malathion/Fig/PR 4793
- Malathion/Raspberry/PR 4835
- Malathion/Strawberry/PR 5152
- Metolachlor/Blackberry/PR 4994
- Metolachlor/Broccoli/PR 1526
- Metolachlor/Broccoli (Chinese)/PR 3247
- Metolachlor/Carrot/PR 2154
- Metolachlor/Daikon/PR 4348
- Metribuzin/Bermuda/PR 1936
- Myclobutanol/Bean (Snap)/PR 3966
- NAA/Almond/PR 3524
- NAA/Grape/PR 1219
- NAA/Plum/PR 3523
- NAA/Walnut/PR 3525
- Napropamide/Basil/PR 3439
- Napropamide/Daikon/PR 5133
- Napropamide/Dill/PR 4171
- Oryzalin/Banana/PR 1344
- Oxyfluorfen/Cantaloup/PR 3710
- Oxyfluorfen/Cucumber/PR 3711
- Oxyfluorfen/Squash (Summer)/PR 3712
- Paraquat/Artichoke/PR 2275
- Paraquat/Bean (Lima)/PR 3098

ATTACHMENT 9

Regulatory Documents in Preparation (Continued)

- Paraquat/Mayhaw/PR 5171
- Paraquat/Pea (Dry)/PR 3200
- Paraquat/Pea (Pigeon)/PR 3890
- Paraquat/Pepper/PR 4971
- Parathion-Methyl (EC)/Hops/PR 4142
- Pendimethalin/Grapefruit/PR 5748
- Permethrin/Collard/PR 0941
- Permethrin/Squash/PR 5127
- Phenmedipham/Cabbage/PR 4057
- Pronamide/Beet (Sugar)/PR 4074
- Pronamide/Chicory (Tops)/PR 5027
- Pronamide/Rhubarb/PR 3686
- Pronamide/Vetch/PR 6056
- Pyridate/Barbanzo/PR 3866
- Quizalofop/Mint/PR 2719
- Quizalofop/Pineapple/PR 3893
- Sethoxydim/Avocado/PR 3701
- Sethoxydim/Beet (Garden)/PR 5757
- Sethoxydim/Date/PR 3702
- Sethoxydim/Fig/PR 3703
- 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/Rutabaga/PR 2468
- Sethoxydim/Safflower/PR 2531
- Simazine/Mayhaw/PR 5170
- Triadimefon/Artichoke/PR 3530
- Triadimefon/Sugarcane/PR 5187

ATTACHMENT 10

Ornamental Pesticide Registrations

- Benefin+Oryzalin/Azalea (Rhododendron)/10982A
- Benefin+Oryzalin/Daylily/10951A, 10952A
- Benefin+Oryzalin/Oak/10976A
- Benefin+Oryzalin/Pine/10978A
- Benefin+Oryzalin/Pittosporum/10957A, 10958A
- Chlorothalonil/Begonia/02649A, 02650A
- Chlorothalonil/Caladium/02034A, 02708A
- Chlorothalonil/Conifer Seedbeds/02049A
- Chlorothalonil/Dieffenbachia/02954A, 02955A
- Chlorothalonil/Fatsia/01612A, 04852A
- Chlorothalonil/Fern/02162A
- Chlorothalonil/Ficus/02243A, 04862A
- Chlorothalonil/Hoya/05873A, 05874A
- Chlorothalonil/Impatiens/08618A
- Chlorothalonil/Magnolia/04876A
- Chlorothalonil/Marigold/02645A, 05897A
- Chlorothalonil/Narcissus/06764A
- Chlorothalonil/Palm (Areca)/01641A, 02389A
- Chlorothalonil/Pansy/01642A, 02390A, 02646A
- Chlorothalonil/Ornamental Peach/01887A
- Chlorothalonil/Peperomia/02948A, 02949A
- Chlorothalonil/Phlox/04887A, 07707A
- Chlorothalonil/Piggyback Plant/05862A, 05863A
- Chlorothalonil/Pilea/02942A, 02943A
- Chlorothalonil/Poinsettia/02457A, 07587A
- Chlorothalonil/Pothos/05879A, 05880A
- Chlorothalonil/Sansevieria/05827A, 05828A
- Chlorothalonil/Tulip/02986A
- Chlorothalonil/Velvet Plant/00848A, 04866A
- Chlorothalonil/Walnut/04818A, 09394A
- Chlorothalonil/Yucca/02780A, 04893A
- Chlorothalonil/Zebra Plant/02945A, 07638A
- Copper Hydroxide/Dogwood/02909A
- Copper Hydroxide/Dusty Miller/10892A, 10931A
- Copper Hydroxide/Elm/10879A
- Copper Hydroxide/Impatiens/10862A, 10903A
- Copper Hydroxide/Oleander/05931A, 10858A
- Copper Hydroxide/Fan Palm/10885A, 10925A
- Copper Hydroxide/Plantain Lily/10874A, 10915A
- Metolachlor/Aucuba*/05509A
- Metolachlor/Azalea* (Rhododendron)/06496A
- Metolachlor/Boxwood*/06499A
- Metolachlor/Campanula/10794A
- Metolachlor/Canna/09034A
- Metolachlor/Chrysanthemum (Daisy)/10792A
- Metolachlor/Coreopsis/10793A
- Metolachlor/Daylily/09035A
- Metolachlor/Euonymus*/07409A
- Metolachlor/Gardenia/06200A, 06511A*
- Metolachlor/Geum/10776A, 10787A
- Metolachlor/Holly*/06512A
- Metolachlor/Juniper*/06522A
- Metolachlor/Liriope*/06524A
- Metolachlor/Oak*/09065A
- Metolachlor/Pine/06442A, 06521A*
- Metolachlor/Pittosporum*/06534A
- Metolachlor/Viburnum*/06544A
- Metolachlor/Yew/09402A
- Metolachlor+Simazine/Douglas Fir/09638A
- Metolachlor+Simazine/Fir (Abies)/09637A
- Metolachlor+Simazine/Hemlock/00811A
- Metolachlor+Simazine/Holly*06703A
- Metolachlor+Simazine/Juniper*/06730A
- Metolachlor+Simazine/Magnolia/07808A
- Metolachlor+Simazine/Palm/07423A, 07420A*
- Metolachlor+Simazine/Pine/06563A, 07360A*, 06729A*
- Metolachlor+SimazineSpruce/09636A
- Pendimethalin/Acacia/08335A
- Pendimethalin/Alyssum/11007A, 10996A
- Pendimethalin/Bellflower/10999A, 10059A
- Pendimethalin/Chrysanthemum/11003A, 10992A
- Pendimethalin/Columbine/11164A, 11165A
- Pendimethalin/Coreopsis/11006A, 10995A
- Pendimethalin/Eucalyptus/11020A, 11017A

* Irrigation

ATTACHMENT 10

Ornamental Pesticide Registrations (Continued)

- Pendimethalin/Forsythia/09404A
- Pendimethalin/Foxglove/11160A, 11161A
- Pendimethalin/Gaillardia/11162A, 11163A
- Pendimethalin/Hemlock/09406A
- Pendimethalin/Leopards Bane/11166A,
11167A
- Pendimethalin/Leyland Cypress/11018A
- Pendimethalin/Ornamental Kale/11012A
- Pendimethalin/Pansy/11013A
- Pendimethalin/Petunia/11014A
- Pendimethalin/Sedum//11001A, 10990A
- Pendimethalin/Snapdragon/11016A
- Pendimethalin/Statice/11169A

ATTACHMENT 11

Biopesticide Research and Development

Microbial Pesticide Petitions and Petition Amendments Prepared and Submitted to EPA or the Registrant in 1994:

Codling Moth Granulosis Virus/Apples, Pears, Walnuts and Plums (Prunes):

In 1994, IR-4 prepared two amendments to the Codling Moth Granulosis Virus (CMGV) petition containing additional toxicology and product chemistry data. These additional data packages were forwarded to EPA in March, 1994 and November, 1994 and were in response to EPA's request for additional toxicology and product chemistry data.

***Flavobacterium balustinum* Strain 299/Vegetable Bedding Plants and *Trichoderma hamatum* Isolate 382/Vegetable Bedding Plants:**

In November 1994, IR-4 in cooperation with Ohio State University and Earthgro Inc. prepared two petitions requesting temporary exemptions from the requirements 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 have been reviewed by the registrant "Earthgro" and are scheduled to be submitted to EPA in January, 1995 to support an Experimental Use Permit Application for "Earthgro's Disease Suppressive Potting Mix" for use on ornamentals and vegetable bedding plants.