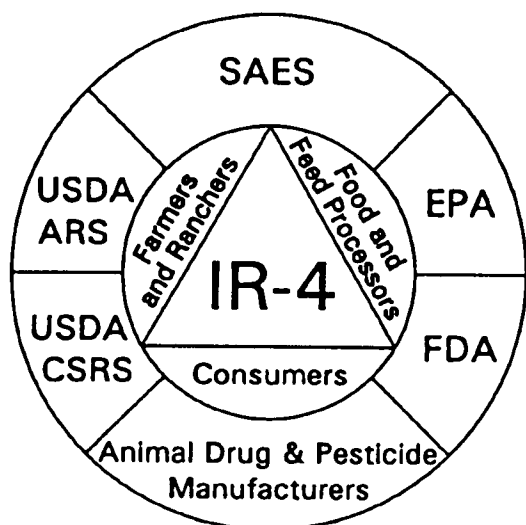

ANNUAL REPORT 1992



**A NATIONAL AGRICULTURAL
PROGRAM TO CLEAR PEST
CONTROL AGENTS AND
ANIMAL DRUGS FOR MINOR
USES**

**INTERREGIONAL RESEARCH
PROJECT NO. 4**

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

January 1, 1992-December 31, 1992

BACKGROUND

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/CSRS. In 1976, USDA/ARS established a companion minor use program to provide further support for the minor use effort. The objectives of the 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 (biorationals) for agricultural pest control. Also in 1982, objectives of the program were amended to include registration of animal health drugs for use on minor animal species.

With the passage of the 1988 amendments to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Project was challenged to support the reregistration of existing minor pesticide uses that are needed by the producers of minor agricultural commodities but for which specific data would not be developed by commercial registrants. Based on extensive surveys of the user community and product registrants, and through the use of priority setting workshops, IR-4 developed a strategic plan in 1990 to reregister up to 1000 existing minor crop uses, while continuing to develop data for new product registrations, by the 1997 reregistration deadline. This Annual Report highlights progress in 1992 toward achieving the objectives of the program to provide adequate crop protection for the \$24 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 and Animal Drugs for Minor Uses. January 1, 1992 to December 31, 1992

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 5336 IR-4 food-use requests, an increase of 170 over the 5166 requests reported in 1991. Of these, 1329 are researchable projects with 1023 representing requests for new uses and 306 representing reregistration requests. SAES and USDA-ARS cooperators scheduled research on 312 requested clearance projects which represented 647 field trials. Residue samples from 391 field trials went to SAES and USDA-ARS laboratories and samples from 60 field trials went to contract and agrichemical laboratories. Research protocols for 647 field trials and 604 residue evaluations were prepared or revised as required by EPA Good Laboratory Practice Standards. The pesticides/commodities researched in 1992 are shown in Attachment 3.

FOOD USE REGULATORY ACCOMPLISHMENTS:

The IR-4 Project was responsible for 120 pest control product clearances in 1992 compared to 122 in 1991. These consisted of completed projects providing data in support of tolerance petitions, exemptions from the requirement of a tolerance, reregistration data packages and label amendments. During the year, EPA published 10 Federal Register Final Rules establishing 36 new tolerances, exemptions, and reregistration approvals. These are shown in Attachment 4. In addition, 84 tolerance extensions were made possible by IR-4 petitions for crop group definitions. Crop group definitions are of value to minor crop agriculture since they provide for the extension of a tolerance or exemption for a pest control product from one crop to other closely related crops (see 40 CFR 180.1[h]). Thus, additional minor crops are included in the initial tolerance/exemption and are eligible for label registration by a commercial registrant. IR-4 activities to expand crop group definitions substantially leverages the number of pest control options available to producers of minor crops. Crop group definitions approved by EPA in 1992 in response to IR-4 petitions are shown in Attachment 5.

In addition to tolerances and exemptions approved by EPA in 1992 in response to IR-4 petitions, 9 proposals have been published in the Federal Register and are expected to be approved in 1993. These are shown in Attachment 6.

During 1992, IR-4 drafted 59 regulatory data packages. These included, 25 new tolerance petition requests, 3 data packages that request exemptions from the requirements of a tolerance, 7 data packages to support reregistrations, 8 major amendments to prior submitted data packages, 3 data packages to support crop group proposals and 13 data packages to support label expansions. These are shown in Attachment 7.

ORNAMENTAL RESEARCH AND REGISTRATIONS:

There are presently 820 researchable ornamental requests including 49 new requests added in 1992. During the 16 years the IR-4 Ornamentals Program has been in existence, IR-4 has undertaken more than 13,000 research trials and supported over 3600 registrations. In 1992, the IR-4 Project funded 387 ornamental research trials and prepared 3 registration packages (1 insecticide and 2 herbicides) containing 164 reports. These registration packages were sent to registrants for review and label expansion. Also during 1992, IR-4 data supported 116 new ornamental uses on pesticide labels. These are shown in Attachment 8.

BIORATIONAL PEST CONTROL RESEARCH AND REGISTRATIONS:

The IR-4 Biorational program was established in 1982 to aid in the registration of biological (microbial and biochemical) agents for control of economically important pests on minor crops. IR-4 funded two biorational research projects in 1992. One project, entitled "Bioherbicide for Control of Dodder", was conducted at the University of Florida. This project was a continuation of a research project initiated by IR-4 in 1991 and involves research on Alternaria spp. and Fusarium tricinctum for the control of dodder on cranberries and other crops. The second research project, also at the University of Florida, is entitled, "Microbial Control of the Red Imported Fire Ant with a Fungal Formulation of Beauveria bassiana." Also, EPA approved tolerance exemptions for gibberellic acid on watercress to enhance growth and Legendium giganteum on irrigated pastures, soybeans and rice to control floodwater mosquitoes. These are listed in Attachment 4. In 1992, IR-4 submitted three petitions to EPA requesting exemptions for microbial pest control agents. These are shown in Attachment 9.

ANIMAL DRUG RESEARCH AND DEVELOPMENT:

The IR-4 Animal Drug Program was added as a research objective of IR-4 in 1982. Since that date, 19 uses of drugs for minor use animal species have been cleared by FDA. These clearances have been published in the Federal Register and are listed in Attachment 10. Additionally, in 1992 8 projects, also listed in Attachment 10, are under review as Public Master Files (PMF) with the FDA-Center for Veterinary Medicine (CVM). Three are complete and the data will be filed with FDA-CVM; 20 are ongoing research projects.

PROGRAM COOPERATION AND COORDINATION:

The IR-4 Project has been referred to as "a prime example of Federal interagency cooperation in coordination with academic institutions, pharmaceutical industries and commodity interests to effectively meet the growing needs for registration of safe pesticides and drugs for minor crops and animals."

Indicative of the cooperative nature of the IR-4 Minor Use Program, 412 of the 647 food use trials conducted in 1992 were conducted by SAES cooperators, 185 by federal agricultural scientists and 50 by private sector researchers in cooperation with IR-4.

IR-4 has been collaborating with the USDA-NAPIAP program on pesticide reregistration projects of common interest. In 1992, IR-4 identified 7 projects that required data beyond the scope of IR-4 but which could be researched by SAES scientists with grant funds provided by the NAPIAP program.

IR-4 is actively involved in the USDA-CSRS Interagency Reregistration Task Force, the USDA Minor Use Working Group, and is a participant in the ESCOP Pest Management Strategies Subcommittee and the National Agricultural Chemicals Association Regulatory Subcommittee.

A meeting of the IR-4 Commodity Liaison Committee (CLC) was held coincident with the IR-4 Annual Meeting in April. The chair of the CLC attended each IR-4 Technical Committee meeting in 1992. IR-4 is currently working on recommendations of the CLC to improve the program's visibility and accessibility.

With grant support from EPA, IR-4 sponsored a National IR-4 Workshop in October which brought together state and federal liaison representatives from each state and region to review and prioritize requests for new pesticide uses, reregistrations and biological control agents for use on minor crops.

USEFULNESS OF THE FINDINGS:

In a June 1992 Briefing Report to the chairman of the U.S. House of Representatives Committee on Agriculture entitled, Pesticides: USDA's Research to Support Registration of Pesticides for Minor Use, the U.S. General Accounting Office stated that "if some high-priority [minor] uses are not registered or reregistered, growers, consumers and the environment could be adversely affected. Growers could lose income through reduction in crop value and quality and consumers could see higher prices, lower quality and less variety."

IR-4 is the principal public effort supporting the use of registered pesticides and biological pest control agents for use on minor food crops. Since the IR-4 project was initiated in 1963, the program has been responsible for data to support 4156 food use clearances, 3650 ornamental registrations and more recently, has supported research on 15 biorational research projects and 14 biorational clearances.

IR-4 relies on commodity producers, state and federal research scientists and extension personnel to suggest 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 funding support and scientific guidance for carrying out both field and laboratory research to develop data for the registration by the EPA of pest control products on a wide variety of commodities. 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 1993:

IR-4 will continue its mission to clear safe and effective pest control products for minor food crops and ornamentals, as well as animal health drugs for use on minor animal species.

Adequate funding continues to be a limiting factor to realizing the full potential of the program. Consequently, the primary focus of the IR-4 pest management program will continue to be directed toward the registration and reregistration of pesticides for use on food crops. The quantity of research carried out in 1993 will be commensurate with the funding capabilities of the program as indicated by the IR-4 Management and Budget Plan developed in 1992 by the IR-4 Technical Committee.

IR-4 has a continuing commitment to producing quality scientific data which fully meet EPA mandated Good Laboratory Practice Standards. To assure compliance in this area, the IR-4 Project will add a Quality Assurance Manager to the Headquarters staff and additional quality assurance personnel to each regional office staff.

IR-4 seeks to strengthen its program through emphasis on the development and registration of alternative pest control technology that is compatible with integrated pest management (IPM) programs applicable to minor food and ornamental crops. To this end, IR-4 will place greater emphasis on the Biorational Objective of the program by providing assistance for the clearance of biochemical and microbial pest control agents. IR-4 is seeking ways to cooperate with public and private research organizations in a partnership arrangement where the specialized capabilities of IR-4 can be utilized for the registration of pest control alternatives. In order to provide financial support to researchers conducting studies to further the development of these products, IR-4 has earmarked 15% of its Special Research Grant funds above base FY 92 funding for this purpose.

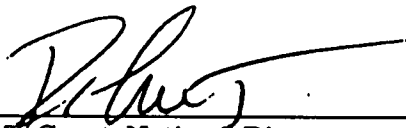
The IR-4 Project will continue to work with the floral and nursery crop producers in seeking to provide for the pest management needs of the \$8 billion "green" industry. IR-4 will conduct grower surveys to determine the need for both continued pesticide and biorational pest control registrations. IR-4 plans to sponsor a workshop to evaluate and prioritize these new needs together with existing registration requests and will work with the industry to maximize the research effort needed to produce data in support of registrations.

PUBLICATION:

Guest, R.T. et al, 1992 Pesticides: Minor Uses/Major Issues CAST Task Force Report CC 1992-2. Council for Agricultural Science and Technology, Ames, IA.

Markle, G.M. Editor, 1992 *IR-4 Newsletter* (Quarterly)

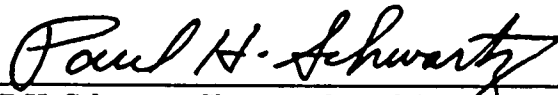
December 31, 1992



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

Approved:

✓



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

✓



R.K. Ringer, Chair, Technical Committee (Animal Drug)
National Coordinator (Animal Drug)
Michigan State University

✓



N.P. Thompson, Chair, Administrative Advisers
Interim Dean For Research
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 Service
U.S. Department of Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency, Office of Prevention, Pesticides and Toxic Substances
Food and Drug Administration, Center for Veterinary Medicine

PRINCIPAL LEADERS

Administrative Advisors:

Dr. G.M. Buening, *University of Missouri, Columbia*
Dr. J.P. Jordan, *U.S. Department of Agriculture*
Dr. A.E. Lauchli, *University of California, Davis*
Dr. D.B. Lund, *Rutgers University*
Dr. R.D. Plowman, *U.S. Department of Agriculture*
Dr. N.P. Thompson, *University of Florida, Chair*
Dr. R.E. Wyse, *University of Wisconsin*

Representing

Animal Drug Program
USDA-CSRS
Western Region
Northeast Region
USDA-ARS
Southern Region
Northcentral Region

Technical Committee (Pesticide):

Dr. R.T. Guest, *Rutgers University, National Director*
Dr. R.M. Hollingworth, *Michigan State University*
Prof. G.M. Markle, *Rutgers University, Executive Secretary*
Dr. J.V. Parochetti, *U.S. Department of Agriculture*
Dr. P.H. Schwartz, Jr., *U.S. Department of Agriculture, Chair*
Dr. T. Shibamoto, *University of California, Davis*
Dr. T.D. Spittler, *Cornell University, Geneva*
Dr. W.B. Wheeler, *University of Florida*

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

Technical Committee (Animal Drug):

Dr. J.G. Babish, *Cornell University*
Dr. A.L. Craigmill, *University of California, Davis*
Dr. R. E. Holland, *Michigan State University*
Dr. L.R. Miller, *USDA-CSRS*
Dr. R.K. Ringer, *Michigan State University, Chair and National Coordinator*
Dr. S.F. Sundlof, *University of Florida*

Northeastern Region
Western Region
Northcentral Region
USDA-CSRS
IR-4 Headquarters
Southern Region

SUPPORT GROUPS

Headquarters Technical Staff:

Mr. D. Baker, Jr., *EPA Liaison*
Dr. J. Baron, *National Coordinator*
Dr. W. Biehn, *Coordinator*
Dr. R. Guest, *National Director*
Mrs. D. Infante, *Information Specialist*
Dr. D. Kunkel, *Coordinator*
Mr. R. Libby, *Coordinator*
Prof. G. Markle, *Associate Director*
Dr. R. Ringer, *National Coordinator, Animal Drug Program*
Dr. D. Rickard, *Coordinator*
Mrs. P. Sarica, *Assistant Director for Administration*

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

The IR-4 Animal Drug Program is located at Michigan State University, Institute for Environmental Toxicology, East Lansing, MI 48824
(517) 336-2048 FAX: (517) 355-4603

Regional Technical Staff:

Dr. T. Spittler, <i>Laboratory Director</i>	Northeast Region
Mr. J. Martini, <i>Field Research Coordinator</i>	Northeast Region
Dr. P. Kovach, <i>Laboratory Coordinator</i>	Northeast Region
Dr. R. Hollingworth, <i>Laboratory Director</i>	Northcentral Region
Dr. S. Miyazaki, <i>Field Research Coordinator</i>	Northcentral Region
Dr. R. Leavitt, <i>Laboratory Coordinator</i>	Northcentral Region
Dr. W. Wheeler, <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
Dr. T. Shibamoto, <i>Laboratory Director</i>	Western Region
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. D. Baker, Jr., *EPA Liaison to IR-4, Chair*
Dr. M. Flood, *EPA-OPP-HED-CBI Liaison*
Mr. H. Jamerson, *EPA-OPP-RD, Minor Use Officer*
Mr. N. Somma, *NACA Representative*
Dr. E. Viera, *FDA/CVM Liaison to IR-4*

Commodity Liaison Committee:

Mr. D. Ahrens	Mr. L. Elworth	Mr. E. Kurtz	Mr. C. Regelbrugge
Mr. G. Allman	Dr. W. Ewart	Ms. L. Murphy	Mr. M. Sorbello, Jr
Dr. A. Bonanno	Ms. A. George	Mr. G. Obenauf	Mr. P. Traino
Mr. D. Botts	Mr. C. Kesner	Mr. R. Olszack	Mr. R. Wayne Zellers
Mr. J. Downing	Mr. T. Kodet	Mr. S. Rawlins	

State And Federal IR-4 Liason Representatives

Northeast Region

Dr. R. Ashley	CT	Dr. D. Rutz	NY
Dr. S. Whitney	DE	Dr. R. Mumma	PA
Dr. D. Demyers	DC	Dr. D. Wallace	RI
Dr. D. Yarborough	ME	Dr. A. Gotlieb	VT
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Dr. P. Bhowmik	MA	Dr. R. Webb	USDA-ARS MD
Dr. J. Bowman	NH	Dr. J. Locke	USDA-ARS MD
Dr. G. Ghidiu	NJ	Mr. J. Frank	USDA-ARS MD
Mr. J. Martini	NY	Dr. A. Herner	USDA-ARS MD

Northcentral Region

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Dr. D. Williams	IL	Dr. A. Waldron	OH
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Dr. B. Swanson	MN	Dr. C. Krause	USDA-ARS OH
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Dr. J. Nalewaja	ND	Dr. W. Doane	USDA-ARS IL

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Dr. T. Lavy	AR	Dr. C. Southards	TN
Dr. C. Meister	FL	Dr. R. Holloway	TX
Dr. K. Delaplane	GA	Dr. M. Weaver	VA
Dr. W. Nesmith	KY	Vacant	VI
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Ms. N. Acin	PR		

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Dr. P. Baker	AZ	Dr. J. Jenkins	OR
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Dr. R. Muniappan	GU	Dr. M. Ferrell	WY
Dr. M. Kawate	HI	Dr. R. Linderman	USDA-ARS OR
Dr. G. Carpenter	ID	Dr. H. Toba	USDA-ARS WA
Dr. G. Johnson	MT	Mr. C. Sell	USDA-ARS WA
Dr. L. English	NM	Dr. R. Boydston	USDA-ARS WA

ATTACHMENT 2

Field and Laboratory Research Cooperators

The IR-4 Project is grateful to the many agricultural scientist who participated in the field and laboratory research phases of the program in 1992. 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. A. Agnello	NY	Dr. B. Majek	NJ
Dr. E. Beste	MD	Dr. I. Merwin	NY
Dr. R. Bellinder	NY	Dr. J. Neal	NY
Dr. J. Bowman	NH	Mr. E. Plissey	ME
Dr. J. Devlin	MA	Dr. G. Porter	ME
Dr. C. Eckenrode	NY	Dr. D. Polk	NJ
Dr. R. Ellerbrook	NY	Dr. M. Pritts	NY
Dr. H. Forsythe	ME	Mr. J. Rabin	NJ
Dr. G. Ghidiu	NJ	Dr. A. Senesac	NY
Dr. B. Goulart	PA	Dr. J. Weaver	WV
Dr. S. Johnston	NJ	Dr. O. Wells	NH
Dr. J. Linduska	MD	Ms. A. Wise	NY
Mr. W. Lord	NH	Dr. D. Yarborough	ME

NORTHCENTRAL REGION

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Dr. L. Binning	WI	Dr. C. Marr	KS
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Ms. R. Feree	IL	Dr. D. Nielsen	OH
Dr. C. Finn	MO	Dr. E. Oelke	MN
Dr. J. Fleeker	ND	Dr. J. Parke	WI
Dr. S. Gorski	OH	Dr. D. Ramsdell	MI
Dr. R. Green	IN	Mr. N. Riveland	ND
Dr. G. Harvey	WI	Dr. W. Stevenson	WI
Dr. H. Hopen	WI	Dr. M. Weis	ND
Dr. J. Johnson	MI	Dr. S. Weller	IN
Dr. A. Jones	MI	Dr. R. Williams	OH
Dr. A. Keaster	MO	Dr. J. Wyman	WI
Dr. C. Koval	WI	Dr. A. York	IN
Dr. R. Latin	IN	Dr. B. Zandstra	MI

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Dr. D. Benson	NC	Dr. J. Dutcher	GA
Dr. T. Bewick	FL	Dr. J. Edelson	OK
Dr. M. Braverman	LA	Dr. P. Felker	TX
Dr. R. Chalfant	GA	Dr. E. French	FL
Dr. J. Crane	FL	Dr. R. Halloway	TX
Dr. T. Crocker	FL	Dr. M. Harris	TX

(SOUTHERN REGIONS CONT'D)

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Mr. R. Ingles	PR	Dr. J. Pena	FL
Dr. R. Johnson	FL	Dr. W. Porter	LA
Dr. A. Keinath	SC	Dr. G. Reighard	SC
Dr. T. Kucharek	FL	Dr. L. Rolston	LA
Dr. M. Kurtz	MS	Dr. G. Saxena	FL
Dr. J. Latimer	GA	Dr. P. Schultz	VA
Dr. T. Lavy	AK	Dr. W. Shamiyeh	TN
Dr. G. Lawrence	MS	Dr. J. Sheets	NC
Dr. L. Liu	PR	Dr. W. Skroch	NC
Dr. S. Locasio	FL	Dr. K. Sorensen	NC
Dr. C. Mainland	NC	Dr. W. Stall	FL
Dr. F. Matta	MS	Dr. J. Stimac	FL
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Dr. C. Mullins	TN	Dr. R. Young	VA
Dr. J. Norcini	FL	Dr. G. Zahnder	AL

WESTERN REGION

Dr. H. Agamalian	CA	Mr. D. Hulst	CA
Dr. K. Al-Khatib	WA	Dr. M. Kawate	HI
Mr. D. Anderson	OR	Ms. K. Kelly	CA
Dr. L. Askham	WA	Dr. M. Kilby	AZ
Dr. B. Bailey	CA	Dr. J. Klett	CA
Dr. M. Bari	CA	Mr. P. Kloft	OR
Dr. C. Bell	CA	Mr. S. Koike	CA
Dr. G. Bender	CA	Mr. B. Lewis	NM
Dr. R. Burr	OR	Dr. B. McReynolds	OR
Mr. R. Collins	OR	Mr. M. Morris	OR
Dr. W. Cone	WA	Mr. R. Mullin	CA
Dr. G. Crabtree	OR	Dr. J. Palumbo	AZ
Dr. J. DeFrank	HI	Dr. B. Parker	WA
Dr. M. Davis	CA	Dr. K. Patten	WA
Dr. B. Dean	WA	Mr. M. Qualls	WA
Dr. K. Dorschner	ID	Mr. L. Santo	HI
Dr. C. Elmore	CA	Dr. T. Schultz	WA
Mr. V. Fisher	OR	Dr. C. Shanks	WA
Mr. B. Fischer	CA	Dr. D. Stoffel	CA
Dr. G. Grove	WA	Ms. B. Teviotdale	CA
Dr. D. Gubler	CA	Dr. R. William	OR
Mr. R. Hale	CA		

USDA-ARS

Ms. S. Benzen	CA	Mr. S. Flanagan	TX
Dr. R. Boydston	WA	Mr. J. Frank	MD
Dr. L. Chandler	GA	Dr. N. Glaze	GA
Mr. R. Coleman	TX	Dr. H. Harrison	SC
Mr. B. Davis Jr.	SC	Dr. A. Johnson	GA
Dr. J. Duffus	CA	Dr. C. Krause	OH
Mr. C. Yonce	GA	Dr. R. Linderman	OR

(USDA-ARS CONT'D)

Dr. J. Locke MD
Mr. H. McDaniel OR
Dr. J. Payne GA
Dr. J. Schalk SC
Dr. L. Schreiber OH
Dr. B. Smith MS

Mr. C. Tappan OH
Dr. H. Toba WA
Mr. T. Treat WA
Dr. L. Wax IL
Mr. W. Wright GA

ATTACHMENT 3

Food Use Research Projects

Fungicides, Bactericides and Nematicides

NEW REGISTRATIONS

- Benomyl/Non-bell Pepper/PR 2031
- Captan/Dry bulb Onion/PR 4992
- Captan/Ginseng/PR 2526
- Captan/Parsley/PR 2442
- Chlorothalonil/Ginseng/PR 988
- Chlorothalonil/Pistachio/PR 5196
- Fenamiphos/Kiwifruit/PR 2735
- Fenamiphos/Lima Bean/PR 3180
- Fenamiphos/Strawberry/PR 3026
- Fosetyl AL/Blueberry/PR 4937
- Fosetyl AL/Turnip/PR 5085
- Imazalil/Mango/PR 5047
- Iprodione/Apple/PR 5136
- Iprodione/Arrugula/PR 3387
- Iprodione/Basil/PR 3388
- Iprodione/Celery/PR 2092
- Iprodione/Chives/PR3390
- Iprodione/Coriander/PR 3031
- Iprodione/Dill/PR 3232
- Iprodione/Leek/PR 2406
- Iprodione/Marjoram/PR 3393
- Iprodione/Mint/PR 2760
- Iprodione/Radish/PR 1975
- Iprodione/Sage/PR 3395
- Iprodione/Sweet Potato/PR 5131
- Iprodione/Watercress/PR 2097
- Mancozeb/Ginseng/PR 992
- Metalaxyl/Blackberry/PR 3078
- Metalaxyl/Kenaf/PR 4859
- Metalaxyl/Spinach/PR 5203
- Methyl bromide/Taro/PR 3885
- Myclobutanil/Raspberry/PR 5058
- Myclobutanil/Snapbean/PR 3966
- Myclobutanil/Strawberry/PR 4015
- Oxytetracycline/Apple/PR 4943
- PCNB/Collards/PR 3460
- PCNB/Mustard Greens/PR 4983
- Propiconazole/Mushroom/PR 5056
- Triadimefon/Blackberry/PR 3018
- Triadimefon/Blueberry/PR 3657
- Triademefron/Raspberry/PR 3495
- Triforine/Asparagus/PR 3468
- Triforine/Okra/PR 1782
- Vinclozolin/Green Onion/PR 1446

REREGISTRATIONS

- Benomyl/Mustard Greens/PR 4097
- Captan/Cabbage/PR 4325
- Captan/Lettuce/PR 3168
- Captan/Pepper/PR 3974
- Captan/Raspberry/PR 3953
- Captan/Spinach/PR 3975
- Captan/Tomato/PR 4337
- Captan/Turnip/PR 4338
- Captan/Watermelon/PR 4339
- Chlorothalonil/Mint/PR 4087
- Ferbam/Blueberry/PR 4212
- Ferbam/Cherry/PR 4085
- Ferbam/Plum/PR 4478
- Ferbam/Raspberry/PR 4981
- Ziram/Blackberry/PR 4117
- Ziram/Blueberry/PR 4745
- Ziram/Bell Pepper/PR 4088
- Ziram/Grape/PR 4116
- Ziram/Raspberry/PR 4118
- Ziram/Tomato/PR 4089

Herbicides and PGR's

NEW REGISTRATIONS

- 2,4-D/Hop/PR 5024
- 2,4-D/Wild Rice/PR 1015
- Clethodim/Dry Pea/PR 5204
- Clethodim/Succulent Bean/PR 5205
- Clethodim/Succulent Pea/PR 5202
- Clomazone/Broccoli/PR 3569
- Clomazone/Muskmelon/PR 4047
- Clomazone/Snap Bean/PR 2707
- Clomazone/Watermelon/PR 3943
- Clopyralid/Asparagus/PR 3115
- Clopyralid/Canola/PR 5125
- Clopyralid/Peach/PR 3624
- Clopyralid/Pear/PR 3624
- Clopyralid/Strawberry/PR 3689
- Clopyralid/Strawberry/PR 5262
- Cyanazine/Kenaf/PR 4048
- DCPA/Asparagus/PR 1548
- DCPA/Coriander/PR 2999
- DCPA/Daikon/PR 2692
- DCPA/Fennel/PR 3611
- DCPA/Parsley/PR 3000
- Diuron/Blueberry/PR 3544
- Ethalfluralin/Kenaf/PR 4858
- Ethephon/Blueberry/PR 3877
- Ethephon/Peach/PR 3920
- Glyphosate/Coriander/PR 3554
- Glyphosate/Hop/PR 4162
- Glyphosate/Prickly Pear Cactus/PR 4062
- Glyphosate/Rhubarb/PR1112
- Imazethapyr/Leaf Lettuce/PR 4157
- Lactofen/Succulent Pea/PR 4889
- Lactofen/Tomato/PR 4163
- Linuron/Fennel/PR 3608
- Linuron/Horseradish/PR 3609
- Linuron/Lupine/PR 5134
- Metolachlor/Blackberry/PR 2617
- Metolachlor/Blueberry/PR 2616
- Metolachlor/Bok Choy/PR 2256
- Metolachlor/Chinese Broccoli/PR 3247
- Metolachlor/Chinese Mustard/PR 3248
- Metolachlor/Collard/PR 1216
- Metolachlor/Pigeon Pea/PR 3437
- Metolachlor/Radish/PR 2988
- Metolachlor/Raspberry/PR 3497
- Metolachlor/Snap Bean/PR 3222
- Metolachlor/Sweet Corn/PR 3223
- Metolachlor/Watermelon/PR 3522
- Napropamide/Arrugula/PR 3374
- Napropamide/Chinese Mustard/PR 3250
- Napropamide/Coriander/PR 3377
- Napropamide/Daikon/PR 3253
- Napropamide/Dill/PR 3378
- Napropamide/Leek/PR 3379
- Napropamide/Rosemary/PR
- Napropamide/Summer Savory/PR 3466
- Napropamide/Tarragon/PR 2148
- Napropamide/Thyme/PR 2149
- Oxyfluorfen/Bell Pepper/PR 4133
- Oxyfluorfen/Blackberry/PR 3615
- Oxyfluorfen/Brussels Sprout/PR 5123
- Oxyfluorfen/Chives/PR 3572
- Oxyfluorfen/Clover/PR 2738
- Oxyfluorfen/Eggplant/PR 4134
- Oxyfluorfen/Hop/PR 5199
- Oxyfluorfen/Raspberry/PR 3486
- Oxyfluorfen/Raspberry/PR 3616
- Oxyfluorfen/Strawberry/PR 3443
- Oxyfluorfen/Sugarcane/PR 4980
- Paraquat/Artichoke/PR 2275
- Paraquat/Calabaza/PR 3926
- Paraquat/Collards/PR 3095
- Paraquat/Dry Pea/PR 3200
- Paraquat/Edible Gourds/PR 3070
- Paraquat/Eggplant/PR 2977
- Paraquat/Endive/PR 928
- Paraquat/Green Onions/PR 2984
- Paraquat/Head Lettuce/PR 2979
- Paraquat/Leaf Lettuce/PR 3506
- Paraquat/Lentil/PR 2302
- Paraquat/Melon/PR 1476
- Paraquat/Okra/PR 1913
- Paraquat/Southern Pea/PR 3097
- Paraquat/Succulent Pea/PR 5193
- Paraquat/Summer Squash/PR 2982
- Paraquat/Turnip Greens/PR 2981
- Paraquat/Watermelon/PR 2976
- Pendimethalin/Garlic/PR 4146
- Pendimethalin/Grasses/PR 4912
- Pendimethalin/Leek/PR 4578
- Pendimethalin/Mint/PR 3888
- Prometryn/Fennel/PR 2480
- Pronamide/Blackberry/PR 3201
- Pronamide/Cranberry/PR 3152
- Pronamide/Dandelion/PR 3488
- Pronamide/Grass Seed/PR 5109
- Quizalofop/Pineapple/PR 3893
- Sethoxydim/Artichoke/PR 2708
- Sethoxydim/Basil/PR 2063
- Sethoxydim/Chives/PR 2064
- Sethoxydim/Coriander/PR 4931

(NEW REGISTRATIONS, CONT'D)

- Sethoxydim/Daikon/PR 2470
- Sethoxydim/Dill/PR 2065
- Sethoxydim/Endive/PR 2349
- Sethoxydim/Marjoram/PR 2066
- Sethoxydim/Okra/PR 339
- Sethoxydim/Rosemary/PR 2796
- Sethoxydim/Sage/PR 2067
- Sethoxydim/Tarragon/PR 2794
- Sethoxydim/Thyme/PR 2795
- Sethoxydim/Upland Cress/PR 3568
- Thifensulfuron-methyl/Flax/PR 4879
- Thifensulfuron-methyl/Safflower/PR 3454
- Thiobencarb/Broccoli/PR 2846
- Thiobencarb/Cabbage/PR 2845
- Triclopyr/Cherry/PR 3641
- Triclopyr/Peach/PR 3642
- Triclopyr/Pear/PR 3643
- Triclopyr/Plum/PR 3644
- Trifluralin/Dill/PR 1444
- Trifluralin/Kohlrabi/PR 1044
- Trifluralin/Rutabaga/PR 1047

REREGISTRATIONS

- 2,4-D/Apple/PR 4182
- 2,4-D/Asparagus/PR 4096
- 2,4-D/Blueberry/PR 4295
- 2,4-D/Cherry/PR 4254
- 2,4-D/Cranberry/PR 4297
- 2,4-D/Pear/PR 4256
- 2,4-D/Potato/PR 4302
- Bromoxynil/Canary Grass/PR 4343
- Bromoxynil/Mint/PR 1291
- Ethephon/Cranberry/PR 4461
- Ethephon/Fig/PR 4126
- Ethephon/Guava/PR 4463
- Napropamide/Marjoram/PR 3440
- Napropamide/Mint/PR 3441
- Oxyfluorfen/Cabbage/PR 5105
- Oxyfluorfen/Cauliflower/PR 4013

Insecticides and Bird Repellents

NEW REGISTRATIONS

- Abamectin/Eggplant/PR 3114
- Abamectin/Summer Squash/PR 5034
- Acephate/Kenaf/PR 4621
- Azinphos-methyl/Kiwifruit/PR 4096
- Bacillus thuringiensis/Pigeon Pea/PR 2812
- Bifenthrin/Artichoke/PR 5145
- Bifenthrin/Cabbage/PR 5176
- Bifenthrin/Peanut/PR 5175
- Bifenthrin/Succulent Pea/PR 5237
- Carbaryl/Basil/PR 2597
- Carbaryl/Basil/PR 3720
- Carbaryl/Canola/PR 5200
- Carbaryl/Ginseng/PR 2524
- Carbaryl/Lychee/PR 5201
- Carbaryl/Pineapple/PR 5042
- Chlorpyrifos/Asparagus/PR 3581
- Chlorpyrifos/Grape/PR 4011
- Chlorpyrifos/Mustard Greens/PR3669
- Chlorpyrifos/Persimmon/PR 4976
- Chlorpyrifos/Red Clover/PR 5207
- Chlorpyrifos/Red Currant/PR 5149
- Chlorpyrifos/Southern Pea/PR 868
- Cyromazine/Dry Bulb Onion/PR 4949
- Cyromazine/Lima Bean/PR 3908
- Cyromazine/Snap Bean/PR 3909
- Diazinon/Chive/PR 3543
- Diazinon/Pistachio/PR 3143
- Dicofol/Pepino/PR 3516
- Disulfoton/Collard/PR 2567
- Disulfoton/Kale/PR 4966
- Esfenvalerate/Artichoke/PR 3845
- Esfenvalerate/Kale/PR 2843
- Esfenvalerate/Spinach/PR 1658
- Esfenvalerate/Onion/PR 1652
- Esfenvalerate/Strawberry/PR 2014
- Fonofos/Watermelon/PR 3655
- Hexakis/Artichoke/PR 4977
- Hexakis/Blueberry/PR 2145
- Hexakis/Hop/PR 3848
- Hexakis/Lima Bean/PR 4952
- Hexakis/Raspberry/PR 1295
- Hexakis/Snap Bean/PR 4953

(NEW REGISTRATIONS CONT'D)

- Hexakis/Southern Pea/PR 4954
- Imidacloprid/Bell Pepper/PR 5182
- Imidacloprid/Cucumber/PR 5181
- Imidacloprid/Melons/PR 5180
- Imidacloprid/Summer Squash/PR 5179
- Imidacloprid/Tomato/PR 5178
- Malathion/Sugar Apple/PR 3438
- Methomyl/Cardoon/PR 3195
- Methomyl/Chinese Mustard/PR 5071
- Methomyl/Kohlrabi/PR 5173
- Methomyl/Pigeon Pea/PR 3266
- Methyl Anthranilate/Blueberry/PR 5028
- Methyl Anthranilate/Cherry/PR 5026
- Methyl Anthranilate/Grape/PR 5029
- Oxamyl/Melon/PR 4606
- Oxamyl/Tomato/PR3751
- Permethrin/Basil/PR 2820
- Permethrin/Blueberry/PR 2383
- Permethrin/Bok Choy/PR 2771
- Permethrin/Celeriac/PR 3563
- Permethrin/Chives/PR 3291
- Permethrin/Collards/PR 3566
- Permethrin/Coriander/PR 3290
- Permethrin/Dill/PR 2307
- Permethrin/Kale/PR 2996
- Permethrin/Marjoram/PR 3289
- Permethrin/Mustard Greens/PR 3099
- Permethrin/Non-bell Pepper/PR 2518
- Permethrin/Rosemary/PR 3288
- Permethrin/Sage/PR 3287
- Propargite/Bell Pepper/PR 2853
- Propargite/Edible Podded Pea/PR 2954
- Propargite/Eggplant/PR 2955
- Propargite/Southern Pea/PR 3663
- Propargite/Tomato/PR 2562
- Thiodicarb/Bok Choy/PR 3058
- Thiodicarb/Collard/PR 5099
- Thiodicarb/Sweet Potato/PR 3907
- Thiodicarb/Turnip/PR 3056

REREGISTRATIONS

- Azinphos-methyl/Blackeye Pea/PR 4926
- Carbaryl/Chestnut/PR 5108
- Diazinon/Fig/PR 4101
- Malathion/Blackberry/PR 4774
- Malathion/Broccoli/PR 4776
- Malathion/Cabbage/PR 4778
- Malathion/Celery/PR 4781
- Malathion/Chestnut/PR 4783
- Malathion/Collard/PR 4785
- Malathion/Flax/PR 4795
- Malathion/Fig/PR 4793
- Malathion/Lentil/PR 4807
- Malathion/Macadamia/PR 4812
- Malathion/Melon/PR 4815
- Malathion/Mustard Greens/PR 4817
- Malathion/Okra/PR 4820
- Malathion/Peach/PR 4826
- Malathion/Peppermint/PR 4829
- Malathion/Raspberry/PR 4835
- Malathion/Spearmint/PR 4841
- Malathion/Spinach/PR 4842
- Malathion/Strawberry/PR 5152
- Malathion/Succulent Pea/PR 4823
- Malathion/Turnip/PR 4847
- Malathion/Walnut/PR 4851
- Malathion/Watercress/PR 4852
- Malathion/Watermelon/PR 4853
- Permethrin/Bell Pepper/PR 1357
- Permethrin/Cucumber/PR 5126
- Permethrin/Squash/PR 5127

ATTACHMENT 4

New Tolerance, Exemption and Reregistration Approvals

Fungicides

PROJECT	DATE	TYPE ACTION
• Chlorothalonil/Edible Gourds/PR 3861	1/15/92	New Tolerance
• Fosetyl AL/Ginseng/PR 4093	5/28/92	New Tolerance
• Mancozeb/Edible Gourds/PR 2689	1/15/92	New Tolerance

Herbicides and Plant Growth Regulators

• 2,4-D/Soybean/PR1167	8/19/92	New Tolerance
• Clomazone/Sweet Potato/PR3380	12/16/92	Reregistration
• Fluazifop/Endive/PR3462	1/17/92	Reregistration
• Fluazifop/Macadamia/PR3431	1/17/92	Reregistration
• Fluazifop/Rhubarb/PR3146	1/17/92	Reregistration
• Fluazifop/Sweet Potato/PR2328	1/17/92	Reregistration
• Fluazifop/Tobasco Pepper/PR 2947	1/17/92	Reregistration
• Gibberellic Acid/Watercress/PR1946	5/28/92	Exemption
• Glyphosate/Pomegranate/PR 4993	5/28/92	New Tolerance
• Napropamide/Basil/PR1570	1/17/92	Reregistration
• Napropamide/Rosemary/ PR 1829	1/17/92	Reregistration
• Napropamide/Summer Savory/PR 1628	1/17/92	Reregistration
• Oryzalin/Guaya/PR 1346	12/16/92	New Tolerance
• Oryzalin/Papaya/PR1410	12/16/92	Reregistration
• Oxyfluorfen/Cocoa Bean/PR3589	8/5/92	New Tolerance
• Oxyfluorfen/Garbanzo Bean/PR4014	8/5/92	New Tolerance

Insecticides

• Fonofos/Banana/PR 1297	11/12/92	New Tolerance
• Fonofos/Plantain/PR1297	11/12/92	New Tolerance
• <u>Lagenidium giganteum/</u> Grass forage; Grass hay; Rice grain; Rice straw; Soybean hay; Wild rice/PR 25B Soybean seed; Soybean forage;	11/12/92	Exemption
• Methidathion/Atemoya/PR 3141	7/15/92	New Tolerance
• Methidathion/Custard Apple/PR 3137	7/15/92	New Tolerance
• Methidathion/Sugar Apple/PR 3137	7/15/92	New Tolerance
• Methidathion/Sweet Sop/PR3131	7/15/92	New Tolerance
• Permethrin/Cantaloupe/PR1730	1/17/92	Reregistration
• Permethrin/Eggplant/PR 1259	6/8/92	Reregistration
• Permethrin/Horseradish/PR 1387	1/17/92	Reregistration

ATTACHMENT 5

Crop Group Definition Approvals

- Lettuce - Define lettuce for regulatory tolerance purposes to include head and leaf lettuce. Leaf lettuce is further defined as Cos (romaine) and butterhead varieties. Accordingly, 28 new potentially useful tolerances are extended to Cos (romaine) lettuce.
- Melon - Revise the existing definition for regulatory tolerance purposes to cover muskmelons, watermelons and their hybrids.
- Muskmelons- Define muskmelon for regulatory tolerance purposes to be Cucumis melon (includes true cantaloupe, cantaloupe, casaba, Santa Claus melon, crenshaw melon, honeydew melon, honey balls, Persian melon, golden pershaw melon, mango melon, pineapple melon and snake melon). Accordingly 26 new potentially useful tolerances are extended to Santa Claus melon, golden pershaw melon, mango melon, pineapple melon and snake melon.
- Squash, summer- Define summer squash for regulatory tolerance purposes as fruit of the gourd (Cucurbitaceae) family that are consumed in an immature state and 100% of the fruit is edible either cooked or raw. Once picked it cannot be stored, has soft rind which is easily penetrated and if seeds were harvested, they would not germinate. Accordingly, 25 new potentially useful tolerances are extended to Cucurbita pepo (i.e. crookneck squash, straightneck squash, scallop squash and vegetable marrow); Lagenaria spp. (i.e., spaghetti squash, hyotan, cucuzza); Luffa spp. (i.e. hechima, Chinese okra); Momordica spp. (i.e., bittermelon, balsam pear, balsam apple, Chinese cucumber).
- Sugar Apple- Define sugar apple for regulatory tolerance purposes to include Annona squamosa (sugar apple, sweetsop, anon) and its hybrid A. squamosa x A. cherimoya (atemoya) and A. reticulata (custard apple). Accordingly 2 potentially useful tolerances are extended to sweetsop, anon, atemoya, and custard apple.
- Rapeseed - Define rapeseed for regulatory purposes to include canola and crambe. Accordingly 3 potentially useful tolerances will be extended to canola and crambe.

ATTACHMENT 6

Tolerance Approvals Proposed

Fungicides

- Metalaxyl/Ginseng/PR 4616
- Metalaxyl/Cranberry/PR 3458

Herbicides

- Clomazone/Winter Squash/PR 3684
- Oryzalin/Coffee/PR 2261

Insecticides

- Esfenvalerate/Bok Choy/PR 4035
- Esfenvalerate/Sweet Potato/PR 1655
- Esfenvalerate/Cardoon/PR 3428

Bactericides

- Oxytetracycline/Tomato/PR 2723
- Oxytetracycline/Cherry/PR 775

ATTACHMENT 7

Data Packages Completed

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

NEW TOLERANCES	STATUS	TOLERANCE EXEMPTIONS	STATUS
• Acephate/Leaf Lettuce/PR 5164	E	• Codling Moth Granulosis Virus/ Apple, Pear, Walnut, Plum/PR 1B	E
• Azinphos-methyl/Pome Fruit/ Group PR 4272	E	• <u>Legendium giganteum</u> /Grass	E
• Chlorothalonil/Filbert/PR 4055	E	• <u>Pseudomonas fluorescens</u> /Mushroom/ PR44B	E
• Chlorpyrifos/Sugarcane/PR 3239	M		
• Clomazone/Cabbage/PR 3570	M		
• Cyfluthrin/Dry Hop/PR 4120	E		
• Cyfluthrin/Fresh Hop /PR 4120	E		
• Linuron/Lupine/PR 2369	E		
• Mancozeb/Cucurbit Vegetable/ PR 2689, 4165	E		
• Metalaxyl/Kiwifruit/PR 3050	E		
• Metsulfuron/Sugarcane/PR3887	E		
• Napropamide/Sweet Potato/ PR 3938	E		
• Norflurazon/Hop(spent)/PR 4095	E		
• Oxyfluorfen/Blackberry/ PR 3485	M		
• Oxyfluorfen/Grass Seed/ PR 3968	E		
• Oxyfluorfen/Raspberry/PR 3486	M		
• Pendimethalin/Marigold/PR 2788	M		
• Phorate/Hops(dried & spent)/ PR 3575	E		
• Pronamide/Stone Fruit/PR 5286	M		
• Sethoxydim/Asparagus/PR 2202 & 4009	E		
• Sethoxydim/Carrot/PR 2046	E		
• Sethoxydim/Parsley(dried)/PR 2350	E		
• Sethoxydim/Parsley(fresh)/PR 2350	E		
• Sodium Chlorate/Potato/PR 4386	E		
• Triadimefon/Artichoke/PR 4274	E		
		REGISTRATIONS	
		• Captan/Caneberry/PR 3953	S
		• Captan/Pigeon Peas/PR 2729	M
		• Clomazone/Sweet Potato/PR 3386	S
		• Fluazifop/Kenaf/PR 3955	M
		• Glyphosate/Chestnut/PR 3948	M
		• Glyphosate/Endive/PR 3552	M
		• Metolachlor/Kenaf/PR 3956	M
		• MSMA/Kenaf/PR 3957	M
		• Pendimethalin/Kenaf/PR 3959	M
		• Quizalofop/Kenaf/PR 4051	M
		• Sethoxydim/Kenaf/PR 4052	M
		• Trifluralin/Eggplant/PR 550	M
		• Trifluralin/Kenaf/PR 3960	M
		MAJOR AMENDMENTS TO PREVIOUSLY SUBMITTED DATA	
		• Chlorothalonil/Mushroom/PR 237	E
		• Clopyralid/Asparagus/PR 3115	M
		• Clopyralid/Mint/PR 2632	E
		• Esfenvalerate/Artichoke/PR 3845	E
		• Malathion/Atemoya/PR 3942	E
		• Metsulfuron/Sugarcane/PR 3387	E
		• Propiconazole/Mint/PR 4127	E
		• <u>Pseudomonas fluorescens</u> /Mushroom/ PR44B	E
		CROP GROUPS	
		All pesticides/Japanese Radish, Daikon & Lobok	E
		All pesticides/Onion (dry)=shallots	E
		All pesticides/Sorghum (grain)= sudangrass (seed crop)	E
REREGISTRATIONS			
• Benomyl/Spinach seed/PR 4077	M		
• Chlorpyrifos/Onion/PR 5186	M		
• Diazinon/Blueberry/PR 3853	E		
• Diazinon/Mushroom/PR 2614	E		
• Naled/Hop/PR 4110	M		
• Norflurazon/Hops/PR 4075	E		
• Phorate/Hops(fresh)/PR3575	E		

ATTACHMENT 8

Ornamental Pesticide Registrations

- Oryzalin/Bellflower/07177A & 09147A
- Oryzalin/Bleeding Heart/10296A
- Oryzalin/Campanula/10722A
- Oryzalin/Cleyera/08818A
- Oryzalin/Coreopsis/10721A
- Oryzalin/Daylily/07174A
- Oryzalin/Dogwood/09647A
- Oryzalin/Gardenia/01171A
- Oryzalin/Geum/10715A
- Oryzalin/Linden/09650A & 10472A
- Oryzalin/Oak/09058A
- Oryzalin/Orange Ornamental/04629A
- Oryzalin/Pine/02242A
- Oryzalin/Pittosporum/047171A
- Oryzalin/Protea/10534A
- Oryzalin/Shasta Daisy/10720A
- Oryzalin/Snapdragon/06130A
- Oryzalin/Sumac/05346A
- Oryzalin/Sweet William/06094A
- Oryzalin/Yarrow/ 07183A & 10714A
- Oxadiazon/Ash/02305AA
- Oxadiazon/Chrysanthemum/05568A
- Oxadiazon/Crape Myrtle/01477A
- Oxadiazon/Daisy/07046A & 07047A
- Oxadiazon/Elm/01483A
- Oxadiazon/Heather/05221A
- Oxadiazon/Nandina/06129A
- Oxadiazon/Oleander/0760A
- Oxadiazon/Pachysandra/00563A & 03975A
- Oxadiazon/Palm/07394A
- Oxadiazon/Podocarpus/06830A
- Oxadiazon/Pomegranate/01669A
- Oxadiazon/Poplar//01476A
- Oxadiazon/Russian Olive/00409A
- Oxadiazon/Sedum/01678A
- Oxadiazon/Sumac/01681A
- Pendimethalin/Achillea Millifolium/10994A & 11005A
- Pendimethalin/Bermudagrass/9654A
- Pendimethalin/Coreopsis Lanceolata/10995A & 11006A
- Pendimethalin/Dusty Miller/11009A
- Pendimethalin/Forsythia/940A
- Pendimethalin/Gazania/11168A
- Pendimethalin/Hemlock/9406A
- Pendimethalin/Marigold/11011A
- Pendimethalin/Periwinkle/11015A
- Pendimethalin/Yew/9413A
- Prodiamine/Acuba/6609A & 6610A
- Prodiamine/Arborvitae/5359A-5792A & 6509A
- Prodiamine/Azalea/6601A & 6602A
- Prodiamine/Barberry/7822A
- Prodiamine/Bermudagrass/9654A
- Prodiamine/Boxwood/6593A & 6594A
- Prodiamine/Cleyera/6615A & 6616A
- Prodiamine/Cotoneaster/7371A
- Prodiamine/Crabapple Ornamental/7372A
- Prodiamine/Crape Myrtle/328A
- Prodiamine/Dogwood/6617A & 6618A
- Prodiamine/English Ivy/6619A & 6620A
- Prodiamine/Euonymus/6605A & 6606A
- Prodiamine/Forsythia/6611A & 6612A
- Prodiamine/Gardenia/6603A & 6604A
- Prodiamine/Hemlock/7373A
- Prodiamine/Holly/6474A & 7363A
- Prodiamine/Honeysuckle/5235A
- Prodiamine/India Hawthorne/9656A
- Prodiamine/Jasmine/7823A
- Prodiamine/Juniper/6473A & 7364A
- Prodiamine/Liriope/6607A & 6608S
- Prodiamine/Maple/7374A
- Prodiamine/Leatherleaf Fern/8027A & 8032A
- Prodiamine/Oak/7375A
- Prodiamine/Photinia/6600A
- Prodiamine/Pine/6623A & 6624A
- Prodiamine/Pitosporum/6613A & 6614A
- Prodiamine/Podocarpus/6621A & 6622A
- Prodiamine/Privet/6596A
- Prodiamine/Pyracantha/909A & 5238A
- Prodiamine/Rhododendron/6597A & 6598A
- Prodiamine/Russian Olive/327A
- Prodiamine/Viburnum/6798A & 6598A
- Prodiamine/Yew/6496A-4522A-5285A & 5797A
- Sethoxydim/Coreopsis lanceolata/10696A & 10733A
- Sethoxydim/Gardenia/09002A

ATTACHMENT 9

Biorational Pest Control Research and Development

Microbial Pesticide Petitions Submitted to EPA in 1992:

Lagenidium giganteum/Rice, Soybeans, Irrigated Pastures:

In January 1992, IR-4 in cooperation with the California Department of Health Services submitted a petition to EPA requesting an exemption from the requirement of tolerance for the fungus, Lagenidium giganteum on rice, soybeans and irrigated pastures where floodwater mosquitos are a problem.

The tolerance exemption for the above use was established in the 11/12/92 Federal Register. Registration of this use is expected in the near future.

Pseudomonas fluorescens strain NCIB 12089/Mushrooms:

In 1991, IR-4 was approached by Sylvan Foods to assist in clearing a strain of Pseudomonas fluorescens for control of bacterial blotch on mushrooms. A commercial product, known as "Conquer," is marketed for this purpose in Australia and New Zealand. IR-4 and a representative from Sylvan Foods met with EPA personnel to discuss procedure for achieving an exemption for this biocontrol product, with USDA-APHIS to determine the need for an import license for the commercial product.

In June 1992, IR-4 in cooperation with Mauri Laboratories of New Zealand and Sylvan Foods submitted a petition to EPA requesting a temporary exemption from the requirements of a tolerance for Pseudomonas fluorescens strain NCIB 12089 for the control of bacterial blotch of cultivated mushrooms. Based on the data in this petition, Sylvan Foods, Inc. has an Experimental Use Permit application pending at EPA.

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

In October 1992, IR-4 in cooperation with the University of California and the Association for Sensible Pest Control Inc. submitted a sixteen volume petition to EPA requesting an exemption from the requirement of a tolerance for the Codling Moth Granulosis Virus. The University of California is the registrant.

ATTACHMENT 10

Animal Drug Program

Public Master Files Published in the Federal Register:

PMF#	DISEASE/SPECIES	DRUG	DATE
3543	E. Protozoan/Shrimp	Formalin	05/06/91
3857	Gapeworm/Pheasants	Thiabendazole	02/22/84
3883	G.I. Parasite/Goats	Ivermectin	03/24/89
3887	Coccidiosis/Pheasants	Amprolium	12/24/84
3895	Warbles/Reindeer	Ivermectin	12/24/84
5012	Coccidiosis/Goats	Decoquate	02/18/87
5014	Coccidiosis/Quail	Monensin	04/14/87
5020	Coccidiosis/Quail	Salinomycin	03/21/89
5028	Gaffkemia/Lobsters	Oxytetracycline	01/13/86
5042	Coccidiosis/Rabbits	Lasalocid	03/15/90
5055	Coccidiosis/Goats	Monensin	12/19/86
5056	Enteric Septicemia of Catfish/Catfish	Sulfadimethoxine and Ormetoprim	04/16/86
5071	Lungworms/Bighorn Sheep	Fendbendazole	01/14/89
5117	G.I. Parasites/Goats	Levamisole HCL	9/08/89
5118	G.I. Parasites/Goats	Fendbendazole	04/03/91
5178	Ulcerative Enteritis/Quail	Bacitracin MD	02/22/88
5258	Coccidiosis/Sheep	Decoquate	09/28/90
5307	Ear Mites/Ranch Foxes	Ivermectin	11/29/91
5366	G.I. Parasites/Goats	Morantel Tartrate	11/02/92

Public Master Files Under Review by FDA-CVM:

5059	Hypodermosis/American Bison	Ivermectin	North Central
5157	Coccidiosis/Chukar Partridges	Sulfadimethoxine and Ormeroprim	Northeastern
5206	Bacterial Pneumonia/Sheep	Sulfamethazine	Western
5316	Bacterial Pneumonia/Goats	Oxytetracycline LA-200	Western
5321	Bacterial Pneumonia/Sheep	Oxytetracycline LA-200	Western
5429	Coccidiosis/Chukar Partridges	Lasalocid	Northeastern
5331	Mastitis/Goats	Procaine Penicillin G. /Novobiocin	Western
5433	Bacterial Pneumonia/Sheep	Amoxicillin	Western

Public Master Files in Preparation

INAD	DISEASE/SPECIES	DRUG	IR-4 REGION
4447	Bacterial Pneumonia/Goats	Amoxicillin	Western
4543	Liver Flukes/Goats	Clorsulon	Southern

Investigated New Animal Drug Data Under Investigation

6013	Bacterial Kidney Disease/Salmonids	Erythromycin	Western
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