

ANNUAL REPORT OF COOPERATIVE REGIONAL
RESEARCH PROJECTS

IR-4

JANUARY 1 to DECEMBER 31, 1982

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1. PROJECT: IR-4 - A National Agricultural Program; Clearances of Crop Protection Chemicals and Biologics and Animal Drugs for Minor or Special Uses.

2. COOPERATING AGENCIES AND PRINCIPAL LEADERS:

PROJECT PERSONNEL

Administrative Advisory Committee (AA)

Dr. J.P. Mahlstedt, Iowa State University, Chairman	Represents Northcentral Region
Dr. H.D. Brown, Rutgers University (to 1 SEP 82)	Northeastern Region
Dr. T.R. Kinney, ARS Administrator	USDA-ARS
Dr. R.H. Kupelian, IR-4 National Director	IR-4 HQ, Rutgers University
Dr. W.I. Thomas, CSRS Administrator	USDA-CSRS
Dr. I.J. Thomason, University of California (to 30 JUN 82)	Western Region
Dr. N.P. Thompson, University of Florida	Southern Region
Dr. D.E. Rolston, University of California (from 1 JUL 82)	Western Region
Dr. R.T. Ross, Designee to the Administrator	USDA-ARS
Dr. G.F. Walton, Rutgers University (from 2 SEP 82)	Northeastern Region

Technical Representative Committee (TR)

Dr. P.H. Schwartz, Jr., USDA-ARS/Beltsville, Chairman (Staff Scientist, Pesticide Impact Assessment Staff)	USDA-ARS
Dr. R.H. Kupelian, Rutgers University, Executive Secretary (National Director IR-4 Project)	National
Dr. J.B. Bourke, Cornell University/Geneva (Northeastern IR-4 Regional Pesticide Lab. Director)	Northeastern Region
Dr. K.P. Dorschner, USDA-CSRS	USDA-CSRS (Pesticides)
Dr. Fumio Matsumura, Michigan State University (Northcentral IR-4 Regional Pesticide Lab Director)	Northcentral Region
Dr. J.N. Seiber, University of California (Western IR-4 Regional Pesticide Lab Director)	Western Region
Dr. H.S. Teague, USDA-CSRS	USDA-CSRS (Animal Drugs)
Dr. W.B. Wheeler, University of Florida (Southern IR-4 Regional Pesticide Lab Director)	Southern Region

Consultants Committee

Mr. H.L. Jamerson, EPA-OPP-RD, Minor Uses Officer
Dr. H.J. Korp, EPA-OPP (to 18 AUG 82)
Mr. R.J. Otten, NACA Representative (to 22 NOV 82)
Dr. R.E. Ridsdale, NACA Representative (from 23 NOV 82)
Mr. D.R. Stubbs, EPA-OPP-RD

Environmental Protection Agency (EPA) Advisors

Mr. D.M. Baker, Jr., EPA Minor Uses Liaison Officer
Ms. F.S. Bishop, EPA-OPP-RD-PCB, Chief
Mr. D.D. Campt, EPA-OPP-RD, Director
Mr. J.G. Touhey, EPA-OPP-BFSD, Director

Food and Drug Administration (FDA) Advisors

Dr. S.F. Andres, FDA-BF
Dr. D.P. Ducharme, FDA-BVM-DDAS, Director

National Headquarters Staff

National Headquarters Staff located at the New Jersey Agricultural Experiment Station, Cook College, Rutgers University, New Brunswick, NJ 08903

Dr. R.H. Kupelian, National Director	Dr. W.L. Biehn Assistant Coordinator
Mr. G.M. Markle, National Coordinator and Recording Secretary to the Project	Dr. M.E. Burt, Assistant Coordinator
Dr. J.E. Elson, Associate Coordinator	Mrs. P.A. Sarica, Administrative Assistant
Dr. R.T. Guest, Associate Coordinator	Mrs. D.K. Infante, Information Specialist

IR-4 REGIONAL COORDINATORS AND
STATE LIAISON REPRESENTATIVES

CROP PROTECTION CHEMICALS (Pesticides and Biologics)

IR-4's field research personnel includes (I) a Regional Field Research Coordinator and Laboratory Residue Analysis Coordinator for each of the four regions, i.e. Northeastern, Southern, Northcentral and Western, (II) four USDA-ARS scientists per region representing the disciplines of entomology, plant pathology, weed science and pesticide residue and metabolism chemistry, and (III) an IR-4 state liaison representative for each of the 50 states and the U.S. territories including the District of Columbia, Guam, Puerto Rico and Virgin Islands. The 55 IR-4 State Liaison Representatives are scientists appointed by the Directors of their respective State Agricultural Experiment Stations (SAES) to define the crop pest and livestock disease control technology needs of the farmers, growers, ranchers and home owners in their representative states with respect to the production of foods (plants and animals), fibers, feeds, ornamentals, nursery stock, forest products and furbearing animals.

ANIMAL DRUGS

On September 15, 1982 the Committee of Nine officially approved the addition of an animal drug clearance program to coordinate with the above administrative and research structure as a Project objective. Add-on personnel includes (IV) a Regional AD-HOC Drug Advisory Staff member for each of the four regions appointed by the pertinent SAES Director; (V) a Regional Animal Drug Coordinator for each of the four regions appointed by the respective regional Administrative Advisor and Technical Committee Representative and a combination Drug Advisor/Coordinator for USDA-ARS; and (VI) a Veterinarian and Secretary at IR-4 HQ.

The names and affiliations of the field research personnel described above and the location of the four regional pesticide laboratories and associated USDA-ARS laboratories are shown below. Regional Coordinators are physically located at their respective regional pesticide laboratories.

IR-4 ADMINISTRATIVE ADVISORS, REGIONAL LABORATORY DIRECTORS, REGIONAL COORDINATORS, SUPERVISORY CHEMISTS, STATE LIAISON REPRESENTATIVES, & USDA-ARS REGIONAL REPRESENTATIVES

NAME	STATE	TELEPHONE	SPECIALTY AREA
<u>Northeastern Region</u>			
Dr. Grant F. Walton	Administrative Advisor	(201) 932-9447	Soil Science
Dr. John B. Bourke	Regional Lab. Director	(315) 787-2281	Chemistry
Dr. Paul B. Baker	Regional Coordinator	(315) 787-2327	Entomology
Dr. Terry Spittler	Supervisory Chemist	(315) 787-2283	Chemistry
Dr. David A. Kollas	CT	(203) 486-3435	Pomology
Dr. David A. Kollas	DE	(202) 486-3435	Pomology
Dr. James McDonald	DC	(202) 282-7372	Horticulture
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Dr. James J. Linduska	MD	(301) 742-8788	Entomology
Dr. Charles F. Brodeur	MA	(617) 295-2212	Entomology
Dr. James Bowman	MI	(603) 862-1159	Entomology
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Dr. Ralph O. Humma	PA	(814) 863-0844	Entomology
Mr. J. Lincoln Pearson	RI	(401) 792-2358	Horticulture
Dr. George B. MacCollom	VT	(802) 556-2626	Entomology
Dr. Oscar E. Schubert	WV	(304) 293-6023	Weed Science
Dr. Ralph E. Webb	MD, USDA-ARS	(301) 344-2269	Entomology
Dr. Julius Feldmesser	MD, USDA-ARS	(301) 344-3662	Neurology/ Plant Pathology
Mr. J. Ray Frank	MD, USDA-ARS	(301) 663-7132	Weed Science
Dr. Kenneth R. Hill	MD, USDA-ARS	(301) 344-2495	Residue Chemistry

North Central Region

Dr. John P. Mahlstedt	Administrative Advisor	(515) 294-4762	Horticulture
Dr. Fumio Matsumura	Regional Lab. Director	(517) 353-9430	Entomology
Dr. Satoru Miyazaki	Regional Coordinator	(517) 353-9497	Plant Pathology & Entomology
Dr. Richard Leavitt	Supervisory Chemist	(517) 353-6377	Analytical Chem.
Dr. Richard S. Favett	IA	(515) 294-1160	Weed Science
Dr. Herbert J. Hopson	IL	(317) 333-1967	Horticulture
Dr. Paul C. Pecknold	IN	(317) 494-4628	Plant Pathology
Dr. Don Cress	KS	(913) 532-5891	Entomology
Dr. Satoru Miyazaki	MI	(517) 353-9497	(See above)
Dr. Leonard B. Hertz	MI	(612) 373-1103	Horticulture
Dr. Delbert D. Hemphill	MO	(314) 882-7511	Hort., Plant Physiology
Dr. John D. Malewaja	ND	(701) 237-7971	Weed Science
Dr. Roger Gold	NE	(402) 472-1446	Entomology
Dr. Acie Waldron	OH	(614) 422-7541	Entomology (Chem. Control)
Mr. Leon J. Wraga	SD	(605) 688-5121	Agronomy, Weed & Plant Science
Dr. John Wedberg	WI	(608) 262-3226	Entomology
Dr. David E. Reed	IN, USDA-ARS	(812) 882-4942	Entomology
Dr. Charles Krause	OH, USDA-ARS	(614) 363-1129	Plant Pathology/Neurology
Dr. Loyd M. Wax	IL, USDA-ARS	(217) 313-1277	Weed Science
Dr. William H. Dome	IL, USDA-ARS	(309) 685-4011	Physical Chem.

National Headquarters Staff (201) 932-9575

The following National Headquarters Staff are located at the New Jersey Agricultural Experiment Station, Cook College, Rutgers University, New Brunswick, NJ 08903.

Dr. R. H. Kupelian	National Director	Dr. R. T. Guest	Associate Coordinator
Dr. W. L. Biehn	Assistant Director	Mrs. L. Harvey	Secretary
Dr. H. E. Burt	Assistant Coordinator	Mrs. D. Infante	Information Specialist
Ms. Y. Colon	Secretary	Mr. G. M. Markle	National Coordinator & Recording Secretary
Dr. J. E. Eison	Associate Coordinator	Mrs. P. A. Sarica	Administrative Assistant
Mrs. S. Ford	Secretary		

STATE

Southern Region

Dr. Neal P. Thompson	Administrative Advisor	(904) 392-1784	Plant Physiology
Dr. Willis B. Wheeler	Regional Lab. Director	(904) 392-1978	Biochemistry
Dr. Charles W. Heister	Regional Coordinator	(904) 392-1978	Plant Pathology
Dr. Fromode Bardalaye	Supervisory Chemist	(904) 392-1978	Res. Chemistry
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Dr. Terry L. Lavy	AR	(501) 575-3955	Weed Science
Dr. Sam S. Fluker	FL	(904) 392-4721	Entomology
Dr. Emmett D. Harris	GA	(404) 542-1765	Entomology
Dr. Chris M. Christensen	KY	(606) 258-5955	Entomology
Dr. John S. Rouseff	LA	(504) 388-6074	Entomology
Dr. William W. Neel	MS	(601) 325-3243	Entomology
Dr. T. Jack Sheets	NC	(919) 137-3391	Weed Science
Dr. O. Norman Nesheim	OK	(405) 624-5531	Entomology/Plant Pathology
Mr. Rafael Montalvo-Zapata	PR	(809) 767-9705	Chemistry
Dr. William Dubose	SC	(803) 656-3111	Entomology
Mrs. Nancy Taylor	TX	(615) 974-1138	Plant Pathology
Dr. Rodney L. Holloway	TX	(713) 845-7026	Entomology
Dr. Robert Pienkowski	VA	(703) 961-6614	Entomology
Mr. Walter I. Knusenberger	Virgin Islands	(809) 778-0246	Pest Management
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Dr. Wilmer Rohde	GA, USDA-ARS	(912) 386-3514	Residue Chemistry

Western Region

Dr. Dennis Rolston	Administrative Advisor	(916) 752-2113	Soil Science
Dr. James Seiber	Regional Lab. Director	(916) 752-1142	Chemistry
Mr. Harold G. Alford	Regional Coordinator	(916) 752-7010	Entomology
Dr. Thomas Archer	Supervisory Chemist	(916) 752-1142	Chemistry
Dr. Jeff Conn	AZ	(907) 479-7614	Weed Science
Dr. George W. Ware	AZ	(602) 626-1151	Entomology & Pest Residues
Mr. Harold G. Alford	CA	(916) 752-7010	(See above)
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Dr. John W. Hylin	HI	(808) 948-8352	Biochemistry
Dr. Gene P. Carpenter	ID	(208) 885-6595	Entomology
Dr. William McColium	MT	(406) 994-3515	Plant Protection & Pest Management
Dr. Ellis Huddleston	NH	(505) 646-3225	Entomology
Dr. Harry G. Smith	NV	(702) 784-6911	Ent. & Parasitology
Dr. James M. Witt	OR	(503) 754-2564	Ag. Chem. & Toxicology
Mr. Howard Deer	UT	(801) 750-1598	Pest. & Toxic. Substances
Mr. Richard C. Maxwell	WA	(509) 335-2368	Entomology
Mr. Everett Spackman	WY	(307) 766-4261	Entomology
Mr. Harrison Dooley	OR, USDA-ARS	(503) 757-4445	Plant Pathology
Dr. Alex G. Ogg, Jr.	WA, USDA-ARS	(509) 786-3454	Weed Science (Agronomy, Hort.)
Dr. Eric Halfhill	WA, USDA-ARS	(509) 575-5982	Entomology
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USDA/ARS Pesticide Impact Assessment

Dr. Paul H. Schwartz, Jr.	Staff Scientist	(301) 344-2011	Entomology
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* Mark Robson - (Acting until 7/83) - (201) 932-9801

**Dr. Erick Nilson (Acting until 8/83) - (913) 532-5776

REGIONAL
AD HOC DRUG ^{A/}
ADVISORY STAFF

REGIONAL
ANIMAL DRUG ^{B/}
COORDINATORS

REGION

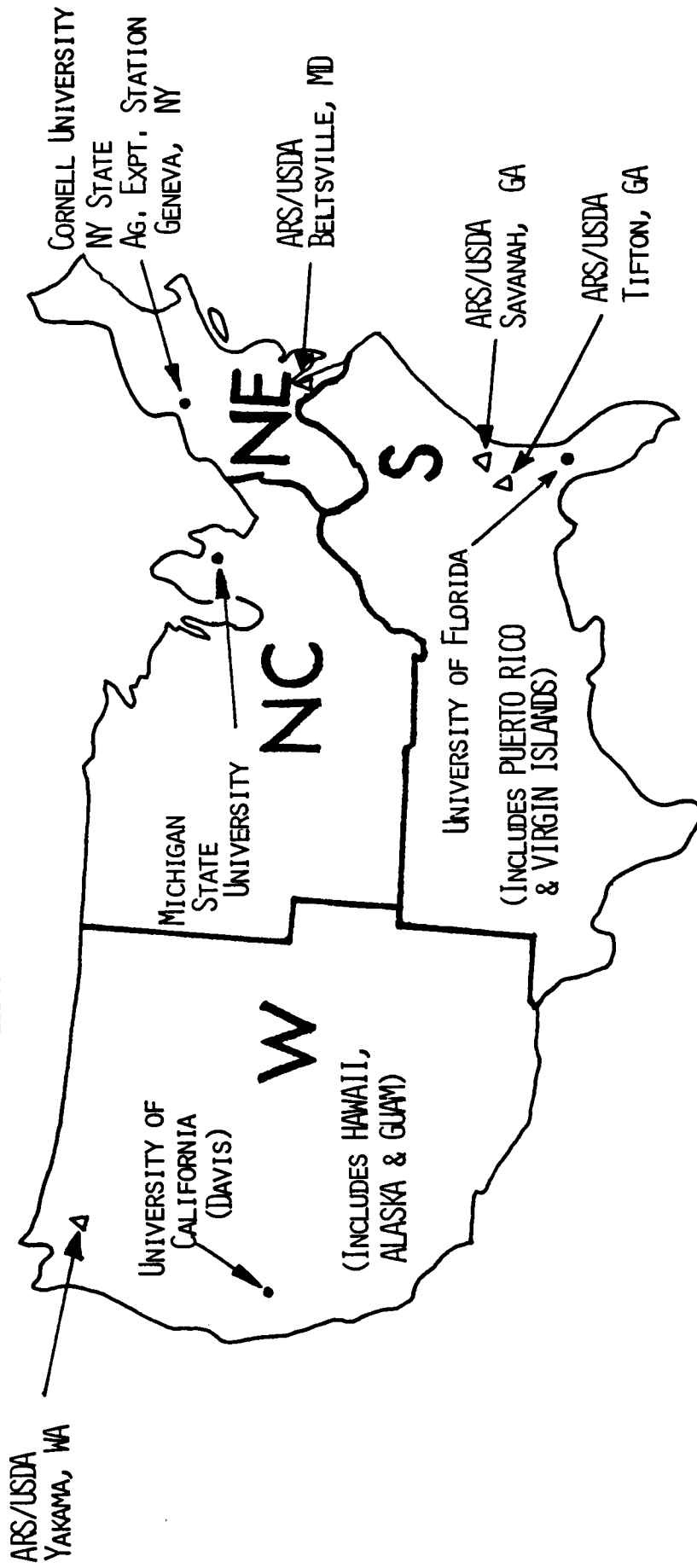
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SOUTHERN (S)	Dr. Marshall Beleau Delta Branch Expt. Sta. P.O. Box 197 Stoneville, MS 38776 (601) 686-9311	Dr. Steve F. Sundlof University of Florida College of Veterinary Med. Dept. of Preventive Medicine J-136 Gainesville, FL 32611 (904) 392-1841
NORTH CENTRAL (NC)	Dr. F. Oehme Dept. of Surgery & Med. College of Vet. Medicine Kansas State University Manhattan, KS 66506 (913) 532-5679	* Dr. R.K. Ringer Prof. of Animal Science 28 Anthony Hall Michigan State University East Lansing, MI 48824 (517) 355-8414
WESTERN (W)	Dr. J.E. Catlin Veterinary Research Lab. Montana State University Bozeman, MT 59717 (406) 994-4705	Dr. Arthur L. Craigmill Extension Toxicologist Environmental Toxicology University of California Davis, CA 95616 (916) 752-1142
AGRICULTURE RESEARCH SERVICE (ARS)	Dr. Roger Gerrits Room 207 Building 005 BARC - West Beltsville, MD 20705 (301) 344-3924	

^{A/} One animal scientist from each region appointed by the regional association of SAES Directors and one animal scientist appointed by the administrator USDA/ARS.

^{B/} Appointed by the Regional Technical Representative/Regional Administrative Advisor.

* Acting until approved by North Central Directors.

LOCATION OF
 IR-4 REGIONAL RESIDUE LABORATORIES •
 AND
 ASSOCIATED ARS/USDA LABORATORIES ▲



3. PROGRESS OF WORK AND PRINCIPAL ACCOMPLISHMENTS:

(A) RESEARCH PROJECTS:

At the beginning of 1982 there were 1,957 food-use clearance requests on file at HQ. By the end of the year an additional 219 had been added giving a total of 2,176 requests on file. There were 195 active food-use research projects in 1982; residue samples went to 14 state and USDA-ARS cooperating laboratories and to 8 chemical company laboratories.

The following pesticides/commodities were researched in 1982:

(1) BIOLOGICS (BIORATIONALS):

Codling moth granulosis virus/apple, pears, walnut

(2) FUNGICIDES AND NEMATOCIDES:

Benomyl/Brussels sprouts, cauliflower, Chinese cabbage, dandelion, endive, napa, onion, spinach, sunflower, yam - Captafol/asparagus, squash - Chlorothalonil/alfalfa, cranberry, parsnip, tanager - DCNA/bean (snap), tomato - Etridiazole/eggplant, lettuce, pepper - Etridiazole + PCNB/pigeon pea, tomato - Etridiazole + Thiophanate methyl/bean - Fenamiphos/acerola, bean, cantaloupe, Chinese cabbage, cucumber, eggplant, mango, melon, napa, pea, pepper, squash, strawberry, watermelon - Mancozeb/cowpea, ginseng, pea (pigeon), watercress - Oxamyl/cabbage, cucumber, pepper, raspberry, spinach, squash - PCNB/eggplant, radish, rutabaga, sugar beet, turnip - Thiabendazole/lettuce, tanager - Triadimefon/pineapple - Triforine/mango, pumpkin, summer squash - Vinclozalin/cabbage, raspberry, sunflower, tomato

(3) HERBICIDES AND PLANT GROWTH REGULATORS:

Acifluorfen/strawberry - Alachlor/onion, pepper - Bensulide/asparagus - Dalapon/buckwheat - DCPA/carrot - Diclofop-methyl/vetch - Dinoseb/pistachio - Gibberellic Acid/watercress - Glyphosate/acerola, blackberry, cabbage, carrot, eggplant, kiwi fruit, kohlrabi, olive, onion, parsnip, pepper, pineapple, raspberry, rhubarb, rutabaga, strawberry, tanager, tomato, watercress, yam - Linuron/onion, parsley - Metalaxyl/Chinese cabbage, collards, kale, radish, turnip - Metolachlor/cabbage, cauliflower, celery, lettuce, onion, pepper, strawberry, tomato - Norflurazon/raspberry - Oryzalin/asparagus, banana, snap bean, Bermuda grass, blueberry, guava, horseradish, macadamia, quince - Paraquat/acerola, bean, broccoli, okra, jojoba - Prometryn/chervil, coriander, dill, parsley - Propachlor/turnip - Simazine/cherry, plum, pomegranate, prunes, quince - Trifluralin/blackberry - 2,4-D(LVE)/soybean - 2,4-D/grasses,

(4) INSECTICIDES AND MITICIDES

Acephate/raspberry - Carbaryl/cabbage - Carbofuran/blueberry, cabbage, carrot, raspberry - Chlorpyrifos/asparagus, cucurbits, mushroom, onion - Diazinon/ginseng - Dimethoate/lentil - Disulfoton/asparagus, Chinese cabbage - Endosulfan/acerola - Fenbutatin-oxide/eggplant - Fensulfotion/beet, cabbage, carrot - Fenvalerate/asparagus, beet, Chinese cabbage, collards, greens (mustard), onion, spinach, turnip - Fonofos/onion - Isofenfos/strawberry, sweet potato - Malathion/millet - Methamidophos/Chinese cabbage, collards, dandelion, endive, mustard greens, leek, napa, parsley, Mevinphos/endive, watercress - Oxydemeton-methyl/apricot, carrot

(4) INSECTICIDES AND MITICIDES (continued)

Chinese cabbage - Parathion (methyl)/jojoba - Permethrin/avocado, cantaloupe, Chinese cabbage, cucumber, eggplant, mango, papaya, pecan, squash, sweet potato, watermelon - Propargite/jojoba - Resmethrin/cattle

For the final selection of active projects for the 83 growing season, 487 candidate projects were reviewed at the National Research Planning Meeting on December 7 to 9, 1982 at IR-4 HQ. When current outstanding data are submitted, 175 of these projects should be completed. One hundred sixty-nine different pesticide/commodity projects were selected for research in 1983.

Comprehensive research protocols were prepared or revised for 91 requests. These protocols assist the researcher and residue laboratory in generating the specific data required for tolerance petitions and label registrations.

(B) DEVELOPMENT AND REGULATORY SUCCESSES:

In the calendar year 1982, IR-4 HQ prepared a total of 54 pesticide tolerance petitions. Thirty nine (39) tolerance petitions were submitted to EPA and 15 petitions are still under review by the manufacturers (eventual label registrants) prior to EPA submission. Additionally, 11 major amendments were submitted to EPA. The amendments to previously submitted IR-4 petitions answered EPA's responses for the need for additional residue data, and in some cases, for toxicology data.

During the year, 83 tolerances or exemptions were established by EPA based on IR-4 petition submissions, a 66% increase over 1981:

(1) BIOLOGICS (BIORATIONALS):

Bacillus popilliae/pasture & rangeland - Methyl eugenol + malathion/all raw agricultural commodities

(2) FUNGICIDES AND NEMATOCIDES:

Benomyl/avocado - Chlorothalonil/dry beans, mint hay - Methyl bromide/asparagus, lettuce, onion (dry bulb) - Nitrapyrin/strawberry - Thiabendazole/papaya (post)

(3) HERBICIDES AND PLANT GROWTH REGULATORS:

Atrazine/guava, orchard grass and its hay - Bromoxynil/annual canarygrass seed & straw, onions (dry bulb) - 2,4-D/apricot, millet grain, forage & straw - Hexazinone/blueberries - MCPA/alfalfa & its hay, clovers & its hay, lespedeza & its hay, trefoil & its hay, annual canarygrass seed & straw - NAA/oranges & tangerines - Napropamide/basil - Oryzalin/peas (succulent), sweet potato - Phenmedipham/spinach - Picloram/flax seed & straw - Propachlor/flax seed & straw, pumpkins - Sodium chlorate/guar - Sulfuric acid/potatoes - Triallate/annual canarygrass seed & straw - Trifluralin/rape seed & straw.

(4) INSECTICIDES AND MITICIDES:

Carbaryl/flax seed & straw, millet grain & straw, trefoil forage & hay - Carbofuran/cranberries - Chlorpyrifos/cherries, grapes & dried grape pomace, onions, strawberry - Diazinon/wheat grain, forage & straw - Dichlorvos/figs & dried figs - Dicrotophos/pecan - Dimethoate/cherries - Ethoprop/mushrooms - Fenvalerate/filberts - Malathion/sunflower seed - Methomyl/green onions, pears - Methyl parathion/guar, lentils, parsley, trefoil & its hay - Oxamyl/eggplants - Propargite/sweet corn - Trichlorfon/blueberries

(5) FOOD ADDITIVES:

Sodium lignin sulfonate/pears. The postharvest use of sodium lignin sulfonate as a tank flotation additive for pears was approved by FDA. Dr. S.F. Andres, FDA Advisor to IR-4, was instrumental in clearing this use.

(6) CROP GROUPINGS:

In 1982, EPA established an amendment to the 40 CFR 180.1(h) general category of raw agricultural commodities crop grouping regulations based on an IR-4 petition. This was to include yams (Ipomoea and Dioscorea species) with sweet potatoes.

Additionally, four IR-4 crop grouping petitions are still pending at EPA. These are: (1) to define caneberries by listing species and their varieties to be included in the group; (2) to include avocados, mangos, and papayas in the stone fruit group; (3) to include several Oriental leafy vegetables and cucurbits in the existing groups; and (4) to include pumpkins in the squash group.

IR-4 submitted these general category crop grouping petitions to EPA in order to expedite the clearance of many minor crop pesticide uses. The incorporation of these concepts into the Code of Federal Regulations will permit great savings in time, manpower and money in obtaining pesticide clearances.

(C) ORNAMENTALS:

State and federal funding during the 5½ years the IR-4 Ornamentals Program has been in existence (April 1977 - November 1982) has provided support for 7,279 ornamental research trials. During the year 1,470 ornamental research trials were funded through the IR-4 Program. Data from research completed to date have made it possible for IR-4 to assemble registration packages for 22 insecticides, 20 fungicides and 19 herbicides. During 1982, IR-4 supplied data in support of 323 ornamental pesticide registrations, bringing the total number of label registrations on ornamentals to 1501 or an average of 22 clearances per month. Pesticides for which new or expanded labeling on ornamental crops were obtained during 1982 include: Devrinol®, Roundup®, Pentac®, Dursban®, Oxamyl, Bayleton®, Chipco® 26019, Daconil® and Truban®.

The sixth IR-4 Ornamentals Workshop was held in San Diego, CA, February 23-25, 1982. The workshop participants reviewed and prioritized all pesticide clearance needs on ornamentals and discussed the status of new chemicals and biorational pesticides. The workshop participants selected 1,946 priority research projects involving over 50 pesticides. These priority projects are eligible for IR-4 funding through the IR-4 Leader Laboratory Program.

The black vine weevil, Otiathynchus sulcatus, has been of major concern to the woody ornamentals industry since EPA's cancellation of heptachlor and chlordane registrations in March 1978. Presently, there are no efficacious insecticides registered to control the larval forms of the black vine weevil in compliance with state nursery certification programs. The need to replace chlordane soil treatment has been given high priority by the American Association of Nurserymen and by researchers at each of the IR-4 Ornamentals Workshops.

A special research program is being administered by IR-4 Headquarters to develop necessary efficacy and phytotoxicity data for registration of one or more insecticides for control of the black vine weevil larvae. USDA-ARS grant funds are being utilized to sponsor research at five SAES laboratories and one USDA-ARS laboratory to evaluate five insecticides on 20 container and field grown woody ornamental species. Research was initiated in the summer of 1981 with preliminary efficacy and phytotoxicity evaluations made in the fall of 1981. Tests will continue through 1982 with final control and phytotoxicity evaluations made in the fall.

Based on preliminary reports, two soil applied insecticides, FICAM and FURADAN, have shown good larval control at practical field rates. No phytotoxic symptoms have been evidenced at the rates used. Final reports are being compiled and will be submitted to registrants for registration purposes.

(D) ANIMAL DRUGS:

1982 represented a "start-up" period for IR-4's new program for the clearance of animal drugs for use in minor species and minor needs in major species. Meetings were held with producer groups to determine their needs, the Bureau of Veterinary Medicine at FDA was contacted to work out procedures to obtain approval and a consultant was employed at HQ to coordinate the efforts of the various drug firms, the Bureau of Veterinary Medicine and IR-4. The firms that produce the drugs are cooperative and will allow access to their data and conduct many of the necessary assays. The Bureau of Veterinary Medicine has exhibited a willingness to extrapolate findings in a major species to minor species, they have prepared (but not yet published) regulations relaxing requirements for minor species and describing procedures to be used in approving IR-4 sponsored animal drug clearance projects.

Work on the following applications has been initiated in 1982:

1. R05-0037 (a combination of Sulfadimethoxine and Ormetoprin) for the control and treatment of Aeromonas hydrophila infections in catfish.
2. Monensin for the control of coccidiosis in Angora goat kids.
3. Monensin for the control of coccidiosis in feed lot lambs.
4. Thiabendazole for the treatment of gapeworms (Syngamus trachea) in pheasants.
5. Amprolium for the control of coccidiosis in pheasants.
6. Butylated Hydroxy Toluene (BHT) will be studied to determine its potential effectiveness against viral diseases in trout and catfish.

(E) COORDINATION WITH FEDERAL AGENCIES:

The coordination between SAES and the USDA-ARS field and laboratory research scientists is excellent. Agricultural Research Service (ARS) scientists cooperated with SAES scientists on 82 food and 471 ornamental specialty use requests. This team work approach is providing the farmers, ranchers, growers, nurserymen and homeowners with the technologies that will result in increased production efficiency. Ninety two percent (92%) of the states participated in the 1982 research projects.

4. USEFULNESS OF FINDINGS:

Without the field work conducted by the SAES, and ARS and the subsequent successful tolerance establishment, minor commodity uses would seldom, if ever, be cleared due to the negative economic factors confronting industrial manufacturers. In this sense, IR-4 serves a valuable "bridging" role between American farmers and ranchers, pesticide and drug producers, and regulatory agencies, i.e. no other federal or state mechanism exists to assure that the animal, fruit, vegetable, and ornamental growers, both large and small, have the drug, pesticide and biological control materials they need to produce commercial yields of high quality and wholesome commodities. IR-4 continues to be the clearinghouse and communication center for the clearance of safe chemicals, including biologics which are the back bone of Integrated Pest Management (IPM) systems.

5. WORK PLANNED FOR NEXT YEAR:

IR-4 will continue to develop data required by EPA for the establishment of minor use tolerances, including IPM materials, as necessary, appropriate and as funds permit. Additionally, a similar effort will be expanded in developing animal drug uses and nonfood uses, i.e. ornamental registration data packages.

In order to gain maximum benefit from a limited funding base, IR-4 works closely with EPA, FDA and the pesticide and animal drug industry. Requests will be screened carefully so that projects involving chemicals having data gaps can either be eliminated or delayed as the situation dictates. By doing this, the overall efficiency of all operations will be improved so that time and money are not expended on projects which cannot be successfully concluded at the present time.

6. PUBLICATIONS:


- a) IR-4 Newsletter (Quarterly)
- b) IR-4 Laboratory Chemical Residue Analysis Guide, 1 MAY 82
- c) IR-4 Crop Sampling Manual, 1 MAY 82
- d) The Clearance of Glyphosate For Use On Minor Crops In USA: In The Herbicide Glyphosate Monograph (In Press)
- e) Nematicide Registration For Minor Crops. In Journal of Nematology. 14(4): 439(Abstr.)

December 31, 1982

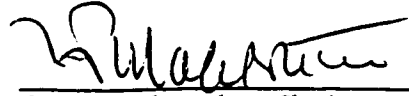

R.H. Kupelian, National Director

Approved:

1/20/83
Date


P.H. Schwartz, Chairman,
Technical Representatives

1/21/83
Date


J.P. Mahlstedt, Chairman,
Administrative Advisors