

ANNUAL REPORT OF COOPERATIVE REGIONAL
RESEARCH PROJECTS
INTERREGIONAL RESEARCH PROJECT NO. 4
January 1 to December 31, 1972

1. PROJECT: IR-4 Evaluation of Current Data and Needed Research to Determine Tolerance Limits of Chemicals for Minor Uses on Agricultural Products
2. COOPERATING AGENCIES AND PRINCIPAL LEADERS:

TECHNICAL COMMITTEE

Technical Committee

Dr. C. H. Van Middeltem, Chm., Florida
Dr. V. H. Freed, Oregon
Dr. G. E. Guyer, Michigan
Dr. B. R. Wilson, New Jersey
Mr. K. C. Walker

Region

Southern
Western
North Central
North Eastern
USDA-ARS

Administrative Advisory Committee
(States)

Dr. H. H. Wilkowske, Chm., Florida
Dr. W. C. Kennard, Connecticut
Dr. J. P. Mahlstede, Iowa
Dr. L. W. Rasmussen, Washington

Southern
North Eastern
North Central
Western

USDA

Dr. R. C. Riley, USDA-CSRS

Consultants

Dr. John W. Swift, Cal., Statewide Pesticide Coordinator
Mr. C. L. Smith - EPA-PRD
Mr. D. M. Baker, Jr., EPA-PRD
Dr. K. R. Hill - USDA-ARS

Project Leaders

Dr. C. C. Compton, Rutgers - N. J. - Coordinator
Mr. G. M. Markle, Rutgers - N. J. - Asst. Project Coordinator
(Recording Secretary)

In addition to the Technical Committee a State Experiment Station staff member appointed by the Experiment Station Director for each of the 50 states and Puerto Rico, serves as a liaison person for the IR-4 Project.

3. PROGRESS OF WORK AND PRINCIPAL ACCOMPLISHMENTS

1972 has been our most productive year since the activation of the IR-4 Project from the standpoint of finalized pesticide tolerances, tolerance exemptions, tolerance extensions and registered labels.

During the year pesticide tolerances were established for the plant growth regulator 1-naphthaleneacetamide and its metabolite 1-naphthaleneacetic acid in or on apples and pears; the herbicide sodium trichloroacetate in or on sugar beet roots and sugarcane for the control of grasses; the herbicide linuron 3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea in or on celery for the control of weeds, post transplant; the fungicide thiabendazole in or on mature hubbard squash in storage for the control of Fusarium roseum; the insecticides pyrethrins and piperonyl butoxide in or on meat, fat, meat byproducts and eggs of poultry for the control of flies and lice; the growth regulator gibberellic acid in or on the blueberries to improve fruit set; the herbicide diuron 3-(3,4-dichlorophenyl)-1,1-dimethylurea in or on papayas for the control of nineteen weeds in Hawaii only; the fungicides maneb, manganese ethylenebisdithiocarbamate and zineb, zinc ethylene bisdithiocarbamate on fruits and vegetables; the fungicide benomyl, methyl 1-(butylcarbamoyl)-2-benzimidazolecarbamate in or on mushrooms for the control of dry bubble disease caused by Verticillium malthousei; the biological insecticide Bacillus thuringiensis on spinach for the control of cabbage loopers, an extension of label previously limited to use in North Carolina and Virginia to include all states.

Interim tolerances were established for the fungicide streptomycin sulfate in or on celery for the control of bacterial blight, Pseudomonas apii, in or on peppers and tomatoes for the control of bacterial leaf spot, Xanthomonas resicaloria in the plant bed growth period, in or on potatoes resulting from the treatment of the potato seed piece for the control of blackleg, Erwinia caratobora and soft rot, Erwinia astroseptica; the fungicide sodium arsenite in or on grapes applied for the control of dead arm and black measles; the fungicide copper arsenate in or on pears for the control of fire blight in Oregon; the fungicide zineb for the control of Fusarium seed piece decay when applied to the potato seed piece prior to planting, usually in conjunction with the streptomycin seed piece treatment; the growth regulator p-chlorophenoxyacetic acid in or on tomatoes to increase fruit set; the growth regulator 1-naphthaleneacetic acid in or on olives for fruit thinning; the herbicide 2,4-D on blueberries for weed control and on potatoes (white) to improve red color and skin texture.

Additional pesticide petitions submitted to EPA. For a tolerance for the insecticide Imidan[®] N-(mercaptomethyl)phthalimide S-(0,)-dimethyl phosphorodithioate and its metabolite N-(mercaptomethyl)phthalimide-S-(0,0-dimethyl phosphorothioate) in or on sweet potatoes for the control of the sweet potato weevil; for a tolerance for the fungicide captan, N-trichloromethylthio-4-cyclohexene 1,2-dicarboximide in or on wetland taro in Hawaii for the control of Pythium soft rot; for a tolerance for the regulator 2,4-D in or on apricots to regulate fruit drop; for the insecticide carbaryl in or on pecans for the control of the pecan weevil and the pecan nut casebearer; for an exemption from a tolerance for the apple blossom thinner, dinitro-o-cresol in or on apples when applied at the full bloom stage; for tolerances for endosulfan

hexachlorohexahydriomethano-2,4,3-benzodioxathiepan oxide and parathion (ethyl and methyl) in or on rape seed and mustard seed for the control of the cabbage and turnip aphids on the growing plants; for a tolerance for diuron in or on peaches when used as a herbicide for the control of escape weeds; for a tolerance for the acaricide dicofol (Kelthane®), 1-1-bis(p-chlorophenyl)2,2,2-trichloroethanol when used to control two-spotted spider mites, Tetranychus urticae (Koch) on carrots; for a tolerance for sodium dehydroacetate in or on snap beans when used as a post harvest treatment to prevent spoilage; for a tolerance for 2,4,5-TP (silvex) in or on pears when used as a growth regulator.

4. USEFULNESS OF FINDINGS

Tolerances established by EPA validate registered labels previously subject to cancellation under the "No Residue - Zero Tolerance" order of April 13, 1966. Tolerance rules establish tolerances leading to new label registrations. Registered labels under EPA-PRD resulting from research data developed by the State Agricultural Experiment Station and the U. S. Department of Agriculture complete pesticide clearances. Registered labels permit the farmer-grower, usually the small farmer, to employ legally cleared pesticides to protect his crops and assures the public of wholesome vegetables, fruits and other food-stuffs including meats, through the clearance of pesticides on animal feeds. Establishing protocols to develop the necessary data better utilizes the resources of the AES and the USDA to the benefit of the public. This is done by performing precise work on chemical and biological control agents. IR-4 has provided the AES and USDA researchers information on control agents which have the greatest potential for clearance under current regulations. This alone saves the AES and USDA money, manpower and time.

5. WORK PLANNED FOR NEXT YEAR 1973

Continued work on pesticide clearances through new pesticide tolerance petitions and registered labels as summarized under PROGRESS in this report. Development of specific clearance protocols on control agents useful to the farmer grower.

With the majority of pesticide petitions it is frequently necessary after review by EPA, to develop additional information or amend the petitions. After tolerances are established additional information must be developed before a label can be registered. New label registrations resulting from past and continuing IR-4 activities will be consummated as rapidly as possible. Under the new "Pesticide Control Act of 1972" many state registered labels must be submitted to the EPA-PRD for registration. Data must be developed for the uses required by the grower. In addition to food crops, ornamentals, forest trees, etc. are becoming important to the AES and USDA researchers and growers. Much data must be developed for registration of labels that will be useful to the growers.

6. PUBLICATIONS ISSUED - None

December 20, 1972

C. Blompton
IR-4 Project Coordinator

Approved:

18 Jan 1973
Date

C. H. Van Middelburg
Chairman - Technical Committee

29 Dec 1972
Date

H. H. Wilkowski
Administrative Advisor