ANNUAL REPORT OF COOPERATIVE REGIONAL RESEARCH PROJECTS
INTERREGIONAL RESEARCH PROJECT NO. 4

JANUARY 1 to DECEMBER 31, 1973

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:

PROJECT PERSONNEL

Technical Committee

Dr. W. C. Eden, Florida  
Dr. C. H. Van Middelem, Florida (To Jul 73)  
Dr. V. H. Freed, Chrm., Oregon  
Dr. G. E. Guyer, Michigan (To Jul 73)  
Dr. P. A. Dahm, Iowa  
Dr. B. R. Wilson, New Jersey  
Mr. K. C. Walker

Region

Southern  
Southern

Western  
North Central  
North Central  
North Eastern  
USDA-ARS

Administrative Advisory Committee

Dr. H. H. Wilkowske, Chrm., Florida  
Dr. W. C. Kennard, Connecticut (To Jul 73 - on leave)  
Dr. R. M. Heermann, New York  
Dr. J. P. Mahlstede, Iowa  
Dr. L. W. Rasmussen, Washington  
Dr. R. C. Riley

Consultants

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

Project Coordinators (located at Rutgers University, New Jersey)

Dr. C. C. Compton, Coordinator  
Mr. G. M. Markle, Ass't. Coordinator (Recording Secretary)  
Dr. R. T. Guest, Ass't. Coordinator (started 1 Nov 73)

In addition to the Technical Committee, State Experiment Station staff members appointed by the Experiment Station Director for each of the 50 states, Puerto Rico, Virgin Islands and Guam, and three USDA-ARS persons from each region serve as liaison representatives for the IR-4 Project.
3. PROGRESS OF WORK AND PRINCIPAL ACCOMPLISHMENTS

The year 1973 was another year of good progress for this project, especially in the area of coordination of research for clearance purposes. With data developed by the Agricultural Experiment Stations and Federal Laboratories the following pesticide tolerances or temporary tolerances were established and/or labels registered: INSECTICIDES – Azodrin® for the control of the two spotted spider mite on peanuts in cooperation with industry; Bacillus Thuringiensis for looper control on spinach on a national basis; Carbaryl for pecan weevil control on pecans; Dasanit® Spray Concentrate for control of nematodes, lesser cornstalk borer and thrips of dryland peanuts; Diazinon for midge control on guar with industrial assistance; Endosulfan and parathion (ethyl and methyl) for aphid control on rape and mustard seed; Imidan® for sweet potato weevil control on sweet potatoes to substitute for DDT; Methomyl for cabbage looper and beetle armyworm control on spinach; Methomyl for leafhoppers, cabbage loopers and Mexican bean beetles on lima beans; Phosalone for artichoke plume moth control on artichokes; Plictran® for two spotted spider mite on hops. HERBICIDES AND GROWTH REGULATORS – Daetha® for weed control in horseradish and rutabaga; Dalapon for annual weed control in birdsfoot trefoil; Diphenamid and trifuralin for weed control in forest nurseries in the Southeast; Diuron for weed control in peach orchards, additional data being developed to shorten preharvest interval; Gibberellic acid for increase berry set on blueberries, data on environmental impact also developed; Nitrofen for weed control in irrigation water on taro; Petroleum solvents for weed control in tropical fruit orchards; Sodium chlorate as a desiccant on sorghum seed crop with feed use permitted for waste; Sodium chloride as a defoliant on chili pepper in cooperation with California Department of Agriculture; Silvex as a blossom regulator for pears. FUNGICIDES – Captan for pythium control on taro; Streptomycin for various fungi and bacterial diseases of tomatoes, peppers, celery and potatoes; Terramycin for blight control on pears in cooperation with the California Department of Agriculture.

Petitions or labels submitted and active are: INSECTICIDES – Benzene hexachloride and lime for phylloxera control on pecans; Carbophenothion for two spotted mite control on peanuts; Carbophenothion for midge control on blueberries; Dasanit® for cabbage maggot control on rutabagas; Heptachlor and its epoxide for its unavoidable residues in canned pumpkins; Kelthane® for mite control on processed carrots, metabolites and animal feeding of waste are problems; Methyl bromide for wax moth control in comb honey, data must be obtained for methylbromide per se as compared to other analyses of total bromides. HERBICIDES AND GROWTH REGULATORS – 4 CPA for blossom set on tomatoes; 2,4-D for fruit drop on apricots; Dinoeb for spurry, red root, pigweed and pineapple weed control on peas in western Washington, petition initially rejected for lack of a balanced large animal metabolism study using radioactive material; DNOC as a blossom thinner on apples, the toxicological studies for the dog data were just completed and are being reviewed by EPA; Kerb® for control of quackgrass and other weeds in blueberries; Linuron for weed control in asparagus; MCPA for dayflowers and other broadleaf weeds in stubble rice; Sodium Chlorate as a desiccant in grain sorghum for food and feed uses. FUNGICIDES – Dinocap for disease control on caneberry and gooseberries; Sodium arsenite for disease control on grapes; Sodium dehydroacetate for disease control on snapbeans; TBZ for storage rot control on seed piece potatoes.

Two petitions were withdrawn because of a lack of essentiality or toxicological data as follows: Copper arsenate for bacterial blight control on pears in Oregon, Streptomycin is an adequate substitute; Ethylene dibromide for wax moth...
control on comb honey, a recent report places EDB on the carcinogen list.

Petitions being prepared for submission to EPA are as follows: Dithane M-45 for disease control in taro; Acetaldehyde for disease control on stored apples and strawberries; Dodine for white rust control on spinach; Difolatan for disease control on taro.

Approximately 4000 requests for clearance of various pesticides on many ornamentals have been received. This response has been expedited by the announced cancellation of all state labels by Oct. 74. To handle the increased volume IR-4 is planning to computerize all requests.

A proposal is being developed for submission to EPA to classify the dietary intake of minor crops which hopefully should reduce the number of residue analyses and toxicological data necessary to clear many minor crops.

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 producers of agricultural commodities to employ legally cleared pesticides to protect crops, livestock and other agricultural uses. Such safe use assures the public of wholesome vegetables, fruits and other foods including meats, through the clearance of pesticides on animal feeds. Establishing specific protocols to develop the necessary data better utilizes the resources of the AES and the USDA to the benefit of the public. IR-4 has provided the AES and USDA researchers information on control agents which have the greatest potential for clearance under current regulations.

5. WORK PLANNED FOR NEXT YEAR 1974

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 producers of agricultural commodities.

With the majority of pesticide petitions, after review by EPA, revision is necessary 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 before Oct 74. Data must be developed for the uses required by the grower. In addition to food crops, ornamentals and forest trees are being given greater attention with respect to clearance requirements. Much data must be developed for registration of labels that will provide useful pesticides for the growers. A computerized system of operation is being planned which will improve communications with the states, USDA-ARS and regulatory agencies as well as provide greater effectiveness of the project coordinators.
6. PUBLICATIONS ISSUED.

IR-4 Newsletter on Quarterly basis
Policies and Procedures


[Signature]
C. C. Compton, IR-4 Project
Coordinator

Approved:
[Signature]  Jan 10, 1974
V. H. Freed
V. H. Freed - Chairman, Technical Committee

[Signature]  Jan 10, 1974
H. H. Wilkowske - Administrative Advisor