



## IR-4

# Interregional Research Project Number 4

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Under the law, any use of a pesticide in ways other than those given on the label is a *misuse*, and anyone who misuses a pesticide may be fined. Each label instruction must be registered by the U.S. Environmental Protection Agency or Hawaii Department of Agriculture. The registration requires proof that the pesticide is effective and poses no undue hazard when used as instructed. Adequate field testing for effectiveness and hazard must be done before a registration can be obtained.

Research and development costs for the registration of most pesticide uses are carried out by the pesticide manufacturers. The manufacturers, of course, expect to sell enough pesticides for those uses to return a profit. Many uses for pesticides, however, are on such a small scale that their research and development costs are greater than any possible return on sales to the manufacturer. In some cases, the use is essential for efficient crop protection. Even these small (or minor) uses require registration. The IR-4 (Minor Use Pesticide) program has been set up to aid in securing the tolerances that are prerequisites for food and use registrations.

### ORGANIZATION

The IR-4 program is a nationwide cooperative effort of the Cooperative State Research Service and Agricultural Research Service of the United States Department of Agriculture, the United States Environmental Protection Agency, the separate state agricultural experiment stations, and individual researchers, manufacturers, and growers. The program has its national headquarters at Rutgers University in New Brunswick, New Jersey. The national headquarters primarily assists in developing research protocols (test outlines), and, in cooperation with the Environmental Protection Agency and the manufacturer or the pesticide involved, in assembling petitions for registration.

The program is administered through five regional offices: one each for the state agricultural experiment stations in the eastern, southern, western, and north central regions, and a special Agricultural Research Service unit. The regional offices are located at agricultural experiment stations with leader laboratories for residue analyses. These offices facilitate the field work in their regions and arrange for the chemical analyses of pesticide residues required.

The identification of needs, selection of products, and recruitment of cooperating researchers is done by the state liaison representatives from each state agricultural experiment station in the region. These liaison representatives, with their knowledge of the problems, personnel, and resources within the state, are critical to the program. Your state liaison representative is your best contact for information on the IR-4 Program. This name can be obtained through the agriculture experiment stations in your state.

## **OPERATION**

An IR-4 project begins with the recognition of a need for minor use registration of a pesticide. A "minor use need" is defined as a pesticide use that meets the following criteria:

1. That losses are occurring because...
2. there is no registered pesticide, or...
3. the registered pesticides are not effective or acceptable for some reason, and...
4. the use is so limited that commercial development would be unprofitable.

Note that IR-4 projects can be for changes in amounts, timing, and types of application of registered pesticide uses as well as the addition of new crops or pests to existing labels.

The needs are assembled by state liaison representatives through their contact with industry groups and individual growers and researchers. The needs are examined by a competent cooperating specialist for details on the pesticide, formulation, amount, timing, number, and type of applications that may be needed for effective control. A request for a project is then sent through the regional office to the national headquarters.

A check is made to see if an effective pesticide is already registered for that use. If not, the manufacturer of the pesticide in question is contacted to find out whether the manufacturer (or patent holder) will support the proposed registration. This is necessary because the manufacturer must apply for the registration. When the manufacturer's support is secured, the personnel of the national headquarters, in cooperation with the manufacturer and the Environmental Protection Agency, will work up a tentative protocol for efficacy testing and, where needed, residue sampling.

Projects are selected at an annual meeting of liaison representatives in the regions. The state liaison representatives then contact researchers to secure a cooperator who will do the work. Some financial aid from the regional office is available for these projects. The researcher may change the procedures in the suggested protocol but should check first to be sure that the changes are acceptable.

The researcher forwards the results of the testing to the regional office and the residue samples to the leader laboratory. The results are reviewed by the national IR-4 headquarters and by the manufacturer. A petition for establishing a tolerance is then presented to the Environmental Protection Agency but if any deficiencies exist, further work may be required. After EPA establishes a tolerance, the final step is to register the pesticide product for the use.

The final result is a registration that will enable growers to solve the pest problem that has been hurting them.

## **COOPERATION**

IR-4 is a cooperative program in which one worker helps others to solve a common problem.

Minor uses for pesticides are, by their nature, highly specific and very local. The job of obtaining registrations for them requires the assistance of many persons: growers, pesticide manufacturers' representatives, extension personnel, researchers, and others interested in agriculture. Your assistance would be welcome. Please contact your state liaison representative if:

- ...you know of a need for an IR-4 registration.
- ...you can help suggest ways to meet the needs for control.
- ...you can do the testing needed to obtain the registration

You can help the IR-4 to be of service to agriculture.

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