The IR-4 Project and ARS Minor Use Pesticide Program: Meeting the Needs of Today's Growers

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The IR-4 Project is a federally funded program dedicated to providing pest management solutions to growers of minor use crops, including fruits, vegetables and ornamentals, for the benefit of consumers, growers, and processors. Due to the cost of the research and registration of new pesticides, many pesticides are only registered for use on crops that nationally cover large acreage, such as corn, wheat and soybeans. The USDA and the state land grant universities organized IR-4 in 1963 to address the shortage of registered pesticides for crops that were considered minor use, or grown on fewer than 300,000 acres. Today, researchers from USDA and from land grant universities continue to contribute to the IR-4 Project by developing data in support of the registration of safe and effective pesticides.[1]

In Wooster, Ohio, IR-4 research is conducted by researchers from both The Ohio State University and from the USDA Agricultural Research Service (ARS). Specifically, members of the ARS Application Technology Research Unit conduct IR-4 studies on both ornamentals and food use crops. The contribution by ARS to the IR-4 Project is under the ARS Minor Use Pesticide Program.

Identification of potential new uses of a registered pesticide begins with the grower. Through Project Clearance Request forms (PCR forms), growers, commodity organizations, extension agents and agricultural researchers may submit a request to IR-4 to investigate a new use of an existing pesticide.[2] For example, an herbicide might only be labeled for use on soybeans. The proposed new use may be for the same herbicide on snap beans.

The Annual IR-4 Food Use Workshop (September 22-24, 2004) is held to discuss and prioritize the existing and new requests of the past year. These new requests should be received by IR-4 Headquarters by the first week in September. The Workshop is attended by IR-4 Headquarters staff, chemical company representatives, agricultural researchers, commodity organizations and growers. Only 45 of the highest priority requests from the nation can be funded in the next year.

The IR-4 Project then obtains data regarding the amount of pesticide residue remaining on a given food crop. From this data, the Environmental Protection Agency (EPA), which reviews all petitions for pesticide uses, establishes a tolerance level for that pesticide use. Once EPA makes a ruling, the manufacturer may add the use to the label.[1]

The IR-4 Project benefits the grower in a number of ways. IR-4 directly communicates the grower needs to chemical companies to determine whether the company will support the proposed new use of their product. IR-4 has helped promote the registration of Biopesticides and Reduced Risk Pesticides, which are safer for the environment.[1] IR-4 has a deadline of 30 months to collect data and submit a report to EPA.[2] This time required to register a new use has been

greatly reduced, so that new pest management tools are available faster to meet grower needs. For instance, pesticide resistance problems may be anticipated and new tools readily available for use in rotation. IR-4 has used the system of Crop Grouping to register greater numbers of crops- crops organized according to their potential for pesticide residues have been used to register whole crop groups, instead of just a single crop.[3]

The IR-4 Project is ultimately driven by specialty crop growers. The proposed uses researched under the Project are only those identified in the field and communicated in the form of Project Clearance Requests. When requests for the same use are received from multiple sources and states, the chances for funding are increased. Communicate these needs to your extension agents, university and ARS researchers. The grower's voice will then be heard at the Annual Workshop.

Growers interested in learning more about the IR-4 Project may visit www.ir4.rutgers.edu. To submit a PCR on the website, follow the links "Food Crops", then "Submit Request". For more information please contact Michele Giovannini with USDA-ARS at giovannini.1@osu.edu or at (330) 263-3844.

[1] *The Specialty Crops Program*, The IR-4 Project, New Brunswick, NJ, 2003.

[2] "Meeting the Needs of Specialty Crop Growers", The IR-4 Project, August 5, 2004, <www.ir4.rutgers.edu/docs/introduction.htm>.

[3] Markle, G.M., Baron, J.J., and Schneider B.A., 1998, *Food and Feed Crops of the United States*, Meister Publishing Co., Willoughby, OH.