Performance Trials

The 2001 Food Use Workshop identified many projects that require additional performance data. Some of these projects are complete or nearly complete in the development of residue data, but others are just beginning the process. In most cases, the registrants are requiring satisfactory efficacy and/or plant safety data before they will include the specified minor crop use-pattern on their label. The weed science, entomology, and plant pathology workshop participants identified 61, 56, and 147 uses, respectively that need performance data.

The Southern Region of IR-4 has been working with a 29 person team of university research/extension weed scientists, entomologists and pathologists to develop performance data. We have been evaluating the performance of new products in comparison with each other and to the registered standards. This information is being used to identify new projects and to provide data to registrants that will allow labeling following the completion of a project. In 2001, researchers in 10 Southern Region states are developing information on 139 product/crop/pest combinations. Data are emailed to the Southern Region Office, reviewed and sent to IR-4 National HQ to answer specific questions on product performance.

Limited funding from the New Technology Team and Pest Control Industry has supported trials in every IR-4 Region. The Southern Region has been able to increase support by matching national funds with regional funds and securing additional help from grower groups and industry.

Fungicide efficacy trials have been set up with researchers throughout the U.S. on crop / pesticide combinations that were identified as priority ‘A’ or ‘B’ projects at the IR-4 2000 Food-Use Workshop. Sixteen field trials were set up for the 4 ‘A’ priority projects (4 trials in each of the 4 projects). A total of six trials were set up in two projects using monies distributed to the regions for use on regional interest projects. Utilizing monies from BASF and IR-4, 87 field trials were organized to evaluate BAS 500, BAS 510 and BAS 516 on ‘B’ priority projects. Correspondence with researchers indicates that a number of trials have been completed and significant data developed. A few reports have been received at this point in time; however, most of the reports are expected in 4th QTR 2001.

In 2001, IR-4 funded herbicide performance trials in Brassica (Cole) Leafy vegetables for which crop group tolerances are already established, but the crops have not been added to the label due to insufficient efficacy or crop safety data. Performance trials were conducted in all IR-4 regions and in Canada (Ontario, Quebec, and British Columbia). Products under evaluation are pyridate/Tough 5 EC (EC formulation), clopyralid/Stinger, sulfentrazone, carfentrazone/Aim and dimethenamid-P/Outlook. In addition, IR-4 funded efficacy and crop safety trials with the reduced risk herbicide dimethenamid-P on garden beet in all IR-4 regions.

Dave Thompson, Plant Pathologist, together with Keith Dorschner, Entomologist and Marija Arsenovic, Weed Scientist have been leading a National effort to collect required performance data. Margaret Reiff has been searching out performance data from various sources in a data mining project that collects data that have already been developed but are unknown to registrants.

Article by Charles Meister, Dave Thompson and Marija Arsenovic

The EPA/IR-4 Technical Working Group

The EPA/IR-4 Technical Working Group has held a series of meetings at approximately quarterly intervals since the first meeting on 25 January, 1999, at IR-4 Headquarters in New Jersey. Most of the subsequent meetings have been held at EPA’s offices in the Crystal City section of Arlington, Virginia, to maximize participation by EPA scientists. Participants from the EPA include Hoyt Jamerson, Bernie Schneider, Jeff Herndon, Sidney Jackson, Pat Cimino, Jim Jones, Margaret Staikowski, Karen Whitby, Will Donovan, Clark Swentzel, Shaja Brothers, Rob Forrest, Donna Davis, Rick Keigwin, Doug Dotsun, Luis Suguiyama, Mark Dow, Marion Johnson, Therese Downs, Lisa Lang, Steve Robbins, Gene Robinson, Jane Smith, and Terri Stowe. Participants from IR-4 Headquarters have included, on a regular basis, Bob Holm, George Markle, Jerry Baron, Dan Kunkel, and all of the Study Directors. Representatives of the Quality Assurance and Biopesticides Program at HQ have also participated, as have the Regional Field Coordinators and the Regional Administrators, other individuals from IR-4 and representatives from Canada and the California Dept. of Pesticide Regulations (often by conference call).

The goal of these meetings was originally the creation of a more efficient system of IR-4 data submission and EPA review. The need to accelerate this process, particularly with regards to reduced-risk and other new chemistries, was

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increased with the passage of the Food Quality Protection Act. Relations between IR-4 and EPA had always been good, but it had become clear that certain issues could not be resolved via telephone calls or e-mail. Face-to-face meetings, with the immediate exchange of ideas, were needed to hammer out improvements to the current system. The goal has expanded over time to encompass all minor use pest management issues championed by IR-4.

Two major accomplishments were achieved at the first meeting. The first was an agreement by IR-4 to begin including a series of summary tables in its petitions to expedite EPA review. These tables include Dietary Considerations and Field Trial Residue Data, and summarize the field and analytical data in the manner that had been done by EPA reviewers. By preparing the tables as integral parts of the petitions, the time needed for review by EPA was reduced substantially.

The second major accomplishment was an agreement by EPA to accept a reduced residue data set for the registration of spinosad, a reduced-risk insecticide, on most minor crops. The direct savings to the IR-4 Project from this agreement has been calculated at $550,000. The reduced data requirement led to reduced review time at the Agency, which meant that minor crop growers across the country had access to this safe, new compound much sooner than they could normally have expected.

Items discussed at the second meeting included a quantification of cost savings to IR-4 by acceptance of a blanket tolerance proposal for azoxystrobin (nearly $500,000); a new proposal for a blanket tolerance on all food commodities for glyphosate; an update on the IR-4 web page; the status of the FY 2000 petition work plan and the HED strategy for review of these petitions; an update on the “fee for service” proposal for petition review; the future integration of Mexico into the IR-4 planning process (in a role similar to Canada’s); an update on the residue summary table format being developed for petitions; a proposal to move fresh/culinary herbs into Crop Group 4A; the non-food status of medicinal plants; an update on the status of the IR-4 methyl bromide program; and the potential registration of imidacloprid-treated spheres for apple maggot control. The second day of this meeting was devoted to “Beyond the Turnpike A Moving Seminar on New Jersey Agriculture”, with stops at the Rutgers Fruit Research and Extension Center in Cream Ridge, the Joseph J. White, Inc. cranberry farm in Whitesbog, Lebanon State Forest, Bellview Farms in Landisville, and the Rutgers Agricultural Research and Extension Center in Upper Deerfield.

The agenda of the third meeting included a status report on EPA’s FY 1999 workplan (including the review of pesticide use petitions), the FY2000 workplan, NAFTA cooperative residue data development with Canada and Mexico, the status of crop group proposals (the placement of culinary herbs and beet tops in crop group #4 and turnip tops in crop group #5), a discussion of transgenic herbicide-tolerant crops and variety requirements, and a review of EPA/Codex tolerance vocabularies.

Following are some highlights of the meetings in 2000: IR-4’s agreement to consult with Cal-DPR regarding reduced data requirements for “safer” products on crops that are important in California; several new crop definition or group proposals; the decision of the group that turnip greens shall henceforth be a member of the Brassica leafy vegetables crop group rather than the leaves of root and tuber vegetables crop group; a discussion on the possible inclusion of watercress in the leafy vegetable crop group (in order to increase the number of registrations on this crop); the successful conclusion of the efforts to register imidacloprid-treated spheres for the control of apple maggot flies; a presentation about two new crops grown in California: stevia (a herbaceous, perennial shrub which produces a sugar that will be extracted and sold as a natural sweetener) and Promor A (a forage crop that is high in protein content); the initiation of petition review (work-sharing) at the California Dept. of Pesticide Regulations; the acceptance by the Health Effects Division of a proposal that almond residue data alone be used to cover tolerances on pistachio; ChemSAC’s approval of a proposal that at-planting uses of zinc phosphate on cucurbits and post-harvest uses of zinc phosphate on commodities within the berry crop group be classified as non-food uses; and a proposal that okra be re-classified as a member of the fruiting vegetable crop group (representative commodities are tomatoes and peppers), and the “Beyond the Beltway” educational tour of USDA-Beltsville and the Delmarva Peninsula.

This year, highlights have included the initiation of trial electronic data submission and the development of new data tables for petitions; a request for a time-limited tolerance and conditional registration for the use of spinosad in fruit fly bait formulations; a proposal for separate field trial requirements for perennial vs. annual strawberries; a Memorandum of Understanding between EPA and PMRA (Canada) which states that the respective environmental agencies will recognize each other’s GLP data; a visit to the Village Farms tomato greenhouses in Fredericksburg, Virginia; the data evaluation records that will soon replace certain portions of the final reports that are submitted by IR-4; a request from EPA that IR-4 include additional information in the label instructions in its petitions; reduced data requirement proposals for bifenthrane, carfentrazone, and pyriproxyfen; new crop group proposals for low dietary intake (LDI) crops; a discussion of Section 18 economic data that indicated that IR-4 residue studies were supporting minor crops valued at more than $2.2 billion during the period 1998-2000; the potential for the use of European data to support some U.S. tolerances; the harmonization of data requirements between the U.S. and Canada; and the “Beyond the Battlefield” training tour of western Maryland and south-central Pennsylvania.

The series resumed on October 2, 2001, at EPA. A summary of this meeting will appear in the next IR-4 Newsletter.

Article by Ken Samoil