



Forward Motion

The
IR-4
Project
2009

IR-4 Annual Report

Dear IR-4 Friends,

On behalf of the IR-4 Project Management Committee, I want to thank you for your continued support of the IR-4 Project. Through the collective work of our IR-4 co-workers at the field sites, regional field offices, analytical laboratories and at IR-4 Headquarters we have achieved another successful and productive year in 2009. Our mission remains to facilitate the registration of effective pest management technology for use by the growers of specialty crops and minor uses. IR-4's success could not have occurred without the contributions of many. This list includes USDA who provides funding and scientific contributions; the State Agricultural Experiment Stations who provide direct funding and hosting IR-4 field centers, analytical laboratories and management offices as well as their research and extension scientists who participate in IR-4 activities; the crop protection industry that provides access to their products, technical support and funding; Agriculture and Ag-Food Canada that cooperates with IR-4 on research projects of mutual interest; and regulatory partners at the US Environmental Protection Agency (EPA), Canada's Pest Management Regulatory Agency and California Department of Pesticide Registration who provide guidance and review IR-4 submissions. IR-4 also thanks the members of the IR-4 Commodity Liaison Committee and the Minor Crop Farmers Alliance for their guidance and willingness to articulate IR-4's funding needs to Congress.

Once again, the IR-4 Project had a phenomenal year in providing deliverables to stakeholders. Data from the IR-4 Food Program allowed the EPA to establish **219** permanent pesticide tolerances on **32** chemicals in 2009. Using crop groupings and other extrapolations, these tolerances support **952** likely new use registrations with conventional pesticide products. IR-4's research efforts also supported **3** biopesticide products which translated into **7** new biopesticide uses on food crops resulting in **959** potential new registrations on food crops in 2009 from IR-4 activities. In the Ornamental Horticulture Program, data supported **6** registration decisions. These IR-4 supported successes impacted **614** ornamental plant species.

Many activities are on-going to sustain future deliverables. In 2009, IR-4 submitted **126** pesticide tolerance petitions involving **36** chemicals to EPA. IR-4 also submitted to EPA proposals to expand the Herb and Spice group. Additionally, the Food Program conducted **553** field trials associated with **109** high priority studies. Sixteen of these residue studies were conducted in cooperation with the Pest Management Centre (PMC) of Agriculture and Ag-Food Canada. Canada served as Study Director for 3 of the harmonized joint projects. All residue studies are conducted in compliance with federal regulations. Included in compliance activities are the efforts of the IR-4 Quality Assurance Unit which conducted **209** field and **72** analytical in-life inspections. Additionally, they audited **582** field data books, **64** analytical summary reports and **69** final/amended reports. The IR-4 Project also conducted **36** efficacy/crop safety trials to develop "value" data to support specialty crop/minor use registrations.

The IR-4 Ornamental Horticulture program submitted **16** data packages of ornamental data to the registrants. Additionally IR-4 conducted **1212** trials with greenhouse and field ornamentals crops in support of future registration decisions.

The Biopesticide Program funded **34** research proposals to provide data to support expansions on a number of biopesticide registrations. The program funded **4** Early Stage, **20** Advanced Stage and **10** Demonstration Stage projects

IR-4 hosted workshops in 2009 for both the Food and Ornamental Horticulture programs with **175** and **105** stakeholder/participants, respectively, setting future research priorities. Preliminary research programs are planned with IR-4 intending to have a slightly larger research effort in both food and ornamental crop research during 2010.

IR-4 spent a significant amount of time in 2009 planning for the future. It started with a Strategic Planning Conference in December 2008 where stakeholders had an opportunity to provide suggestions for future directions that was integrated into "*A Strategic Plan for IR-4 2009-2014*" that was finalized in April. This plan set the foundation to strengthen the existing core food, ornamental and biopesticide programs by enhancing them with

additional efficacy testing, management of invasive species that attack specialty crops, activities that reduce or eliminate trade barriers caused by pesticide residues and support for organic specialty crop production. The Strategic Plan also included a new cooperative initiative to provide regulatory assistance to facilitate the registration of pesticides to manage arthropod pests of medical concern. Many of the mission enhancements to IR-4 are further discussed in this document.

The new IR-4 Strategic Plan, along with activities of the IR-4 Project, was reviewed by a panel of experts during May. This Peer Review, sponsored by CSREES, was intended to look at the structure and function of IR-4 and ways IR-4 could do a better job serving the needs of its primary stakeholders. This review was very complementary to IR-4. However, the panel did have some solid recommendations on how to further improve IR-4. These recommendations are currently being implemented.

The Peer Review was a critical step in the comprehensive reauthorization process of IR-4 by USDA and the State Agricultural Experiment Stations. By the end of the calendar year, 2009, a detailed proposal to renew IR-4 was ready for submission to the State Agricultural Experiment Station Directors.

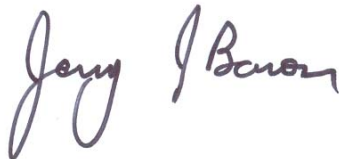
IR-4 continues to bring significant value to specialty crop growers. In 2007, The Center for Economic Analysis at Michigan State University first published a report noting IR-4's food program contributes \$7.7 billion annually to the gross domestic product (GDP). A 2008 report by this same group found the IR-4's ornamental horticulture program provides an additional \$1.2 billion to the GDP. This magnitude of return on tax payer investment data continues to give reason for additional USDA funding. And for the third year in a row, Congress has provided IR-4 with increased funding; funding for IR-4 through the National Institute of Food and Agriculture (NIFA) sources was increased by \$180,000 to \$12.18 million. In addition to the above, IR-4 continues to successfully compete for additional grants. In 2009, IR-4 was awarded three grants through USDA for international activities and public health pesticides.

There are challenges facing IR-4 and future success in providing growers of specialty crops and minor use stakeholders new registrations. Regulatory uncertainties with many chemical and biopesticides will continue as EPA implements the provisions on several court decisions. Safety factors to provide for additional protections for certain populations could likely limit some registrations. With that, it is extremely important that IR-4 continue to work closely with EPA and others to select the most effective pest management products for IR-4 sponsored studies with the lowest risk.

IR-4 hopes to expand our communication of its successes and challenges to stakeholders. In addition to the traditional newsletter and webpage (www.IR4.rutgers.edu), IR-4 has established a presence on Facebook. We are using the newest technologies to broaden our reach to stakeholders.

In closing, we anticipate another successful and productive year for IR-4 in 2010. We again thank all of the participants in the IR-4 Project for their contributions to current and future success. Please contact me (jbaron@aesop.rutgers.edu) if I can provide any assistance.

Sincerely yours,

A handwritten signature in blue ink that reads "Jerry J. Baron". The signature is written in a cursive style with a large, looped "J" at the beginning.

Executive Director
The IR-4 Project

ANNUAL REPORT OF THE IR-4 PROJECT (NRSP-4/IR-4)

January 1, 2009 - December 31, 2009

PROJECT

National Research Service Project No. 4 (NRSP/IR-4) - Specialty Crops Pest Management
January 1, 2009 to December 31, 2009.

COOPERATING AGENCIES AND PRINCIPAL LEADERS

The IR-4 Project has close working associations with commodity growers/commodity organizations, the state agricultural experiment stations/land grant university system, the crop protection industry, the United States Department of Agriculture (including Agriculture Research Service, Foreign Agriculture Service and the National Institute of Food and Agriculture), US Environmental Protection Agency, the Department of Defense-Deployed Warfighter Protection Program, California's Department of Pesticide Regulation and Canada's Pest Management Regulatory Agency as well as Pest Management Centre in Agriculture and Agri-Food Canada to provide the latest pest control tools to US specialty crop growers. Cooperating agencies, principal leaders of the project, technical managers and IR-4 State and Federal Liaison Representatives are shown in Attachment 1.

Background

The IR-4 Project was organized in 1963 by the Directors of the State Agricultural Experiment Stations (SAES) to facilitate regulatory clearances for crop protection chemicals on specialty or minor food crops (fruits, vegetables, nuts, herbs, etc) as well as minor pesticide uses on major crops (corn, soybean, cotton, small grains, etc.). The companies involved in developing, registering and marketing crop protection chemicals do not view the relatively small markets associated with specialty crops and minor uses as a priority business objective because of the limited potential return on investment.

In 1977, IR-4 expanded its objectives to include registration of pest control products for the protection of nursery, floral and Christmas trees. In 1982 the objective to support biopesticides was added. For all three objectives (Food, Ornamental Horticulture and Biopesticide Programs) IR-4 provides national coordination, technical guidance and funding for field trials and laboratory expertise to develop residue and other appropriate data required by the US Environmental Protection Agency (EPA) and the crop protection industry to register the minor uses.

The IR-4 Project is funded by USDA in partnership with the SAES. The majority of USDA funding for the IR-4 Project comes through the National Institute of Food and Agriculture (NIFA-formerly called Cooperative State Research Education and Extension Service). The Agriculture Research Service (ARS) established a companion minor use program in 1976 to provide further program support. Recently, USDA-Foreign Agriculture Service (FAS) has provided IR-4 resources to work on international activities to support specialty crop exports. The SAES contributes financial resources through Multi-State Research Funds and a significant amount of in-kind contributions by housing IR-4 Field Research Centers, Analytical Laboratories and management offices throughout the United States. The crop protection industry also contributes direct financial resources as well as significant in-kind resources.

In 2009, IR-4 approved a new strategic plan. In this plan, IR-4 intends to enhance the activities in the three mission areas, food crops, ornamental horticulture and biopesticides. In the food program, we added a plan to increase the effort to ensure that growers can use the registrations that IR-4 facilitated. This includes the development of additional efficacy data to encourage the companies to actively market new uses. Additionally, IR-4 will aid in the harmonization of pesticide use and country-specific Maximum Residue Levels (MRLs) between US and its global trading partners. In the ornamental area, more emphasis is being placed on efficacy testing, including testing of new products to manage invasive plant pests. The biopesticide mission is enhanced to support pest management tools for use in crops destined for organic markets. Finally, IR-4 added a new cooperative project with USDA-ARS and the Department of Defense's Deployed Warfighter Protection Program to provide regulatory support for public health pesticides.

Further details on the IR-4 Project can be found on the IR-4 Project's website: <http://ir4.rutgers.edu>

Food Program

The regulatory approval of safe and effective crop protection chemicals on food crops continues to be the central objective of the IR-4 Project. IR-4 is committed to provide the support required to give growers the tools they need to be successful and competitive. IR-4 most often develops residue data to support new registrations. However, the need for product performance data has become more common over the past few years. This is mainly due to the companies requesting some efficacy and/or crop safety data prior to registration as IR-4 has continued to expand crop groups and extrapolate the results from residue studies.

Research Activities

Since 1963, IR-4 stakeholders have submitted **10,542** requests for assistance to the IR-4 Food Program. Of these, **676** are currently considered researchable projects, while the remainder have been addressed through previous research and regulatory submissions or cannot be addressed at this time. In 2009, **282** new requests were submitted by various stakeholders.

The potential researchable projects for 2009 were prioritized in September, 2008 at the IR-4 Food Use Workshop, in Sacramento, CA. Based on the outcome of this workshop and other priority setting mechanisms, IR-4 scheduled **109** studies consisting of **553** field trials. The specific studies including the test chemical and crop, field trials and research cooperators in 2009 are shown in Attachment 2.

Field trials are assigned to IR-4 Field Research Centers and sample analyses to Analytical Laboratories at the SAES or USDA-ARS. When necessary, other cooperating facilities or contractors are utilized to ensure projects are completed in a timely manner. In most studies, the chemical is applied in the field in a manner that simulates proposed grower use of the product on the target specialty crop. When the crop is at the appropriate stage, samples of the crop are collected and shipped to the analytical laboratory where the amount of chemical remaining in or on the crop is determined. Field and laboratory data from this research are compiled in a regulatory package and submitted to the EPA to request a pesticide tolerance or MRL.

Submissions and Success

IR-4 submitted data for **109** IR-4 projects along with **17** crop group requests for a total of **126 submissions** consisting of **36** chemicals to EPA and/or industry to support new registrations, label changes, or re-registration (see Attachment 3). EPA has challenged IR-4 to increase efficiency by bundling as many uses as possible for each chemical into each submission. IR-4's response to this request is reflected in IR-4 bundles that continue to get larger and in 2009 there were no repeat submissions for the same active ingredient. Some of the submissions were bundled with residue data from as many as 11 crops/crop fractions. This bundling allows EPA to make the most efficient use of their resources for each review. IR-4 also initiated a new timeline strategy in 2009 to more efficiently bundle submissions. The new strategy will be to include as many uses as possible for a given chemical within a year. If work for a given chemical occurs over two years, then studies for both years will be bundled into the same submission. As noted above, bundling saves EPA resources, including science review time and *Federal Register* drafting and publication costs. IR-4 is also working with Registrants to coordinate submissions for a given chemical.

EPA established a total of **219** permanent tolerances in 2009 based on IR-4 submissions. This continues to account for over 50% of all EPA new tolerances established on already registered products. These tolerances, considering crop grouping and crop definitions, will support up to **952** new specialty crops on product labels. A complete list of these new uses can be found in Attachment 4. In total, EPA reviewed **32** chemistries for IR-4 in 2009, which compares to **33** in 2007 and **41** in 2008. The 952 registrations in 2009 bring the IR-4 46 year total to **13,008**.

A listing of the IR-4 projects in the queue for future submission to EPA is included as Attachment 5. It is expected that approximately 50% of EPA approvals in future years will continue to be associated with IR-4 submissions. EPA posts their Multi-Year work plan that includes IR-4 pending submissions at: <http://www.epa.gov/opprd001/workplan/newuse.htm>. IR-4 submissions are generally reviewed by EPA and a tolerance established within a 15 month review timeline.

IR-4 continues to support EPA's goal of encouraging the use of pesticides that pose less risk to human health and the environment compared to existing conventional alternatives. Since EPA places a high priority on assisting

growers in transitioning to reduced risk approaches for pest management and tracks that progress closely, IR-4 re-established its reduced risk program and made **16** reduced risk requests of EPA in 2009.

Regulatory Compliance

Good Laboratory Practice Standards (GLP's as noted in Chapter 40, Code of Federal Regulations, Part 160) compliance is paramount to the success of the IR-4 Project's Food Program. Key components of compliance are the activities of the IR-4 Project's Quality Assurance Unit (QAU). The QAU continues to provide monitoring and support to cooperating scientists throughout the United States. Audits of facilities and ongoing field and laboratory procedures provide assurance that IR-4's data will be accepted by the crop protection industry and EPA.

The Annual QA Planning Meeting was held on March 10-11, 2009 in Gainesville, FL. At this meeting, the audit plan for 2009 was created. For 2009, regular inspections included **30** facility, **209** field in-life, **72** analytical in-life, **64** analytical summary report/data audits and **582** field data book audits. During the 2009 calendar year, **69** final reports and amended reports were audited.

In addition to their standard duties, members of the IR-4 QAU were involved in EPA GLP compliance inspections. Six IR-4 participating testing sites were audited in 2009 by the EPA for GLP compliance and data integrity. A total of **107** IR-4 related facility inspections for GLP compliance have occurred since April 27, 1997.

Crop Grouping Initiative

Crop grouping enables the establishment of residue tolerances for a group of crops based on residue data from representative crops from the group or subgroup. The IR-4 Project, with support from the International Crop Grouping Consulting Committee (ICGCC), continues to lead an effort to update the EPA crop group regulation to not only incorporate "orphan" crops that are not members of a crop group, but also to develop new crop groups. The ultimate goal is to pursue a harmonized international crop grouping system to facilitate international Maximum Residue Levels (MRLs) and international trade.

The revised Herb and Spice crop group 19 was submitted to EPA by IR-4 in July, 2009. Analysis of Pome Fruit crop group 11 (submitted in 2006) and Stone fruit crop group 12 (submitted in 2007) was conducted by the assigned EPA HED scientist with input from the Canadian Pest Management Regulatory Agency (PMRA). These crop groups were then submitted to the EPA's Health Effects Division Chemistry and Safety Advisory Council (ChemSAC) and were reviewed in March, 2009 (Pome fruit) and July, 2009 (Stone fruit). Publication in the *Federal Register* of the revised crop groups (Fruiting Vegetables, Oilseed, Citrus and Pome Fruit) is expected in early 2010. IR-4 and the ICGCC are currently working on the creation of two new crop groups (Tropical and Subtropical fruit – edible peel and Tropical and Subtropical fruit – inedible peel) and revision of the Leafy Vegetables (except Brassica vegetables) crop group 4 and Brassica (cole) Leafy Vegetable crop group 5.

Efforts to harmonize crop grouping systems between the US and Codex Committee of Pesticide Residues (CCPR) continue with cooperative efforts between the US and the Netherlands for revisions in the Bulb Vegetable, Berries and small fruits, Edible Fungi, Fruiting Vegetables (except Cucurbits), Oilseed, Citrus Fruits, Pome Fruit and Stone Fruit Commodity groups. Proposed revisions to the Tree Nut group will also be presented at the April 2010 CCPR meeting in China. Also, the document "Draft Principles and Guidance on the Selection of Representative Commodities for the Extrapolation of MRLs to Commodity Groups" has been revised with comments and input from the Codex Electronic Working Group. This document will be agenda item 6(d) at the 2010 CCPR meeting.

Seed Technology Initiative:

IR-4 continued its seed treatment initiative in 2009 by exploring the potential of DuPont's new insecticide chlorantraniliprole on snap beans. Seed treatment with this product was shown to be efficacious against European corn borer. DuPont plans to follow up on these findings in 2010. No further IR-4 research is being planned at this point.

International Activities:

As global markets for US produced specialty crops continue to grow, so does IR-4's involvement with global harmonization of MRLs and other global issues. IR-4 continues to participate in global organizations that involve pesticide issues and commodity exports. In North America, IR-4 cooperates with Canada and its Minor Use Program. In 2009, **16** new cooperative projects were started that consisted of numerous field trials in both

countries. IR-4 also shares ornamental efficacy and crop safety data with Canada. There is good exchange of personnel; AAFC participated in IR-4 meetings and vice versa. The minor use joint review process (EPA/Canada's PMRA) continues to save resources since only one agency is reviewing the residue data; but more importantly, both agencies are establishing MRLs at the same level and at the same time to prevent trade irritants before they happen. IR-4 also made a number of data submissions to CCCPR that should support Codex MRLs in the future. These submissions included Indoxacarb, Methoxyfenozide and Buprofezin as well as other submissions of IR-4 data made by cooperating registrants. The crops supported by IR-4 are presented on the last page of Attachment 3.

At the request of EPA, IR-4 personnel are part of the US delegation to both the CCPR and Organisation for Economic Co-operation and Development (OECD) Working Group on Pesticides. IR-4 plays a key role on the OECD Expert Group on Minor Uses. Over the past several years a number of developed and developing countries have begun to establish minor use programs. Additionally, other countries are considering expanding existing programs. The knowledge and expertise of IR-4 is deemed useful to these countries as these minor use programs evolve and therefore, our assistance has been sought on occasion.

Following up on the successful Global Minor Use Summit, IR-4 will continue to work with other specialty crop programs throughout the world to reduce the data development burden on any single country and harmonize MRLs. IR-4 has received funding from USDA-Foreign Agriculture Service to conduct a global study examining the influence of geographic location on residues. This study will provide data and allow scientists to determine if geographic zone affects the ultimate residues in the test crop. For this study, premeasured vials of the four pesticide chemicals were transferred into identical application equipment and applied to tomatoes growing at 27 locations throughout the world. The tomato residue samples were harvested and residue analysis is ongoing.

Ornamental Horticulture Program

The Ornamental Horticulture Program continues to support an industry valued at over \$16.9 billion in annual sales. This industry is quite complex because growers cover many diverse markets including flowers, bulbs, houseplants, perennials, trees, shrubs and more. These plants are grown and maintained in greenhouses, nurseries, commercial/residential landscapes, interiorscapes, Christmas tree farms, and sod farms.

Research Activities

In 2009, IR-4 conducted **1212** ornamental horticulture research trials to support registrations in the greenhouse, nursery, landscape, Christmas tree, and forestry industries. Of these **435** were efficacy trials designed to compare different products to manage pests and diseases and to measure the impact of growth regulators; the remaining trials were conducted to determine the level of phytotoxicity to crops with herbicides used to manage common weeds in and around nurseries. Please see Table 1 for a summary of research activities and Attachment 6 for a complete listing of 2009 field cooperators and Attachment 7 for research activities listed by project.

Table 1. Summary of IR-4's 2009 Ornamental Horticulture Program Research Activities.

Category	2009		
	Efficacy	Crop Safety	Total
Number of Studies (PR Numbers) with Planned Trials	326	483	809
Number of Trials	435	777	1,212

Submissions and Successes

During 2009, **16** data summaries were compiled based upon research reports submitted by researchers. See Attachment 8 for Abstracts from the individual reports. The reports compiled were Azoxystrobin Crop Safety and Efficacy, Clopyralid Crop Safety, Dimethenamid-p Crop Safety, Dimethenamid-p + Pendimethalin Crop Safety, EXC3898 Crop Safety, F6875 Crop Safety, Flumioxazin Crop Safety, Mesotrione Crop Safety, Oxyfluorfen Crop Safety, Pendimethalin Crop Safety, Phytophthora Efficacy, Sulfentrazone Crop Safety, Thrips Efficacy, V10142 Crop Safety, Whitefly Efficacy, and Woody Plant Branching Impact by PGRs. Data from 4,250 field trials contributed to the writing of these reports. Table 2 lists the number of trials by IR-4 Region that were used in the data summaries.

Table 2. 2009 Ornamental Horticulture Program Research Summaries.

Region	Number of Trials
North Central	378
North East	800
Southern	1,222
Western	958
USDA-ARS	882
Total	4,240

During 2009, 2 label amendments were granted to add new crops partially based on IR-4 data submitted to manufacturers: Broadstar 0.25G VC1604 (flumioxazin) and Gallery 75DF (isoxaben). IR-4 data also contributed to 4 state registrations where efficacy or crop safety data were reviewed: Gallery 75DF (isoxaben), Pageant 38WG (boscalis + pyraclostrobin), Sedgehammer (halosulfuron), and Pylon (chlorfenapyr). Research for one product was terminated and a decision was made not to pursue registration: EXC3898. During 2009, Canada registered BroadStar (flumioxazin) and Sureguard (flumioxazin) partially based on data provided by IR-4. IR-4 data from 679 field trials contributed to these actions. This impacted 614 ornamental crops. See Table 3 for details.

Table 3. Ornamental Horticulture Program Contributions to 2009 Registrations.

Category	2009		
	Efficacy	Crop Safety	Total
New US EPA Product Registrations ^a	0	0	0
New International Registrations	0	2	2
US EPA Label Amendments ^b	0	2	2
State Registrations ^c	1	3	4
Research/Registration Terminations	0	1	1
Number of Trials Contributing to Registrations ^d	10	669	679
North Central	4	42	46
North East	0	98	98
Southern	4	202	206
Western	2	102	104
USDA-ARS	0	225	225
Number of Impacted Crops ^e	403	211	614

^a New products for the ornamental horticulture industry based on data collected through IR-4 and submitted to manufacturers in previous years.

^b Label updates on existing products for the ornamental horticulture industry based on data collected through IR-4 and submitted to manufacturers in previous years. In 2009, IR-4 data contributed to label updates on Gallery DF (isoxaben) and formulation change for BroadStar 0.25G (flumioxazin).

^c State registrations and special local needs registrations on federally registered products for the ornamental horticulture industry based on data collected through IR-4 and submitted to manufacturers in previous years. In 2009, IR-4 data contributed to the registration of Gallery 75DF (isoxaben), and Pageant (pyraclostrobin + boscalid) in CA, an SLN for Sedgehammer (halosulfuron), and a 2ee state registration for Pylon (chlorfenapyr).

^d The total number of trials where data was utilized for registrations.

^e The number of impacted crops is an estimate of the total plant species grown commercially for ornamental uses impacted by the IR-4 data. For example, *Phytophthora cinnamomi* is known to infect 204 plant species. By adding *P. cinnamomi* to the Segway label, IR-4 data has impacted 204 crops.

Biopesticide and Organic Support Program

The IR-4 Biopesticide and Organic Support Program has the goal of facilitating the registration of crop protection products classified by EPA as Biopesticides. IR-4 has four major functions in the biopesticide arena including: (1) an “Early Stage” grants program to fund early stage biopesticide research proposals - for products whose core data packages have not yet been submitted to EPA; (2) an “Advanced Stage” grants program to fund advanced stage biopesticide research proposals - for products that have been registered by EPA or are in the registration process and additional data is needed to assist with expansion of the registration to new crops or to new pests; (3) a “Demonstration” grants program to fund large scale demonstration plots to gather information and provide outreach indicating that biopesticides can be a useful tool in pest management systems; and (4) a registration

assistance program – to provide small biopesticide companies with regulatory advice and petition preparation assistance.

Research Activities

The Biopesticide Research Program is in its twelfth year of competitive grant funding of projects, amounting to over \$5 million in grants to researchers since its inception. In 2009, the biopesticide grant program funded 4 Early Stage, 20 Advanced Stage and 10 Demonstration Stage projects (See Attachment 9). These were conducted at 20 different universities and USDA research units and on 100 product-crop combinations. The demonstration stage grants were co-funded (over \$140,000 from EPA) and co-reviewed by EPA and IR-4.

Submissions and Successes

In 2009, IR-4 submissions to EPA included amended volumes for acetic acid and *Trichoderma hamatum* 382, Section 3 submissions for Bacteriophage of *Clavibacter michiganensis* subsp. *michiganensis* in tomato, Tobacco Mild Green Mosaic Tobamovirus and *Aspergillus flavus* for AF36 on Corn and a Section 18 Emergency Exemption for 9,10 Anthraquinone in corn and rice. In addition, from efficacy research funded through the biopesticide grant program, there were 7 additions of crops to biopesticide labels (see Attachment 9).

The Biopesticide and Organic Product Label Database had over 28,000 hits and is undergoing continual updating. The label database was initially funded through an EPA Region 2 grant.

Impact

The successes, accomplishments and deliverables of the IR-4 Project have been documented by the Food Program and its associated initiatives, the Ornamental Horticulture Program and the Biopesticide and Organic Support Program. Without the existence of the IR-4 Project, fewer safe and effective crop protection chemicals and biological alternatives would be available for use on food and ornamental specialty crops.

The accomplishments of the IR-4 Project are many. Specialty crop growers often report on the impact of the IR-4 Project to their business. Some have said, “Without the IR-4 Project and what they provide, my farm would be out of business”. In an effort to capture a solid assessment of program value, in 2007, Michigan State University’s Center of Economic Analysis conducted an economic impact study of IR-4’s food use activities. Their assessment indicated that the efforts of the IR-4 Project add \$7.7 billion dollars annually to the gross domestic product (GDP). In 2008, they conducted an economic analysis of IR-4’s ornamental horticulture program. They concluded this program adds an additional \$1.2 billion annually to the GDP.

FY 2009 Appropriations and other funding

The IR-4 Project receives its funding from several sources. The majority of funding is directed through NIFA and ARS. There are also direct and in-kind contributions from the state agricultural experiment stations, grants from industry and grants from USDA-Foreign Agriculture Service (FAS).

The FY 2009 appropriation for the IR-4 Project through NIFA was increased to \$12.0 million from the FY 2008 appropriation of \$11.3 million. The amount appropriated to the USDA-ARS Minor Use Program remained at \$4.0 million. The Directors of the state agricultural experiment stations, through the Multi-state Research Funds, provided the IR-4 Project with \$481,182. USDA-Foreign Agriculture Service provided IR-4 with \$249,000. A cooperative project between IR-4/Department of Defense-Armed Forces Pest Management Board/USDA-ARS provided \$260,000 for regulatory support of public health pesticides. The commodity and crop protection industries were able to assist the IR-4 Project by providing approximately \$1.2 million in grants. Total direct funding for the IR-4 Project during calendar year 2009 was approximately \$18 million.

This value does not include the substantial in-kind contributions provided by the crop protection industry, commodity groups and state agricultural experiment stations. For example, many IR-4 research units are housed at state funded research stations. The host institutions contribute indirect and direct costs as leverage on the IR-4 funds. The crop protection industry always provides characterized test substance and analytical standards to be used in residue studies and they also provide significant technical assistance. Various commodity groups provide funding directed at specific research on new pest control tools critical for growers of their specialty crops.

Future Directions

IR-4 conducted a Strategic Planning Conference in December, 2008 to obtain stakeholder input on program directions for 2009 to 2014. This plan is the roadmap for IR-4 activities over the next five years and was designed to strengthen the existing core food, ornamental and biopesticide programs by enhancing them with additional efficacy testing, management of invasive species that attack specialty crops and activities that reduce or eliminate trade barriers caused by pesticide residues and support for organic specialty crop production. The Strategic Plan also included a new cooperative initiative to provide regulatory assistance to facilitate the registration of pesticides to manage arthropod pests of medical concern.

Activities in 2010

IR-4 will continue to seek input and technical guidance from all of its stakeholders, including state and federal agricultural scientists, state extension agents and specialists, commodity groups, growers, the crop protection industry, food processors, CDPR and the EPA to insure the program maintains its focus on important specialty crop needs. IR-4 goes through an extensive process, including priority setting workshops (2009 Food Use Workshop was conducted September 15 & 16 in Cleveland, OH) and reviewing proposals each year to obtain input on the most critical pest control needs of specialty crop producers; and to prioritize those research needs using committees of regional and national level agriculture experts to best match the program's resources with the current unmet needs.

Food Use Program research for year 2010 will consist of approximately **107** studies supported by **669** field trials. The numbers of IR-4 studies in 2009 and 2010 have been considerably higher compared to the past few years. This is because of increased resources provided from Congress and the larger number of studies only requiring one or two field trials. These "small studies" are triggered because of having to repeat field trials that were compromised because of inclement weather or EPA requiring additional data. The distribution of 2010 field trials within the IR-4 Project consists of 499 conducted by the IR-4 units associated with the state agricultural experiment stations, 119 conducted by USDA-ARS and 51 by Canada. The Canadian Minor Use Program will be fully managing 4 cooperative studies, including sponsorship, study director duties and report writing.

Ornamental Horticulture: In 2010, the research program will focus on high priority projects established at the 2009 workshop (October 6-8, Cleveland OH): bacterial efficacy, pythium efficacy, fungicide crop safety, scale insect efficacy, thrips efficacy and IPM strategies, insecticide crop safety, 2010 herbicide crop safety, early post emergence control, and liverwort efficacy. The 2010 research program also increased each regional coordinator's discretionary funds to sponsor research of regional interest. In 2010, the program will also tackle research on an invasive disease, gladiolus rust, through a USDA-APHIS grant.

For the 2010 **Biopesticide and Organic Support Program**, IR-4 received a total of 52 proposals requesting nearly \$900,000. Out of the 52 proposals 9 are Early Stage, 33 are Advanced Stage and 10 are Demonstration Stage proposals. Final decisions on funded proposals will be made by February 2010.

International: IR-4 will continue to move forward assisting U.S. specialty crop growers to compete in international trade, by aiding in the harmonization of pesticide use and country-specific Maximum Residue Levels (MRLs) that often differ between the U.S. and its global trading partners. IR-4 remains active in global harmonization efforts of NAFTA, the Codex Committee of Pesticide Residues (CCPR) and Organisation for Economic Co-operation and Development. IR-4 has received a grant from USDA-Foreign Agriculture Service to allow IR-4 to take existing data, upgrade the submissions and provide the information to foreign regulatory authorities to establish MRLs to allow US growers less problems in the export of their produce. IR-4 research cooperators are expected to finish much of the field research and laboratory research with the global residue study in 2010.

PUBLICATIONS/PRESENTATIONS

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Arsenovic, M., D.L. Kunkel, and J. J. Baron. 2009. IR-4 Project: Update on Herbicide Registration. Proceedings WSSA, Volume 49, Abstract Number 490.

Barney, W., D.L. Kunkel, and J.J. Baron. 2009. The Use of Crop Grouping in International Maximum Residue Levels (MRLs) Harmonization. *Outlook on Pest Management*, 10, 229-231.

Braverman, M., D.L. Kunkel and J.J. Baron. 2009. International Regulatory Activities of the IR-4 Project and Their Impact on Pesticide Risk Reduction. 6th International IPM Symposium. Portland, OR.

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Braverman, M . 2009. International Regulatory Activities of the IR-4 Project and Their Impact on Pesticide Risk Reduction. The 2nd Thai-American Symposium on Plant Biomass, Biotechnology and Agriculture. Department of Botany, Faculty of Science, Chulalongkorn University, Bangkok , Thailand.

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Part 1 <http://www.youtube.com/watch?v=o23QUBJm7rc>

Part 2 <http://www.youtube.com/watch?v=OL8pZs6plro&NR=1>

Part 3 <http://www.youtube.com/watch?v=g9B1rmcUXro>

Part 4 <http://www.youtube.com/watch?v=Helt0xPiJ1s>

Kunkel, D.L., J.J. Baron, M. Braverman, W. Barney, J. Corley and V.R. Starner. 2009. “Global Minor Use Activities and Progress”, American Chemical Society Meeting, August 2009.

Ludwig, S., A. Taylor, & C.L. Palmer. 2009. Evaluation of insecticide treated seeds to control green peach aphids and diamondback moths. Annual Meeting of the Entomological Society of America. Indianapolis, IN.

Miller, S., and C.L. Palmer. 2009. The IR-4 Ornamental Horticulture Program Contributes \$1.2 Billion to US GDP! IR-4 Newsletter. Vol. 40 No. 3. July 2009.

Palmer, C.L., J. Baron, and E. Vea. 2009. Update on the 2008 Weed Science Research Program and 2008 Research Priorities. Proceedings of the 64th Northeastern Weed Science Society.

Palmer, C.L. 2009. IR-4: Current PGR Research and Future Priorities. Plant Growth Regulator Society of America Annual Meeting. Aug 5, 2009.

Palmer, C.L. 2009. IR-4: Your Ally Against Western Flower Thrips & Other Critters. Ohio Florist Association's Ohio Short Course. July 14, 2009.

Palmer, C.L. 2009. The IR-4 Project. Presentation to The North Central States Chapter of the Horticulture Inspectors Association. Oct 20, 2009.

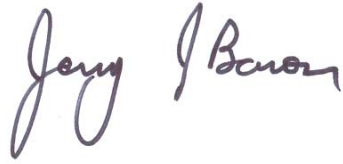
Palmer, C.L. 2009. The Ornamental Horticulture Program. Invited presentation at the IR-4 National Training Meeting. Feb, 2009.

Palmer, C.L. 2009. Spotlight on Ornamentals. IR-4 Newsletter. Vol. 40 No. 3. July 2009.

Starner, V.R., J.J. Baron, D.L. Kunkel and S. Novack. 2009. Invited lecture "The IR-4 Project at Rutgers" 2/16/09 in Rutgers Entomology course "Agricultural Entomology and Pest Management" taught by Dr. George Hamilton.

Starner, V.R. and J.J. Baron. 2009. Invited presentation "IR-4 Project Update from HQ" at the IR-4 Western Region SLR Meeting, Bozeman/Pray, MT, 3/17-18/09.

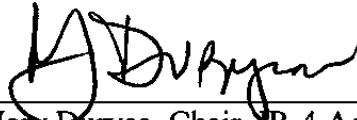
Approved by:



**J.J. Baron, Executive Director
IR-4 Project, NJ Agricultural Experiment Station
Rutgers, The State University of New Jersey**



**M.R. Marshall, Chair,
IR-4 Project Management Committee
University of Florida**



**Mary Duryea, Chair, IR-4 Administrative Advisers
University of Florida**

ATTACHMENT 1

Participants in the Process

Growers/Commodity Organizations/Food Processors – These are the primary customers for IR-4 Project services. A concerted effort is always made to seek input from growers/commodity group representatives for establishing research priority setting policies. Additionally, IR-4 has the IR-4 **Commodity Liaison Committee (CLC)**. The CLC provides input to the IR-4 Project Management Committee on overall operations and program direction. They are often effective communicators to Congress on the importance of the IR-4 Project and its deliverables to specialty crop agriculture in the United States. Members include:

Dr. Michael Aerts, Florida Fruit and Vegetable Association
Mr. Mark Arney, Nat'l Watermelon Promotion Board
Mr. Kirk Baumann, Ginseng Board of Wisconsin
Dr. Lori Berger, California Specialty Crops Council
Dr. Michael Bledsoe, Village Farms, L.P.
Dr. A. Richard Bonanno, Bonanno Farm Trust
Mr. Bruce Buurma, Buurma Farms Inc.
Mr. James R. Cranney, California Citrus Quality Council
Dr. Thomas G. Davenport, National Grape Cooperative
Dr. Brian R. Flood, Del Monte USA
Mrs. Ann E. George, Washington Hop Commission
Mr. Hank Giclas, Western Growers Association
Mr. John Keeling, National Potato Council
Mr. Phil Korson, Cherry Marketing Institute
Mr. Rocky Lundy, Mint Industry Research Council
Mr. Eric Maurer, Cheminova, Inc.
Mr. Reed Olszack, Tropical Fruit Growers of South Florida Inc.
Ms. Laura Phelps, American Mushroom Institute
Mr. Ray Ratto, Ratto Brothers
Ms. Lin Schmale, Society of American Florists
Mr. Todd Scholz, USA Dry Pea & Lentil Council
Dr. Alan Schreiber, Agriculture Development Group, Inc.
Dr. Marc Tefteau, American Nursery and Landscape Assoc.
Mr. Dave Trinka, MBG Marketing

Crop Protection Industry - Without the cooperation of the biopesticide and chemical companies who discover, develop, register, and market their new technologies, IR-4 would not be able to help specialty crop growers have availability to the newest crop protection tools. IR-4 personnel continue to have managerial and technical review meetings with the crop protection industry companies. In 2009, meetings were held with 30 different companies.

State Agricultural Experiment Stations/Land Grant Universities – The State Agricultural Experiment Stations are the cornerstone of the IR-4 Program. This group provides a limited amount of direct support (\$481,182 through Multi-State Research Funds) plus a significant amount of resources via in-kind support by hosting and co-funding the IR-4 Field Research Sites, the IR-4 analytical laboratories and the IR-4 regional and national management offices. Specific acknowledgement goes to the directors of the SAES in CA, FL, MI, and NY that host regional IR-4 offices and NJ that hosts IR-4 Project Headquarters.

USDA (NIFA, ARS, FAS and APHIS) – NIFA and ARS provide the majority of the direct resources that IR-4 utilizes to operate. Additionally, numerous ARS personnel are directly involved in the IR-4 research effort at three analytical laboratories and 8 field research centers. FAS has been instrumental in the expansion of IR-4 to support IR-4 international activities. APHIS is cooperating with IR-4 on invasive species management and biotechnology registration.

Agriculture and Agri-Food Canada (AAFC) Pest Management Centre. The partnership between IR-4 and AAFC'S Pest Management Centre continued to flourish in 2009. There are numerous other cooperative projects

ATTACHMENT 1 Continued

that are in the process of being completed and submitted to both countries' regulatory agencies. These projects are the culmination of year-round efforts to work cooperatively. Members of the AAFC Pest Management Centre routinely join IR-4 at meetings with the crop protection industry. Additionally, several AAFC team members attended the IR-4 Food Use and Ornamental Workshops as well as the National Research Planning Meeting to facilitate better cooperation.

EPA. - IR-4 continues to work closely with EPA to meet the needs of growers - to have a supply of safe and effective pest management tools. We continue to have Technical Working Group (TWG) meetings where EPA and IR-4 scientists discuss new regulatory approaches and ways to enhance the ongoing petition submission/review process, as well as ways to improve regulatory efficiencies. IR-4 continues to assist EPA in their effort to update data requirements, specifically the number and location of field trials. Working with EPA, **California's Department of Pesticide Regulation (CDPR) and Health Canada's Pest Management Regulatory Agency (PMRA)** participates in the many aspects of minor use pesticide registration. CDPR and PMRA have been active members of the TWG since 2000. They are productive contributors to the overall accomplishments as noted in the EPA section through domestic and NAFTA work share programs on IR-4 petitions. CDPR continues its commitment to provide residue chemistry reviews for certain IR-4 petitions. PMRA staff continued to support the activities of AAFC Pest Management Centre on research projects selected to partner with IR-4 for joint resource sharing. The minor use joint review process stipulates an expedited review timeline. It is expected that as many as 15 joint minor use reviews will eventually take place each year between the EPA and Canada's PMRA, with the final result of providing simultaneous registrations on new products in both countries. These efforts along with support from CDPR help to provide more resources to EPA resulting in an even higher number of IR-4 project completions.

IR-4 LEADERSHIP

Project Management Committee (PMC):

Dr. Jerry Baron, IR-4 Project Headquarters – IR-4 Project Executive Director
Dr. Douglas Buhler, Michigan State University – Administrative Advisor, North Central Region
Dr. Mary Duryea, University of Florida - Administrative Advisor, Southern Region
Dr. Robert Hollingworth, Michigan State University – Regional Director, North Central Region
Dr. Monte Johnson, USDA-CSREES
Mr. Rocky Lundy, Mint Industry Research Council – Commodity Liaison Committee Chair
Dr. Maurice Marshall, University of Florida - Regional Director, Southern Region & **PMC Chair**
Dr. Marion Miller, University of California, Davis - Regional Director, Western Region
Dr. Michael Parrella, University of California, Davis - Administrative Advisor, Western Region
Dr. Mark Robson, Rutgers University - Administrative Advisor, Northeast Region
Dr. Sally Schneider, USDA-ARS - Administrative Advisor, ARS
Dr. Paul Schwartz, Jr. USDA-ARS – Director Minor Use Program
Dr. David Soderlund, Cornell University - Regional Director, Northeast Region

IR-4 Project Headquarters (HQ)

IR-4 Headquarters is located at the 500 College Road East, Suite 201W, Princeton, NJ 08540; (732) 932-9575

Dr. Marija Arsenovic – Manager, Weed Science Activities
Ms. Tammy Barkalow – Assistant Director, Quality Assurance
Mr. Bill Barney – Manager, Crop Grouping
Dr. Jerry Baron – Executive Director
Dr. Michael Braverman – Manager, Biopesticides and Organic Support Program
Ms. Uta Burke – Administrative Support
Dr. Debbie Carpenter – Manager, Food Crop Registrations
Dr. Johannes Corley – Study Director/Research Coordinator
Dr. Keith Dorschner – Manager, Entomology Activities
Ms. Cheryl Ferrazoli – Administrative Support

ATTACHMENT 1 Continued

Ms. Jane Forder – Quality Assurance
Ms. Kathryn Hackett-Fields – Quality Assurance
Ms. Lori Harrison – Administrative Support
Ms. Kathryn Homa – Study Director and Research Coordinator
Ms. Diane Infante – Data Manager and Administrative Support
Dr. Daniel Kunkel – Associate Director, Food & International Programs
Mr. Raymond Leonard – Study Director/Research Coordinator
Dr. Karl Malamud-Roam – Manager, Public Health Pesticides Program
Ms. Sherri Nagahiro – Business Manager
Ms. Sherri Novack – Manager, Communications and Outreach
Dr. Cristi Palmer – Manager, Ornamental Horticulture Program
Ms. Bharti Patel – Quality Assurance
Mr. Kenneth Samoil – Study Director/Research Coordinator
Ms. Karen Sims – Administrative Support
Dr. Van Starner – Assistant Director, Research Planning & Outreach
Ms. Tracey Switek – Study Director and Research Coordinator
Dr. David Thompson - Manager, Plant Pathology Activities
Ms. Juliet Thompson – Administrative Support

Field Coordinators (Regional and ARS)

Ms. Edith Lurvey, Cornell University – Northeast Region
Dr. Satoru Miyazaki, Michigan State University – North Central Region
Dr. Michelle Samuel-Foo, University of Florida – Southern Region
Dr. Paul Schwartz Jr., USDA-ARS – ARS Office of Minor Use Pesticides
Ms. Rebecca Sisco, University of California, Davis – Western Region

Laboratory Coordinators (Regional and ARS)

Dr. Wlodzimierz (Wlodek) Borejsza-Wysocki, Cornell University – Northeast Region
Mr. Thomas Hendricks, USDA-ARS – Tifton, GA
Dr. Matt Hengel, University of California, Davis – Western Region
Dr. Wayne Jiang, Michigan State University – North Central Region
Ms. Emy Pfeil, USDA-ARS, - Beltsville, MD
Mr. T. Todd Wixson, USDA-ARS – Wapato, WA
Ms. Jau Yoh, University of Florida, Southern Region

Regional Quality Assurance Unit Coordinators

Ms. Barbara Anderson, Cornell University – Northeast Region
Dr. Zhongxiao (Michael) Chen, Michigan State University – North Central Region
Ms. Kathleen Knight, University of Florida –Southern Region
Mr. Jim McFarland, University of California, Davis – Western Region

Additional Technical Staff

Ms. Robin Adkins – Quality Assurance, Southern Region
Dr. Diane Bradway - Quality Assurance Consultant
Mr. Martin Beran – Associate Quality Assurance Coordinator, Western Region
Ms. Mary Kay Erickson - Quality Assurance Consultant
Mr. Stephan Flanagan – Associate Field Coordinator, Western Region
Ms. Regina Hornbuckle – Quality Assurance USDA-ARS
Dr. Vince Hubert – Manager, IR-4 Satellite Laboratory, Washington State University

ATTACHMENT 1 Continued

Dr. Bryan Jensen – Quality Assurance Consultant
Mr. Kenneth Kanagalingam – Quality Assurance Consultant
Dr. Derek Killilea – Quality Assurance Consultant
Dr. Q. Li - Manager, IR-4 Satellite Laboratory, University of HI
Ms. Mary Lynn – Quality Assurance Consultant
Mr. John Obrist- Quality Assurance Consultant

State and Federal IR-4 Liaisons Representatives

Northcentral Region

Dr. K.	Al-Khatib	KS (Food Crops)
Dr. R.	Becker	MN
Dr. S.	Clay	SD
Dr. R.	Cloyd	KS (Ornamentals)
Dr. D.	Doohan	OH
Dr. D.	Egel	IN (Co-Liaison)
Dr. R.	Groves	WI
Dr. R.	Hartzler	IA
Dr. D.	Heider	WI
Dr. T.	Jordon	IN (Co-Liaison)
Dr. S.	Kamble	NE
Dr. C.	Krause	USDA-ARS
Dr. S.	Miyazaki	MI
Dr. M.	Reding	USDA-ARS
Dr. D.	Williams	IL
Dr. M.	Williams	USDA-ARS
Dr. R.	Zollinger	ND
VACANT		MO

Northeast Region

Dr. J.	Allen	DC
Dr. E.	Beste	MD
Dr. F.	Caruso	MA
Dr. R.	Chandran	WV
Mr. R.	Frank	USDA-ARS
Dr. R.	Grube	NH
Dr. A.	Hazelrigg	VT
Dr. P.	Heller	PA
Dr. J.	Locke	USDA-ARS
Ms. E.	Lurvey	NY
Dr. T.	Mervosh	CT
Dr. W.	Reissig	NY
Dr. C.	Rodriguez-Saona	NJ
Dr. R.	Webb	USDA-ARS
Dr. S.	Whitney King	DE
Dr. D.	Yarborough	ME

Southern Region

Dr. R.	Bellinger	SC
Dr. R.	Bessin	KY
Dr. N.	Burgos	AR
Dr. C.	Collison	MS
Dr. S.	Culpepper	GA
Dr. R.	Davis	USDA-ARS
Dr. D.	Ferrin	LA
Dr. C.	Gilliam	AL
Dr. S.	Ludwig	TX (Ornamentals)
Mr. C.	Luper	OK

ATTACHMENT 1 Continued

Southern Region Continued

Mr. M. Matocha	TX (Food Crops)
Dr. D. Monks	NC
Dr. M. Samuel-Foo	FL
Dr. A. Simmons	USDA-ARS
Dr. M. Weaver	VA
Mr. T. Webster	USDA-ARS
Dr. A. Wszelaki	TN
VACANT	PR

Western Region

Dr. R. Boydston	USDA-ARS
Dr. M. Burrows	MT
Mr. M. Craig	NM
Mr. J. Davison	NV
Dr. H. Deer	UT
Mr. J. DeFranceco	OR
Dr. M. Ferrell	WY
Dr. N. Grunwald	USDA-ARS
Dr. R. Hirnyck	ID
Dr. P. Kaspari	AK
Dr. M. Kawate	HI
Dr. R. Miller	GU
Dr. J. Munyaneza	USDA-ARS
Dr. J. Palumbo	AZ
Ms. R. Sisco	CA
Dr. D. Walsh	WA
VACANT	CO

ATTACHMENT 2

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG)

ABAMECTIN (MANA,SYNGEN)

ONION (GREEN)

STUDY DIRECTOR

LEONARD

CROP GROUP

BULB VEGETABLE GROUP (03-07B)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: LEAFMINERS, THRIPS

Use Pattern: (PCR): FOLIAR; 0.02 LB.AI/A; 4 APPLIC; 7 DAY INTERVAL; 7 DAY PHI

Comments: MFG CAN ONLY SUPPORT 4 APPLICATIONS:09/07. EPA CAUTION:08/08.

PR #: A4068 **LAB:** 09-BER01

NER - FRD

09-MD18 Ross, Marylee

NCR - FRD

SOR - FRD

09-FL55 Studstill, David

WSR - FRD

09-CA*20 Benzen, Ms. Sharon D.

CANADA - FRD

09-ON02 Riddle, Geoff
09-QC01 Jobin, Tristan

ACETAMIPRID (NISSO,UPI)

GREENS (MUSTARD)

SAMOIL

LEAFY BRASSICA GREENS SUBGROUP
(05B)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: HARLEQUIN BUG

Use Pattern: (PCR): 0.1 LB; 3 DAYS PHI (LABEL RATE IS FOR 7 DAYS)

Comments: TOLERANCE ESTABLISHED, REQUEST FOR NEW PEST AT HIGHER RATE WITH A REDUCED PHI. FUTURE SUBMISSION FOR ASPARAGUS SPEARS (9939), MUSTARD GREENS (9271) & SWEET CORN (10216) ALSO INCLUDE FERNS (9905).

PR #: 09271 **LAB:** 09-CAR05

NER - FRD

NCR - FRD

09-OH*04 Horst, Leona

SOR - FRD

09-SC*03 Wade, Paul
09-GA*06 Fraelich, Ben
09-NC10 Batts, Roger B.
09-TX*19 McCommas, Mr.David
09-AR07 Burgos, N.

WSR - FRD

09-CA*51 Benzen, Ms. Sharon D.
09-CA*52 Benzen, Ms. Sharon D.

CANADA - FRD

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u> ACETOCHLOR (DOWAGR,MONS)	<u>COMMODITY (CROP GROUP)</u> BEAN, PEA (SUCCULENT)	<u>STUDY DIRECTOR</u> ARSENOVIC	<u>CROP GROUP</u> PEA/BEAN SUCCULENT SHELLLED & EDIBLE PODDED SUBGROUPS (06AB)
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Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: WEEDS

Use Pattern: (PCR): ASSIST WITH PLANT-BACK RESTRICITONS

Comments: PLANT BACK RESTRICTIONS ONLY AND NOT FOR IN SEASON USE:08/08. NEED 3 TRIALS IF RESIDUES < 0.1 PPM. DOWARGO OK:09/08 (WORKSHOP). STUDY TO BE CONDUCTED ON SNAP BEANS:10/08.

PR #: 10214 **LAB:** 09-BER05

<u>NER - FRD</u> 09-NY13 Bellinder, Dr. Robin	<u>NCR - FRD</u> 09-WI11 Heider, Daniel J. 09-OH*10 Horst, Leona	<u>SOR - FRD</u> 09-AR09 Burgos, N.	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
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ACIBENZOLAR (SYNGEN)	WATERMELON	THOMPSON	MELON SUBGROUP (09A)
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Residue Data Requirements: COMPLETE

E/CS Data Requirements: COMPLETE

Reasons for Need: FUSARIUM WILT, WATERMELON VINE DECLINE VIRUS

Use Pattern: (PCR): 0.25 OZ/A; FOLIAR OR SOIL DRENCH

Comments: ADDITIONAL PERFORMANCE TRIALS BEING DONE IN 2009 FOR FUSARIUM WILT:03/09.

PR #: P9877 **LAB:** NONE

<u>NER - FRD</u> 09-MDP02 Everts, Kathryn	<u>NCR - FRD</u> 09-INP01 Egel, D.S.	<u>SOR - FRD</u> 09-SCP01 Keinath, Dr. Anthony P.	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
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<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
ACIBENZOLAR (SYNGEN)	STRAWBERRY	THOMPSON	BERRY & SMALL FRUIT (13-07G)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements: COMPLETE			
Reasons for Need: ANGULAR LEAFSPOT			
Use Pattern: (PCR): FOLIAR SPRAY, FROM GREEN-UP THROUGH HARVEST			
Comments: MFG REQUIRES EFFICACY & CROP SAFETY (E/CS) DATA PRIOR TO REGISTRATION: 10/07; IR-4 DOING 2009 EFFICACY TRIALS: 03/09; NEED SAFETY DATA WITH NON-IONIC SURFACTANT: 05/09; CANADA CONDUCTED E/CS TRIALS IN 2009 & PLANNING MORE E/CS TRIALS IN 2010: 01/10			

PR #: P7817 **LAB:** NONE

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MEP01 Yarborough, Dr. Dave		09-FLP01 Peres, N.A.	09-CA*P01 Benzen, Ms. Sharon D.	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
AZOXYSTROBIN + FLUDIOXONIL + DIFENOCONAZOLE ()	POTATO (POSTHARVEST)	THOMPSON	TUBEROUS/CORM SUBGROUP (01CD)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: SILVER SCURF (HELMINTHOSPORIUM SOLANI)			
Use Pattern: (PCR): APPLY TO TUBERS GOING INTO STORAGE; RATE AND USE LIMITATIONS UNKNOWN			
Comments: RESISTANCE MANAGEMENT - WILL NOT REGISTER POST HARVEST FLUDIOXONIL FOR POTATOES TO BE USED FOR SEED: 05/08; NEW POST HARVEST AZOXYSTROBIN FORMULATION TO BE AVAILABLE FOR RESIDUE STUDY IN LATE 2009: 12/08. STUDY FOR PR# A9860 (AZOXYSTROBIN + FLUDIOXONIL) ALSO INCLUDES DIFENOCONAZOLE (10131)			

PR #: A9860 **LAB:** 09-TBD

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-ME04 Yarborough, Dr. Dave	09-W119 Heider, Daniel J.		09-WA32 Groenendale, D. 09-ID19 Meeks, Mr. Will	09-ON14 White, Peter

CHEMICAL (MFG) BETA-CYFLUTHRIN (BAYER) **COMMODITY (CROP GROUP)** FLAX **STUDY DIRECTOR** CORLEY **CROP GROUP** MISCELLANEOUS COMMODITY (99)

Residue Data Requirements: 5

E/CS Data Requirements:

Reasons for Need: GRASSHOPPERS

Use Pattern: (PCR): 1 TO 2.25 OZ/A; MAX APPLIC 2 AT MIN OF 3 WEEK INTERVALS

Comments: NEW STUDY NEEDED:09/08.

PR #: A9026 **LAB:** 09-FLR10

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-ND08	Lee, Curt		
	09-SD03	Clay, Dr. Sharon		
	09-SD04	Clay, Dr. Sharon		
	09-NE05	Spontanski, Jess J.		
	09-ND07	Lee, Curt		

BOSCALID + PYRACLOSTROBIN (BASF) ENDIVE (BELGIAN) THOMPSON LEAVES OF ROOT/TUBER GROUP (02)

Residue Data Requirements:

E/CS Data Requirements:

Reasons for Need: SCLEROTINIA SCLEROTIURUM

Use Pattern: (PCR):

Comments: SUBMISSION FOR ENDIVE (8662), STONE FRUITS (7922), APPLE (8890) & PEAR (9207). WSR RUNNING EFFICACY TRIALS TO DETERMINE CORRECT RATES:03/08. WSR TO RUN NEW RESIDUE TRAILS IN FALL/WINTER 2008/2009 USING GROWER EQUIPMENT & BASF WILL ANALYZE THE SAMPLES:06/ 08.

PR #: A8662 **LAB:** 09-BAR01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA129	Stewart, D.
			09-CA01	Stewart, D.
			09-CA02	Stewart, D.
			09-CA03	Stewart, D.

CHEMICAL (MFG) BOSCALID + PYRACLOSTROBIN (BASF) **COMMODITY (CROP GROUP)** ARTICHOKE **STUDY DIRECTOR** THOMPSON **CROP GROUP** MISCELLANEOUS COMMODITY (99)

Residue Data Requirements:

E/CS Data Requirements:

Reasons for Need: BOTRYTIS SPP.

Use Pattern: (PCR): 18.5 OZ. PRODUCT/A; 50-100 GPA (10-20 GPA BY AIR); APPLY PRIOR TO ONSET OF DISEASE AND CONTINUE AT 14 DAY INTERVALS; NO MORE THAN 4 APPLIC/SEASON; 7-DAY PHI

Comments: MFG WILL ANALYZE SAMPLES:09/05. MFG NEEDS PERFORMANCE DATA: 2X RATE IN 3 SITES PRIOR TO LABELING:05/08. FUTURE SUBMISSION FOR ARTICHOKE (9689) & PERSIMMON (9093).

PR #: P9689 **LAB:** NONE

NER - FRD **NCR - FRD** **SOR - FRD** **WSR - FRD** **CANADA - FRD**

BOSCALID + PYRACLOSTROBIN (BASF) HOPS 09-CAP03 Bari, Dr. Mohammad H.
09-CAP04 Bari, Dr. Mohammad H.
CARPENTER MISCELLANEOUS COMMODITY (99)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: POWDERY MILDEW, DOWNY MILDEW

Use Pattern: (PCR): FROM UPGRADE PROPOSAL, PER CURRENT LABEL: 3 APPLIC PER SEASON AT 14 OZ. PRISTINE FORMULATION PER 100 GALLONS OF DILUTE SPRAY; MAXIMUM OF 84 OZ. PRODUCT PER ACRE PER SEASON; 14-DAY PHI.

Comments: TOL EST, REGISTRATION PENDING. MFG FUNDING 2004 EFFICACY:03/04. MFG LABEL:05/05. USE IS REGISTERED BUT 2 ADDITIONAL RESIDUE TRIALS ARE NEEDED TO SUPPORT A CODEX MRL:10/08. MFG WILL ANALYZE RESIDUE SAMPLES:10/08.

PR #: 08889 **LAB:** 09-BAR03

NER - FRD **NCR - FRD** **SOR - FRD** **WSR - FRD** **CANADA - FRD**

09-WA17 Groenendale, D.
09-ID06 Meeks, Mr. Will

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u> BOSCALID + PYRACLOSTROBIN (BASF)	<u>COMMODITY (CROP GROUP)</u> PERSIMMON	<u>STUDY DIRECTOR</u> THOMPSON	<u>CROP GROUP</u> MISCELLANEOUS COMMODITY (99)
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Residue Data Requirements:

E/CS Data Requirements: COMPLETE

Reasons for Need: FRUIT & FOLIAGE DISEASES

Use Pattern: (PCR): 10.5 TO 14.5 OZ.PRODUCT/A; 0 DAY PHI; MAKE NO MORE THAN 3 SEQUENTIAL APPLIC, NOT MORE THAN 5 APPLIC PER SEASON, IN 50-100 GPA

Comments: MFG NEEDS PERFORMANCE DATA BEFORE LABELING:05/07. FUTURE SUBMISSION FOR ARTICHOKE (9689) & PERSIMMON (9093).

PR #: P9093 **LAB:** NONE

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u> 09-FLP02 Hochmuth, Bob	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
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CARFENTRAZONE-ETHYL (FMC)	MINT	ARSENOVIC	MISCELLANEOUS COMMODITY (99)
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Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: ANNUAL, BI-ANNUAL & PERENNIAL BROADLEAF AND GRASSY WEEDS

Use Pattern: (PCR): 0.51 TO 1.98 FL.OZ/A; MAX OF 3.96 FL.OZ/A/DORMANT SEASON

Comments: POST EMERGENT WEED CONTROL (BURN DOWN) DURING MINT DORMANT PERIOD. MFG INDICATED THAT RESIDUE DATA WOULD BE REQUIRED AND SUGGESTED SULFENTRAZONE MAY BE A BETTER OPTION:06/06.

PR #: 09427 **LAB:** 09-CAR15

<u>NER - FRD</u>	<u>NCR - FRD</u> 09-WI04 Heider, Daniel J. 09-WI03 Heider, Daniel J.	<u>SOR - FRD</u>	<u>WSR - FRD</u> 09-WA*15 Harvey, John 09-WA16 Groenendale, D. 09-ID07 Meeks, Mr. Will	<u>CANADA - FRD</u>
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ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG)

CHLORANTRANILIPROLE (DUPONT)

COMMODITY (CROP GROUP)

ALL CROPS

STUDY DIRECTOR

DORSCHNER

CROP GROUP

BLANKET (00)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: DIAMONDBACK MOTH, WORM & LOOPER COMPLEX, CUTWORMS, CORN EAR WORM, BEET ARMYWORM, WHITEFLY NYMPHS, LEAFMINER, LEP. LARVAE, RICE WATER WEEVIL, ARTICHOKE PLUME MOTH, AVOCADO LACE BUG, BANANA ROOT BORER & OTHERS

Use Pattern: (PCR):

Comments: REGISTRATION PLAN TO HAVE ALL CROPS BUNDLED WITH 3 STUDIES. STUDY 10204 ON BARLEY(3), SORGHUM (3) & WHEAT(5 WITH 1 PROCESSING); STUDY A10204 ON GREEN ONION(5) & DILL(2); STUDY B10204 WITH DECLINE TRIALS ON CHERRY, LYCHEE & PAPAYA. HQ REQUESTS COVERED TURNIP GREENS (10217), ONION (10162), PEPPER (BELL & NON-BELL) (GH) (9908), LEMON (10202), STRAWBERRY (9850), RICE (10136), HERBS (10219), ARTICHOKE (10083), AVOCADO (9581), CANOLA (10208), COFFEE (10205), GRAPEFRUIT (10201), GRASSES (SEED CROP) (10250), ORANGE (10200), PERSIMMON (10536), OKRA (10537), SPICES (10538), TROPICAL FRUITS (10539) & BANANA (10232).

PR #: 10204 **LAB:** 09-FLR24

NER - FRD

NCR - FRD

SOR - FRD

WSR - FRD

CANADA - FRD

09-ND04 Ciernia, Mr. Mark
09-ND05 Lee, Curt
09-SD08 Clay, Dr. Sharon
09-ND01 Lee, Curt
09-SD07 Clay, Dr. Sharon
09-ND02 Ciernia, Mr. Mark
09-ND03 Ciernia, Mr. Mark

09-ID14 Meeks, Mr. Will
09-NM13 Craig, Maury (NMSU)
09-NM19 Craig, Maury (NMSU)
09-NM18 Craig, Maury (NMSU)

PR #: A10204 **LAB:** 09-FLR17

NER - FRD

NCR - FRD

SOR - FRD

WSR - FRD

CANADA - FRD

09-MD01 Ross, Marylee

09-NC22 Batts, Roger B.

09-CA100 Boutwell, Brent
09-CA*99 Benzen, Ms. Sharon D.
09-ID15 Meeks, Mr. Will

09-QC05 Jobin, Tristan
09-ON09 Riddle, Geoff

PR #: B10204 **LAB:** 09-FLR18

NER - FRD

NCR - FRD

SOR - FRD

WSR - FRD

CANADA - FRD

09-FL05 Crane, Dr. Jonathan H.
09-FL69 Crane, Dr. Jonathan H.

09-HI01 Kam, James
09-WA03 Groenendale, D.

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CHLORFENAPYR (BASF) Residue Data Requirements: COMPLETE E/CS Data Requirements: Reasons for Need: CHILLI THRIPS Use Pattern: (PCR): 0.32 LB.AI/A/APPLIC; 2 APPLIC, 5 DAY RETREATMENT INTERVAL, ONE DAY PHI, APPLY IN 100 GPA Comments: (GREENHOUSE) FUTURE SUBMISSION FOR BASIL (10087) & CHIVES (10088) ALSO INCLUDE HERB GROUP. MFG REQUIRES PLANT SAFETY AND PERFORMANCE DATA BEFORE REGISTRATION & MFG MUST CONFIRM WITH GH PRODUCT DISTRIBUTOR:05/08. PR #: 10087 LAB: 09-CAR13	BASIL & CHIVES (GH)	DORSCHNER	HERB SUBGROUP (19A)
NER - FRD	NCR - FRD	SOR - FRD	WSR - FRD
09-MD09 Ross, Marylee		09-TX11 Gregg, Ms. Lori	
09-MD10 Ross, Marylee		09-NC14 Batts, Roger B.	
		09-FL36 Studstill, David	
		09-TX12 Gregg, Ms. Lori	
		09-NC25 Batts, Roger B.	
		09-FL35 Studstill, David	
CHLOROTHALONIL (MANA,SYNGEN) Residue Data Requirements: COMPLETE E/CS Data Requirements: Reasons for Need: ANTHRACNOSE, BOTRYTIS LEAFMOLD, FRUITROT, CERCOSPORA LEAFSPOT Use Pattern: (PCR): FOLIAR SPRAY; 1.5 LB.AI/A; 8 APPLIC; 7 DAY INTERVALS; 0, 3 7 14 DAY PHI Comments: SUBMISSION FOR NON-BELL & BELL PEPPERS (571, 32), PERSIMMON (5388), HORSERADISH (2392), RHUBARB (5410) & GINSENG (988) ALSO INCLUDE EGGPLANT (1154), CUCURBITS (3950, 3860, 3861), LUPINE (5289), LENTIL (5422), YAM (1414), KOHLRABI (3169). LABELED WITH WEATHERSTIK FORMULATION:05/09. MFG TO SUBMIT ULTREX LABEL FOR THIS USE:05/09. PR #: A0571 LAB: 09-CAR10	PEPPER (NON-BELL)	THOMPSON	FRUITING VEGETABLE GROUP (08)
NER - FRD	NCR - FRD	SOR - FRD	WSR - FRD
			09-NM08 Craig, Maury (NMSU)
			CANADA - FRD

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CHLOROTHALONIL (MANA,SYNGEN)	GRAPEFRUIT	THOMPSON	CITRUS FRUIT GROUP (10)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: SEPTORIA SPOT			
Use Pattern: (PCR): 4-6 PINTS/A (3.6 LB); FOLIAR (FRUIT), AIR-BLAST (200-600 GAL/A); 1-2 APPLIC; 4-6 WEEK RE-TREATMENT INTERVAL; 7-DAY PHI; APPLY PRIOR TO WINTER RAINS IN 4-6 WEEK INTERVALS WITH A SECOND TRT APPLIC IN WINTER (CHLOROTHALONIL FIRST OR SECOND IN ROTATION WITH COPPER-BASED PRODUCT), FOLLOW DISEASE FORECASTS FOR SEPTORIA SPOT PROVIDED BY UC.			
Comments: MFG AWAITING REVIEW OF PENDING USES, DUE JAN 2009:08/08. FUTURE SUBMISSION FOR LYCHEE (6420), GUAVA (10100), GRAPEFRUIT (10164), LEMON (10165) & ORANGE (10163) ALSO INCLUDE LONGAN (6421).			
PR #: 10164	LAB: 09-FLR26		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
		09-FL13 Studstill, David	09-CA88 Farrar, Mr. Chuck
		09-TX05 Gregg, Ms. Lori	09-CA89 Ennes, D. (Kearney)
			THOMPSON
			<u>CANADA - FRD</u>
CHLOROTHALONIL (MANA,SYNGEN)	LEMON	THOMPSON	CITRUS FRUIT GROUP (10)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: SEPTORIA SPOT			
Use Pattern: (PCR): 4-6 PINTS/A (3.6 LB); FOLIAR (FRUIT), AIR-BLAST (200-600 GAL/A); 1-2 APPLIC; 4-6 WEEK RE-TREATMENT INTERVAL; 7-DAY PHI; APPLY PRIOR TO WINTER RAINS IN 4-6 WEEK INTERVALS WITH A SECOND TRT APPLIC IN WINTER (CHLOROTHALONIL FIRST OR SECOND IN ROTATION WITH COPPER-BASED PRODUCT), FOLLOW DISEASE FORECASTS FOR SEPTORIA SPOT PROVIDED BY UC.			
Comments: MFG AWAITING REVIEW OF PENDING USES, DUE JAN 2009:08/08. FUTURE SUBMISSION FOR LYCHEE (6420), GUAVA (10100), GRAPEFRUIT (10164), LEMON (10165) & ORANGE (10163) ALSO INCLUDE LONGAN (6421).			
PR #: 10165	LAB: 09-CAR03		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
			09-CA90 Skiles, Keri
			09-CA91 Skiles, Keri
			09-CA92 Farrar, Mr. Chuck
			09-CA93 Farrar, Mr. Chuck
			09-CA94 Farrar, Mr. Chuck
			<u>CANADA - FRD</u>

CHEMICAL (MFG)

CHLOROTHALONIL (MANA,SYNGEN)

COMMODITY (CROP GROUP)

ORANGE

STUDY DIRECTOR

THOMPSON

CROP GROUP

CITRUS FRUIT GROUP (10)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: SEPTORIA SPOT

Use Pattern: (PCR): 4-6 PINTS/A (3.6 LB); FOLIAR (FRUIT), AIR-BLAST (200-600 GAL/A); 1-2 APPLIC; 4-6 WEEK RE-TREATMENT INTERVAL; 7-DAY PHI; APPLY PRIOR TO WINTER RAINS IN 4-6 WEEK INTERVALS WITH A SECOND TRT APPLIC IN WINTER (CHLOROTHALONIL FIRST OR SECOND IN ROTATION WITH COPPER-BASED PRODUCT), FOLLOW DISEASE FORECASTS FOR SEPTORIA SPOT PROVIDED BY UC.

Comments: MFG AWAITING REVIEW OF PENDING USES, DUE JAN 2009:08/08. FUTURE SUBMISSION FOR LYCHEE (6420), GUAVA (10100), GRAPEFRUIT (10164), LEMON (10165) & ORANGE (10163) ALSO INCLUDE LONGAN (6421).

PR #: 10163

LAB: 09-FLR25

NER - FRD

NCR - FRD

SOR - FRD

WSR - FRD

CANADA - FRD

09-FL16	Studstill, David	09-CA86	Farrar, Mr. Chuck
09-FL17	Studstill, David	09-CA87	Farrar, Mr. Chuck
09-FL18	Studstill, David	09-CA85	Skiles, Keri
09-FL21	Studstill, David		
09-FL22	Studstill, David		
09-FL23	Studstill, David		
09-TX04	Gregg, Ms. Lori		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CHLOROTHALONIL (MANA,SYNGEN)	GUAVA	THOMPSON	MISCELLANEOUS COMMODITY (99)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: ANTHRACNOSE			
Use Pattern: (PCR): 1.4-2.6 LBS.AI/A; FOLIAR APPLIC; 12 APPLIC (NO MORE THAN 24 LB.AI/A/SEASON); 7-14 DAYS RETREATMENT INTERVAL; 21-DAYS PHI			
Comments: FUTURE SUBMISSION FOR LYCHEE (6420), GUAVA (10100), GRAPEFRUIT (10164), LEMON (10165) & ORANGE (10163) ALSO INCLUDE LONGAN (6421).			
PR #: 10100	LAB: 09-CAR11		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
		09-FL31 Crane, Dr. Jonathan H.	
		09-FL32 Crane, Dr. Jonathan H.	
		09-FL33 Crane, Dr. Jonathan H.	
		09-FL34 Crane, Dr. Jonathan H.	
CHLOROTHALONIL (MANA,SYNGEN)	LYCHEE	THOMPSON	MISCELLANEOUS COMMODITY (99)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: ANTHRACNOSE			
Use Pattern: (PCR): 1.4-2.6 LBS.AI/A; FOLIAR APPLIC; 12 APPLIC (NO MORE THAN 24 LB.AI/A/SEASON); 7-14 DAYS RETREATMENT INTERVAL; 21-DAYS PHI			
Comments: SOR (FL) REACTIVED:04/08. FUTURE SUBMISSION FOR LYCHEE (6420), GUAVA (10100), GRAPEFRUIT (10164), LEMON (10165) & ORANGE (10163) ALSO INCLUDE LONGAN (6421).			
PR #: 06420	LAB: 09-CAR12		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
		09-FL47 Crane, Dr. Jonathan H.	
		09-FL48 Crane, Dr. Jonathan H.	
		09-FL49 Crane, Dr. Jonathan H.	
		09-FL50 Crane, Dr. Jonathan H.	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CLETHODIM (MANA,VALENT)	APPLE	ARSENOVIC	POME GROUP (11)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u> NONE			
<u>Reasons for Need:</u> ANNUAL & PERENNIAL GRASSES			
<u>Use Pattern: (PCR):</u> 0.25 LB.AI/A; 2 POSTEMERGENCE APPLIC; 14-DAY SPRAY INTERVAL; 14-DAY PHI; 0.5 LB.AI/A/SEASON MAX			
<u>Comments:</u> ORCHARD FLOOR; FUTURE SUBMISSION FOR APPLE (6873), PEAR (6874), PLUM (6948), CHERRY (06877) ALSO INCLUDE APRICOT (06876) & NECTARINE (6878)			

PR #: 06873 **LAB:** 08-NYR08

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY20 Bellinder, Dr. Robin	09-MI26 Zandstra, Dr. Bernard H.			

CLETHODIM (MANA,VALENT)	CHERRY	ARSENOVIC	STONE FRUIT GROUP (12)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u> NONE			
<u>Reasons for Need:</u> ANNUAL GRASSES			
<u>Use Pattern: (PCR):</u> 0.25 LB.AI/A; 2 APPLIC; 14 DAY INTERVAL; 0.5 LB.AI/A/SEASON MAX.			
<u>Comments:</u> FUTURE SUBMISSION FOR APPLE (6873), PEAR (6874), PLUM (6948), CHERRY (06877) ALSO INCLUDE APRICOT (06876) & NECTARINE (6878).			

PR #: 06877 **LAB:** 09-YAR02

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY04 Bellinder, Dr. Robin	09-MI22 Zandstra, Dr. Bernard H.		09-CO02 Loiz, Meghan	09-ON03 Pogoda, Mitch
	09-MI23 Zandstra, Dr. Bernard H.		09-CA31 Skiles, Keri	09-ON04 Pogoda, Mitch
	09-MI24 Zandstra, Dr. Bernard H.		09-CA32 Skiles, Keri	
	09-MI25 Zandstra, Dr. Bernard H.		09-ID04 Meeks, Mr. Will	
	09-MI20 Zandstra, Dr. Bernard H.		09-WA22 Groenendale, D.	
	09-MI21 Zandstra, Dr. Bernard H.		09-WA*23 Harvey, John	

CHEMICAL (MFG)

CLOTHIANIDIN (VALENT)

COMMODITY (CROP GROUP)

GRAPEFRUIT

STUDY DIRECTOR

DORSCHNER

CROP GROUP

CITRUS FRUIT GROUP (10)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: CITRUS PSYLLID: ADULTS, NYMPHS & EGGS, CITRUS LEAFMINER

Use Pattern: (PCR): 0.2 LB.AIA/A (12 FLUD OZ/A) MAX; FOLIAR APPLIC, GROUND AND/OR AIR; 1 OR 2 DEPENDING ON APPLIC RATE; 1 DAY PHI; MAX OF 12 FLUID OZ OF FORMULATED PRODUCT TO BE USED PER YEAR, WITH APPLIC RATE TO BE DETERMINED FROM EITHER ONE (12 OZ) OR 2 APPLIC (6 OZ 2 TIMES)

Comments: IR-4 TO SUBMIT MFG DATA FOR ORANGE (10167) AND LEMON (10169) ALONG WITH THE IR-4 GRAPEFRUIT (10168) DATA (E-MAIL CORRESPONDENCE 12/11/08) & STRAWBERRY (10005).

PR #: 10168

LAB: 09-MIR10

NER - FRD

NCR - FRD

SOR - FRD

WSR - FRD

CANADA - FRD

09-FL72	Studstill, David	09-CA95	Farrar, Mr. Chuck
09-FL09	Studstill, David	09-CA96	Ennes, D. (Kearney)
09-FL10	Studstill, David		
09-FL11	Johnson, Mr. Robert R.		
09-FL12	Johnson, Mr. Robert R.		
09-TX03	Gregg, Ms. Lori		
09-FL71	Studstill, David		
09-FL08	Studstill, David		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) CYANTRANILIPROLE (DUPONT) **COMMODITY (CROP GROUP)** ONION (DRY BULB & GREEN) **STUDY DIRECTOR** DORSCHNER **CROP GROUP** BULB VEGETABLE GROUP (03-07AB)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: THRIPS

Use Pattern: (PCR): 0.1 LB.AI/A; MAKE 4 FOLIAR APPLIC AT 7-DAY INTERVALS IN 30-50 GPA, 7 DAY PHI

Comments: FUTURE SUBMISSION FOR CRANBERRY (10199), DRY BULB & GREEN ONION (10107), PEPPER (GH) (10122) & TOMATO (GH) (10104).

PR #: 10107 **LAB:** 09-ABC01

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>	
09-NY09	Bellinder, Dr. Robin	09-WI09	Chapman, S.	09-TX*07	McCommas, Mr.David	09-OR13	Koskela, Ms. Gina	09-ON06	Weber-Henricks, Mary
		09-OH*11	Horst, Leona	09-SC*08	Wade, Paul	09-CA*118	Benzen, Ms. Sharon D.	09-ON07	Weber-Henricks, Mary
				09-TX*28	McCommas, Mr.David	09-NM15	Craig, Maury (NMSU)	09-QC02	Trudeau, M.
						09-CA67	Boutwell, Brent	09-QC03	Trudeau, M.
						09-CA68	Farrar, Mr. Chuck	09-QC04	Trudeau, M.
						09-ID10	Meeks, Mr. Will		

CYANTRANILIPROLE (DUPONT) PEPPER (BELL & NON-BELL) (GH) DORSCHNER FRUITING VEGETABLE GROUP (08)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: THRIPS, PSYLLIDS, WHITEFLY

Use Pattern: (PCR): APPLICATION RATE NOT SPECIFIED; 4 APPLIC, 7 DAY RE-TREATMENT INTERVAL, 0-DAY PHI

Comments: IF NO FIELD USE THAN 4 TRIALS NEEDED, IF NOT DOING TOMATO, THEN NEED DECLINE STUDY:10/08. CANDADIAN PRIORITY FOR 2009. FUTURE SUBMISSION FOR CRANBERRY (10199), DRY BULB & GREEN ONION (10107), PEPPER (GH) (10122) & TOMATO (GH) (10104).

PR #: 10122 **LAB:** 09-MIR11

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>	
09-MD05	Ross, Marylee			09-NC26	Batts, Roger B.	09-CA83	Ennes, D. (Kearney)	09-BC07	Brookes, Ms. Victoria
								09-ON08	Riddle, Geoff

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>	
CYANTRANILIPROLE (DUPONT)	TOMATO (GH)	DORSCHNER	FRUITING VEGETABLE GROUP (08)	
Residue Data Requirements: COMPLETE				
E/CS Data Requirements:				
Reasons for Need: APHIDS, LEPS, PSYLLIDS, WHITEFLIES				
Use Pattern: (PCR): 0.33 LB.AI/A/APPLIC; FOLIAR & CHEMIGATION (THERMAL FOGGING IS DESIRABLE); 5 APPLIC; LESS THAN 3 DAYS PHI				
Comments: (GREENHOUSE) CANADIAN PRIORITY FOR 2009; DOING 2 GH RESIDUE TRIALS PLUS EFFICACY:06/08. MFG PROVIDED EFFICACY DATA TO IR4, ADJUVANTS NEEDED FOR GOOD THRIPS CONTROL:08/08. FUTURE SUBMISSION FOR CRANBERRY (10199), DRY BULB & GREEN ONION (10107), PEPPER (GH) (10122) & TOMATO (GH) (10104).				
PR #: 10104	LAB: 09-MIR09			
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD20 Ross, Marylee		09-NC27 Batts, Roger B.	09-CA66 Ennes, D. (Kearney)	09-BC06 Brookes, Ms. Victoria
09-MD26 Ross, Marylee				09-ON05 Riddle, Geoff

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>	
CYANTRANILIPROLE (DUPONT)	CRANBERRY	SAMOIL	BERRY & SMALL FRUIT (13-07GH)	
Residue Data Requirements: COMPLETE				
E/CS Data Requirements:				
Reasons for Need: CRANBERRY & SPRAGANOTHIS FRUITWORMS, BLACKHEADED FIREWORM, CRANBERRY BLOSSOMWORM, SPOTTED FIREWORM, GYPSY MOTH				
Use Pattern: (PCR): 0.066-0.134 AI/A; FOLIAR APPLIC; 2-3 APPLIC; 7 DAYS RE-TREATMENT INTERVAL; 14-DAY PHI; APPLY PRE-BLOOM OR POST-BLOOM ;AVOID APPLIC WHILE BEES ARE ACTIVELY FORAGING				
Comments: FUTURE SUBMISSION FOR CRANBERRY (10199), DRY BULB & GREEN ONION (10107), PEPPER (GH) (10122) & TOMATO (GH) (10104).				
PR #: 10199	LAB: 09-MIR13			
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MA02 Sylvia, M.	09-WI05 Chapman, S.		09-OR17 DeFrancesco, Mr. Joe	09-BC02 Brookes, Ms. Victoria
09-NJ08 Freiberger, Tom	09-WI06 Chapman, S.			

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CYAZOFAMID (FMC,ISK)	SPINACH	THOMPSON	LEAFY GREENS SUBGROUP (04A)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements: NEED 1 TRIAL ON DOWNY MILDEW TO ADD TO LABEL			
Reasons for Need: WHITE RUST, DOWNY MILDEW			
Use Pattern: (PCR):			
Comments: CURRENT DATA ON WHITE RUST: 10/08; MFG REQUIRES AT LEAST 4 TRIALS WITH DOWNY MILDEW FOR LABEL: 10/08; SUBMISSION FOR MUSTARD GREENS (9083), BROCCOLI (9717), CABBAGE (9082), SPINACH (9265), HOPS (9823), ALSO INCLUDED COLLARD (9084): 08/09			
PR #: P9265	LAB: NONE		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
			09-AZP02 Matheron, Dr. Michael E.
			<u>CANADA - FRD</u>

CHEMICAL (MFG)

CYAZOFAMID (FMC,ISK)

COMMODITY (CROP GROUP)

BEAN (LIMA)

STUDY DIRECTOR

CORLEY

CROP GROUP

SHELLED PEA/BEAN SUBGROUP (06BC)

Residue Data Requirements: COMPLETE

E/CS Data Requirements: ANY 3 - FOCUS ON P.CAPSICI; PYTHIUM NEEDS APPEAR TO BE MET

Reasons for Need: PYTHIUM APHANIDERMATUM, COTTONY LEAK, PHYTOPHTHORA CAPSICI

Use Pattern: (PCR): 2.75 FL OZ/A; FOLIAR SPRAYS AT 30-60 GPA; WEEKLY APPLIC; WHEN NEEDED 7-DAY PHI (MFG REQUESTS 0-DAY)

Comments: MFG MAY ASSIST IN FINAL REPORT WRITING:08/05; LOST 2007 TRIALS (LAB FREEZER FAILURE):03/09; 2009 NY PERFORMANCE TRIAL FOR P.CAPSICI:05/09; FUTURE SUBMISSION FOR LETTUCE (HEAD & LEAF) (10037), LIMA BEAN (9532) & SNAP BEAN (9094), BASIL (10118) ALSO INCLUDE LETTUCE (9279); JOINT EFFICACY WORK WITH 07262 AND 10324:12/09

PR #: 09532 **LAB:** 07-CAR16

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>
09-MD15	Ross, Marylee	09-WI20	Heider, Daniel J.	09-NC30	Batts, Roger B.	09-CA134	Farrar, Mr. Chuck	
09-MD24	Ross, Marylee			09-NC31	Batts, Roger B.	09-CA135	Ennes, D. (Kearney)	
						09-ID20	Meeks, Mr. Will	

PR #: P9532 **LAB:** NONE

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>
09-NYP03	McGrath, Dr. Margaret T.			09-VAP01	Rideout, S.L.			
				09-OKP01	Damicone, John			
				09-VAP02	Rideout, S.L.			

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
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<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CYAZOFAMID (FMC,ISK)	BASIL	BARNEY	HERB SUBGROUP (19A)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> DOWNY MILDEW			
<u>Use Pattern: (PCR):</u> 3 OZ/A; FOLIAR; 7 DAYS RE-TREATMENT INTERVAL; 7-DAY PHI; DO NOT APPLY MORE THAN 27.5 FL.OZ/A/CROP			
<u>Comments:</u> FIELD & GREENHOUSE. MFG SUPPORTS GH USE IF AT LEAST 3 PRODUCTS ARE AVAILABLE FOR ROTATION/RESISTANCE MANAGEMENT:10/08. FUTURE SUBMISSION FOR LETTUCE (HEAD & LEAF) (10037), LIMA BEAN (9532) & SNAP BEAN (9094), BASIL (10118) ALSO INCLUDE LETTUCE (9279).			

PR #: 10118 **LAB:** 09-CAR08

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD04 Ross, Marylee		09-FL29 Studstill, David 09-NC16 Batts, Roger B.	09-CA*82 Benzen, Ms. Sharon D. 09-CA81 Ennes, D. (Kearney) 09-AZ*01 Miller, Barry	

CYPRODINIL + FLUDIOXONIL (SYNGEN)	GREENS (MUSTARD)	BARNEY	LEAFY BRASSICA GREENS SUBGROUP (05B)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> ALTERNARIA LEAF BLIGHT			
<u>Use Pattern: (PCR):</u> FOLIAR SPRAY; 0.875 LBS.SWITCH 62.5 WG FORMULATION/A; 4 APPLIC, FIRST 42 DAYS; 7 DAY PHI			
<u>Comments:</u> INCLUDE PR# 7121 (CABBAGE) & 7122 (BROCCOLI). CANADA 2004 PRIORITY:03/03. REVISED SECTION F FOR 10 PPM FLUDIOXONIL SUB:06/23/03. SEE PR# 9126 FOR ADDITIONAL DATA NEEDS:11/03. NEED ONE TRIAL FROM REGION 4:08/08.			

PR #: A7622 **LAB:** 09-FLR15

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-AR12 Burgos, N. 09-AR03 Burgos, N. 09-AR04 Burgos, N. 09-AR03 Burgos, N. 09-AR04 Burgos, N. 09-AR12 Burgos, N.		

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CYPRODINIL + FLUDIOXONIL (SYNGEN)	TOMATO	BARNEY	FRUITING VEGETABLE GROUP (08)
<u>Residue Data Requirements:</u>			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> BOTRYTIS, POWDERY MILDEW, SCLEROTINIA, FUSARIUM CROWN & ROOT ROT			
<u>Use Pattern: (PCR):</u> 0.875 LB PRODUCT/A; 4 APPLIC; FOLIAR SPRAY; 1 DAY PHI			
<u>Comments:</u> (FIELD & GH) HIGH PRIORITY AT GH WORKSHOP:06/01. RECD MFG DATA FOR 2 FL-2002 TRIALS:12/03. EPA REQUESTED 2 TRIALS TO COVER <1 INCH GREENHOUSE TOMATOES:08/08. INCLUDE PR# 10493.			
<u>PR #:</u> A8124	<u>LAB:</u> 09-FLR14		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
09-MD14 Ross, Marylee		09-TX32 Gregg, Ms. Lori	09-CO05 Loiz, Meghan
09-MD25 Ross, Marylee		09-TX32 Gregg, Ms. Lori	09-CO05 Loiz, Meghan
09-MD14 Ross, Marylee			
09-MD25 Ross, Marylee			

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CYPRODINIL + FLUDIOXONIL (SYNGEN)	CUCUMBER (GH)	BARNEY	SQUASH/CUCUMBER SUBGROUP (09B)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> POWDERY MILDEW, BOTRYTIS			
<u>Use Pattern: (PCR):</u> 0.5-1.0 LB.AI/A; 3 APPLIC EVERY WEEK; 0 DAY PHI			
<u>Comments:</u> (GREENHOUSE) SEE PR# 07655 FOR FIELD USE (MFG PROJECT). CANADA DOING EFFICACY & RESIDUE STUDY:09/04. IR-4 TO SUB CANADIAN DATA:06/07 (2 TRIALS). RESIDUE ANALYSIS COMPLETE IN CANADA:09/07. FUTURE SUBMISSION FOR SPINACH (10006) & CUCUMBER (GH) (09233).			
<u>PR #:</u> 09233	<u>LAB:</u> 09-FLR14		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
			09-CO06 Loiz, Meghan
			09-CO07 Loiz, Meghan
			09-CO06 Loiz, Meghan
			09-CO07 Loiz, Meghan

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
CYPRODINIL + FLUDIOXONIL (SYNGEN)	LEMON	BARNEY	CITRUS FRUIT GROUP (10)
<p><u>Residue Data Requirements:</u></p> <p><u>E/CS Data Requirements:</u></p> <p><u>Reasons for Need:</u> ALTERNARIA</p> <p><u>Use Pattern: (PCR):</u> SWITCH IS CONDITIONALLY LABELED; USE LABEL RATE IN PROCESSING STUDY</p> <p><u>Comments:</u> SUBMISSION FOR LEMON (8297) ALSO INCLUDE LIME (6981). NEED PROCESSING STUDY FOR CYPRODINIL; FLUDIOXONIL PROCESSING STUDY COMPLETED AS PART OF POSTHARVEST WORK: 08/08.</p>			
<u>PR #:</u> A8297	<u>LAB:</u> 09-FLR13		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> 09-CA37 Mitchell, Michelle
			<u>CANADA - FRD</u>
DIFLUBENZURON (CHMTRA)	ORANGE	DORSCHNER	CITRUS FRUIT GROUP (10)
<p><u>Residue Data Requirements:</u></p> <p><u>E/CS Data Requirements:</u></p> <p><u>Reasons for Need:</u> CITRUS PSYLLID</p> <p><u>Use Pattern: (PCR):</u> ULV APPLICATION; FOGGING WITH 3-5 GPA</p> <p><u>Comments:</u> RESIDUE DATA REQUIRED FOR ULV APPLICATION <5 GPA; TRIALS ON REGULAR SIZED AND SMALL SIZED ORANGE VARIETY & GRAPEFRUIT. FUTURE SUBMISSION OF ORANGE (10156) WILL INCLUDE GRAPEFRUIT (10157) AND TANGERINE (10155). MFG SUBMITTING IR-4 DATA:09/09.</p>			
<u>PR #:</u> 10156	<u>LAB:</u> 09-PTR01		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
		09-FL64 Johnson, Mr. Robert R.	
		09-FL65 Johnson, Mr. Robert R.	
		09-FL66 Johnson, Mr. Robert R.	
			<u>CANADA - FRD</u>

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
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CHEMICAL (MFG) DIFLUBENZURON (CHMTRA) **COMMODITY (CROP GROUP)** PEACH, PLUM **STUDY DIRECTOR** BARNEY **CROP GROUP** STONE FRUIT GROUP (12)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: PLUM CURCULIO, ORIENTAL FRUIT MOTHE, PEACH TWIG BORER, CODLING MOTH, KATYDID

Use Pattern: (PCR): 0.125-0.25 LB.AI/A; FOLIAR,2 APPLIC; 21 DAY RE-TREATMENT INTERVAL; 14 DAYS PHI; ALLOW APPLICATION AFTER BLOOM IS COMPLETE

Comments: MFG HAS DATA FROM 5 PEACH & 3 PLUM TRIALS (2005), WILL CO-FUND & ANALYZE SAMPLES:06/08. FUTURE SUBMISSION FOR PEACH (8664, 9599), PLUM (10111), ALFALFA (6878), CARROT (8643) & PEANUT (9891) ALSO INCLUDE STONE FRUITS: APRICOT (10110) & NECTARINE (10112) EXCEPT CHERRIES.

PR #: 08664 **LAB:** 09-BER03

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>
09-NJ04	Freiberger, Tom	09-MI17	Wise, Dr. John C.	09-NC07	Batts, Roger B.	09-CA39	Skiles, Keri	
09-NJ05	Freiberger, Tom			09-AR05	Burgos, N.	09-CA41	Skiles, Keri	
						09-CA43	Stewart, D.	
						09-CA38	Stewart, D.	
						09-CA40	Skiles, Keri	
						09-CA42	Skiles, Keri	
						09-WA18	Groenendale, D.	

DIFLUBENZURON (CHMTRA) ALFALFA BARNEY NONGRASS ANIMAL FEEDS GROUP (18)

Residue Data Requirements: COMPLETE

E/CS Data Requirements: NONE

Reasons for Need: GRASSHOPPERS, MORMON CRICKET

Use Pattern: (PCR): 0.0325 LB.AI/A; AERIAL APPLIC: 1-5 GAL/A; GROUND APPLIC: 20-30 GAL/A; ONE APPLIC/CUTTING; 14 DAY PHI

Comments: MFG WILL ANALYZE RESIDUE SAMPLES:09/02. RULE: SEC 18 TLT TO 12/31/11. THREE YEAR STUDY:05/07. 2008 STUDIES NEEDED BOTH 1X AND 3X RATE (FORAGE, HAY & SEED) (A8678):05/07. MFG FUNDING 2008 FIELD TRIALS:10/07. FUTURE SUBMISSION FOR PEACH (8664, 9599), PLUM (10111), ALFALFA (6878), CARROT (8643) & PEANUT (9891) ALSO INCLUDE STONE FRUITS: APRICOT (10110) & NECTARINE (10112) EXCEPT CHERRIES.

PR #: A8678 **LAB:** 08-BER01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-WA28	Groenendale, D.

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
DINOTEFURAN (GOWAN,MITSUI,VALENT)	ONION (DRY BULB)	LEONARD	BULB VEGETABLE GROUP (03-07A)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements: NONE</p> <p>Reasons for Need: THRIPS TABACI, ONION THRIPS, WESTERN FLOWER THRIPS</p> <p>Use Pattern: (PCR): 0.045 - 0.134 LB.AI/A; 2-4 WEEKLY FOLIAR APPLIC AS NEEDED IN 50-60 GPA; 1 TO 7-DAY PHI</p> <p>Comments: ONION (GREEN) STUDY IN FIELD IN 2006. AUSTRALIA HAS INTEREST:11/06. FUTURE SUBMISSION FOR CRANBERRY (9832), DRY BULB ONION (8645), GREEN ONION (9550), PEACH (9548) & WATERCRESS (9514) WILL INCLUDE CHIVES (8596).</p>			
PR #: 08645	LAB: 07-MIR07		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
			09-NM02 Craig, Maury (NMSU)
DIQUAT (SYNGEN)	CANOLA	CORLEY	MISCELLANEOUS COMMODITY (99)
<p>Residue Data Requirements: 5</p> <p>E/CS Data Requirements:</p> <p>Reasons for Need: DESICCATION</p> <p>Use Pattern: (PCR): 24-30 OZ PRODUCT/A; MAKE 1 FOLIAR APPLIC BY GROUND (20 GPA) OR AIR (MINIMUM 5 GPA); ADD A NONIONIC SURFACTANT CONTAINING 75% OR GREATER ACTIVE AGENT AT 0.06-0.5% V/V; 7-DAY PHI</p> <p>Comments: MFG DOES NOT HAVE ANY RESIDUE DATA:08/08; CANADA & AUSTRALIA HAVE LABELS FOR THIS USE:10/08</p>			
PR #: 10091	LAB: 09-MIR05		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
	09-SD06 Clay, Dr. Sharon	09-NC24 Batts, Roger B.	09-WA09 Groenendale, D.
	09-ND09 Jenks, Dr. Brian		09-WA*10 Harvey, John
	09-ND10 Jenks, Dr. Brian		09-ID11 Meeks, Mr. Will
	09-SD05 Clay, Dr. Sharon		

CHEMICAL (MFG)	COMMODITY (CROP GROUP)	STUDY DIRECTOR	CROP GROUP
EMAMECTIN BENZOATE (SYNGEN)	CANTALOUPE	LEONARD	MELON SUBGROUP (09A)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: PICKLEWORM, CABBAGE LOOPERS, ARMYWORMS

Use Pattern: (PCR): 0.007-0.015 LB/A; 30-60 GPA; 7-14 DAYS AS NEEDED

Comments: FUTURE SUBMISSION FOR CUCUMBER (6987), SQUASH (8939), BASIL (7137) & CANTALOUPE (8940) WILL INCLUDE PUMPKIN (8941).

PR #: 08940 **LAB:** 09-MOR10

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD23 Ross, Marylee	09-OH*15 Horst, Leona 09-WI18 Chapman, S.	09-TX34 Gregg, Ms. Lori 09-TX*35 McCommas, Mr.David 09-SC*10 Wade, Paul	09-CA120 Farrar, Mr. Chuck 09-CA130 Boutwell, Brent 09-CA131 Stewart, D. 09-CA132 Ennes, D. (Kearney)	

EPTC (GOWAN)	WATERMELON	BARNEY	MELON SUBGROUP (09A)
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Residue Data Requirements: 10

E/CS Data Requirements: COMPLETE

Reasons for Need: YELLOW & PURPLE NUTSEDGE

Use Pattern: (PCR): 3.5 LB.A/A; APPLY PRE OR PRETRANSPLANT TO SOIL SURFACE AND APPLY MULCH IMMEDIATELY; WAIT 7 DAYS BEFORE TRANSPLANTING TO AVOID PHYTO AND YIELD REDUCTION; MUST BE APPLIED UNDER POLY OR OTHER MULCHES

Comments: MUST BE APPLIED UNDER POLY OR OTHER MULCHES; MFG DOING EFFICACY & PHYTO TRIALS: 08/07; CA (J. NUNEZ) REQUEST FOR NON-PLASTIC (MFG WILL NOT SUPPORT THIS USE): 09/07

PR #: 09991 **LAB:** 08-CAR03

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA05 Ennes, D. (Kearney)	

ATTACHMENT 2 Continued

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CHEMICAL (MFG) ESFENVALERATE (DUPONT) **COMMODITY (CROP GROUP)** CANOLA **STUDY DIRECTOR** DORSCHNER **CROP GROUP** MISCELLANEOUS COMMODITY (99)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: LEPIDOPTERANS, APHIDS, WEEVILS

Use Pattern: (PCR): 2.9-9.6 OZ ASANA XL PER ACRE; FOLIAR APPLIC; DO NOT USE AN OIL-BASED ADJUVANT

Comments: PETITION FOR STUDY 05150/9E5075/SUB:02/99 WITHDRAWN:11/08. NEW STUDY A5150 IS TO REQUEST OIL SEED CROP GROUP:11/08. ADDITIONAL TRIALS NEEDED FOR SEED ONLY (NO PROCESSING DATA REQUIRED):07/08.

PR #: A5150 **LAB:** 09-FLR19

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-SD01 Clay, Dr. Sharon			
	09-ND15 Jenks, Dr. Brian			
	09-ND16 Jenks, Dr. Brian			

ETHEPHON (BAYER,MANA) FIG CORLEY MISCELLANEOUS COMMODITY (99)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: TO REDUCE BREBA CROP

Use Pattern: (PCR): 300-500 PPM; FOLIAR ON THE PREVIOUS FALL OR VERY EARLY SPRING APPLIC; 1 APPLIC; 120-248 DAYS BEFORE HARVEST; AT 500 PPM TO REDUCE FLOWER DIFFERENTIATIONS ON BREBAS APPLIED DURING 10-20% LEAF DROP PREVIOUS YEAR; AT 300 PPM APPLIED WHEN BREBA FRUIT FIRST START TO FORM

Comments: MANA OK:09/08 (WORKSHOP).

PR #: 10115 **LAB:** 09-CAR16

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA77 Ennes, D. (Kearney)	
			09-CA78 Ennes, D. (Kearney)	
			09-CA79 Stewart, D.	
			09-CA80 Stewart, D.	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
ETHOFUMESATE (BAYER)	CARROT	ARSENOVIC	ROOT SUBGROUP (01AB)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: ANNUAL BROADLEAF WEEDS			
Use Pattern: (PCR): 1.0 - 2.0 LB.AI/A; SAME DIRECTIONS FOR USE AND LIMITATIONS AS ON CURRENT LABEL IN WA & OR			
Comments: FUTURE SUBMISSION FOR CARROT (9918) & SMALL GRAINS (9882).			
PR #: 09918	LAB: 08-NYR06		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
			09-NM01 Craig, Maury (NMSU)
<hr/>			
ETHOPROP (BAYER)	MINT	SAMOIL	MISCELLANEOUS COMMODITY (99)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: GARDEN SYMPHYLAN			
Use Pattern: (PCR): 3 LB.AI/A; MAKE ONE APPLIC OF EITHER EC OR GRANULAR FORMULATION; DO NOT APPLY THROUGH IRRIGATION SYSTEMS; 90 DAY PHI			
Comments: SEE PR# 4012 FOR EARLIER SUB FOR ETHOPROP ON MINT. 6 LB RATE, 240 DAY PHI IF SOIL MOISTURE IS LOW, IRRIGATION IMMEDIATELY AFTER APPLIC MAY INCREASE EFFICACY AND DECREASE VOLATILITY. EPA CAUTION:08/08.			
PR #: 10049	LAB: 08-CAR11		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
	09-WI07 Heider, Daniel J.		09-WA11 Groenendale, D.
	09-WI08 Heider, Daniel J.		
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**2009 IR-4 SCHEDULED STUDIES
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<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
ETOFPENPROX (WELMRK)	ALFALFA, LETTUCE (LEAF), GRASSE	DORSCHNER	MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> TO REMOVE CROPLAND AND PASTURELAND LABEL RESTICTIONS			
<u>Use Pattern: (PCR):</u> 1X AND 10X RATE; 1 APPLIC; 12-HOUR PHI			
<u>Comments:</u> PRODUCT IS REGISTERED FOR CONTROL OF ADULT MOSQUITOES; THE NEED IN THIS REQUEST IS TO REMOVE CROPLAND AND PASTURELAND RESTRICTIONS FROM THE LABEL, BY ESTABLISHING AN ALL-CROPS TOLERANCE THROUGH AERIALY-APPLIED RESIDUE TRIALS ON THREE CROPS IN REGION 3 (SNAP BEAN, LEAF LETTUCE, GRASSES) AND THREE CROPS IN REGION 10 (ALFALFA, LEAF LETTUCE, GRASSES): 07/09			

PR #: 10315 **LAB:** 09-NYR01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL70 Studstill, David	09-CA136 Stewart, D.	

ETOXAZOLE (VALENT)	PLUM	DORSCHNER	STONE FRUIT GROUP (12)
<u>Residue Data Requirements:</u>			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> TWO SPOTTED SPIDER MITE, EUROPEAN RED MITE			
<u>Use Pattern: (PCR):</u> 0.17 LB.AI/A; FOLIAR AIRBLAST APPLIC; 1 APPLIC/SEASON; 7-14 DAY PHI			
<u>Comments:</u> SUBMISSION FOR IR-4 DATA ON PEACH (9045), CUCUMBER (9208), GREENHOUSE TOMATO (9109), MINT (8816) & MFG DATA ON PLUM (9046); SUBMITTED REDUCED RISK PROPOSAL: 08/08; EPA REQUIRES A SINGLE PROCESSING (DRYING) TRIAL IN REGION 10: 03/09			

PR #: A9046 **LAB:** 09-CAR17

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA133 Stewart, D.	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) FAMOXADONE + CYMOXANIL (DUPONT) **COMMODITY (CROP GROUP)** CARROT **STUDY DIRECTOR** HOMA **CROP GROUP** ROOT SUBGROUP (01AB)

Residue Data Requirements: COMPLETE
E/CS Data Requirements: NONE
Reasons for Need: ALTERNARIA LEAF BLIGHT
Use Pattern: (PCR): 0.27 LB.AI/A; 50 GPA; EVERY 14 DAYS; 7 DAY PHI
Comments:

PR #: 08875 **LAB:** 09-TIR07

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-OH*12 Horst, Leona	09-TX*31 McCommas, Mr.David	09-WA*29 Harvey, John	
		09-SC*09 Wade, Paul	09-CA121 Boutwell, Brent	
		09-GA*13 Fraelich, Ben	09-CA*122 Benzen, Ms. Sharon D.	
			09-CA*123 Benzen, Ms. Sharon D.	
			09-CA*124 Benzen, Ms. Sharon D.	

FENPROPATHRIN (VALENT) SWEET POTATO SAMOIL TUBEROUS/CORM SUBGROUP (01CD)

Residue Data Requirements: COMPLETE
E/CS Data Requirements:
Reasons for Need: LEP. LARVAE, BEETLES, MITES
Use Pattern: (PCR): 0.2 LBS; 25 TO 120 GPA; 7 DAY PHI; APPLY EVERY 7 DAYS AS NEEDED
Comments: EPA CAUTION:08/08. FUTURE SUBMISSION FOR MUSTARD GREENS (09266) & SWEET POTATO (7946) INCLUDES COLLARDS.

PR #: 07946 **LAB:** 09-TIR06

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD21 Ross, Marylee		09-NC28 Batts, Roger B.	09-CA119 Skiles, Keri	
09-MD22 Ross, Marylee		09-NC29 Batts, Roger B.		
		09-AR11 Burgos, N.		
		09-FL45 Studstill, David		
		09-TX*29 McCommas, Mr.David		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG)

FENPROPATHRIN (VALENT)

COMMODITY (CROP GROUP)

GREENS (MUSTARD)

STUDY DIRECTOR

SAMOIL

CROP GROUP

LEAFY BRASSICA GREENS SUBGROUP (05B)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: HARLEQUIN BUG, GREEN PEACH APHID

Use Pattern: (PCR): NONE GIVEN

Comments: EPA CAUTION:08/08. ORIGINAL REQUEST FOR COLLARD; FUTURE SUBMISSION FOR MUSTARD GREENS (09266) & SWEET POTATO (7946) INCLUDES COLLARDS.

PR #: 09266 **LAB:** 09-TIR01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-OH*03 Horst, Leona	09-TX*20 McCommas, Mr.David	09-CA*49 Benzen, Ms. Sharon D.	
		09-GA*04 Fraelich, Ben	09-CA*50 Benzen, Ms. Sharon D.	
		09-SC*04 Wade, Paul		
		09-GA*05 Fraelich, Ben		
		09-AR06 Burgos, N.		

FENPROPATHRIN (VALENT)

BARLEY

SAMOIL

CEREAL & GRAIN GROUP (15-16)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: THRIPS, CEREAL LEAF BEETLE, APHIDS

Use Pattern: (PCR): FOLIAR; 0.2 LB.AI/A; 1 APPLIC IN PRE-BOOT STAGE

Comments: EPA REQUIRES A SINGLE FIELD TRIAL WITH PROCESSING:08/08. EXPEDITE:10/08.

PR #: A7667 **LAB:** 09-TIR02

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA35 Stewart, D.	

CHEMICAL (MFG)

FENPYROXIMATE (NAI)

COMMODITY (CROP GROUP)

POTATO

STUDY DIRECTOR

LEONARD

CROP GROUP

TUBEROUS/CORM SUBGROUP (01CD)

Residue Data Requirements: 3

E/CS Data Requirements:

Reasons for Need: POTATO PSYLLID

Use Pattern: (PCR): 32 OZ.PRODUCT/A; FOLIAR APPLIC; 7 DAY RE-TREATMENT INTERVAL; 7-DAY PHI

Comments: FUTURE SUBMISSION FOR SNAP BEAN (9942), CUCUMBER (9032), AVOCADO (10007), POTATO (10173) ALSO INCLUDE MANGO (9217).

PR #: 10173

LAB: 09-MIR02

NER - FRD

09-NY10 Bellinder, Dr. Robin
09-NY11 Jordan, Mr. Grant

NCR - FRD

09-WI16 Chapman, S.
09-WI12 Chapman, S.
09-OH*09 Horst, Leona
09-MI11 Zandstra, Dr. Bernard H.

SOR - FRD

09-NC18 Batts, Roger B.
09-FL07 Studstill, David

WSR - FRD

09-CO11 Loiz, Meghan
09-CA97 Boutwell, Brent
09-WA05 Groenendale, D.
09-WA06 Groenendale, D.
09-WA*07 Harvey, John
09-WA*08 Harvey, John
09-ID12 Meeks, Mr. Will
09-ID13 Meeks, Mr. Will
09-NM17 Craig, Maury (NMSU)

CANADA - FRD

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
FENPYROXIMATE (NAI)	CUCUMBER	LEONARD	SQUASH/CUCUMBER SUBGROUP (09B)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u> NONE			
<u>Reasons for Need:</u> MITES			
<u>Use Pattern: (PCR):</u> 0.4 LB.AI/A; 2 FOLIAR APPLIC; 0 DAY PHI			
<u>Comments:</u> (FIELD) SEE PR# 9735 FOR GREENHOUSE USE AT 1-3 DAY PHI & SEE PR# 10109 FOR GREENHOUSE USE AT 7 DAY PHI. FUTURE SUBMISSION FOR SNAP BEAN (9942), CUCUMBER (9032), AVOCADO (10007), POTATO (10173) ALSO INCLUDE MANGO (9217).			

PR #: 09032 **LAB:** 09-MIR01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-OH*01 Horst, Leona	09-TX*21 McCommas, Mr.David	09-CA44 Boutwell, Brent	
	09-OH*02 Horst, Leona	09-SC*05 Wade, Paul	09-AZ*04 Miller, Barry	
		09-SC*06 Wade, Paul		
		09-GA*02 Fraelich, Ben		
		09-GA*03 Fraelich, Ben		
		09-NC08 Batts, Roger B.		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
FLONICAMID (FMC,ISK)	ALFALFA (SEED CROP)	SAMOIL	NONGRASS ANIMAL FEEDS GROUP (18)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> LYGUS BUGS, APHIDS			
<u>Use Pattern: (PCR):</u> 2.8 OZ/A; APPLY BY AIR OR GROUND EQUIPMENT WHEN INSECT PRESSURE IS OBSERVED; USE SUFFICIENT GPA FOR ADEQUATE COVERAGE; MAX 2 APPLIC PER CROP; NO PHI SPECIFIED			
<u>Comments:</u> 24(C) IN PNW:09/07. OR REQUESTED TO INCLUDE OTHER FORAGE SEED CROPS, SPECIFICALLY RED CLOVER (SEED CROP). FUTURE SUBMISSION FOR ALFALFA (9943), CANOLA (9783), CUCUMBER (8551) & STRAWBERRY (9604).			

PR #: 09943 **LAB:** 09-WUR02

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA64 Boutwell, Brent	
			09-WA12 Groenendale, D.	
			09-ID09 Meeks, Mr. Will	
			09-OR18 Koskela, Ms. Gina	
			09-OR19 Koskela, Ms. Gina	
			09-CA65 Boutwell, Brent	

FLUDIOXONIL (SYNGEN)	CARAMBOLA	THOMPSON	MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u> COMPLETE			
<u>Reasons for Need:</u> DITHIORELLA FUNGUS STEM END ROT			
<u>Use Pattern: (PCR):</u> 16-33 OZ.PRODUCT/100 GAL FOR POSTHARVEST CONTROL; MIX WITH CLEAN WATER; DIP FRUIT FOR 1-2 MINUTES			
<u>Comments:</u> (POSTHARVEST) WILL BE COVERED BY GUAVA (NO RESIDUE WORK NEEDED); EFFICACY NEEDED ON ANY TROPICAL CROPS; AUSTRALIA DOING EFFICACY WORK:11/07. FUTURE SUBMISSION FOR GINSENG (9349) INCLUDE CARAMBOLA (9912), BLUEBERRY (10079), SUBGROUP 03-07A (10522), SUBGROUP 03-07B (10523), SUBGROUP 13-07A (10524), SUBGROUP 13-07B (10525), SUBGROUP 13-07F (10526), SUBGROUP 13-07G (10527) & TROPICAL FRUITS: SUGAR APPLE (10517), LYCHEE (10518), PAPAYA (10519), AVOCADO (10520), GUAVA (10521).			

PR #: P9912 **LAB:** NONE

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FLP05 Ploetz, Dr. Randy		
		09-FLP06 Ploetz, Dr. Randy		

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
FLUDIOXONIL (SYNGEN)	PINEAPPLE (PH)	THOMPSON	MISCELLANEOUS COMMODITY (99)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: SURFACE MOLDS: PENICILLIUM SP & CLADOSPORIUM SP			
Use Pattern: (PCR): 0.25-0.50 LB.AI/100 GAL; POSTHARVEST FRUIT DIP OR SPRAY; 1 APPLIC; 0-DAY PHI; DIP: WP=8-16OZ/100 GAL; SC=16-32 FL.OZ/100 GAL; MIX IN AN APPROPRIATE WATER, WAX/EMULSION, OR AQUEOUS DILUTION OF WAX/OIL EMULSION. DIP FOR 30 SECONDS & ALLOW TO DRAIN. HIGH VOLUME APPLIC: SAME RATE OF EITHER FORMULATION BUT IN 25-100 GAL; MIX IN AN APPROPRIATE WATER, WAX/EMULSION, OR AQUEOUS DILUTION OF WAX/OIL EMULSION; USE T-JET FLOODERS OR SIMILAR APPLIC SYSTEM; ONLY 1 POSTHARVEST APPLIC TO THE FRUIT			
Comments:			
PR #: 10203	LAB: 09-HIR01		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
			09-HI02 Coughlin, Julie
			09-HI03 Coughlin, Julie
			09-HI04 Coughlin, Julie
			09-HI05 Coughlin, Julie
			<u>CANADA - FRD</u>

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
FLUMIOXAZIN (VALENT)	BROCCOLI	ARSENOVIC	HEAD/STEM BRASSICA SUBGROUP (05A)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: PURLSAND, PIGWEED, GLYPHOSATE-RESISTANT PALMER AMARANTH

Use Pattern: (PCR): UP TO 0.128 (4 OZ.PRODUCT/A); ROW MIDDLE TREATMENT PRIOR TO TRANSPLANTING CROP APPLIC; 1 APPLIC

Comments: FUTURE SUBMISSION FOR ARTICHOKE (9815), BROCCOLI (10224), OLIVE (8670), POMEGRANATE (8671) & BLACKBERRY (10249) FOR 7-DAY PHI REQUEST ALSO INCLUDE RASPBERRY (10229) & BLACKBERRY FOR PRE-EMERGENCE, OVER THE TOP & POST DIRECTED TRT (9700).

PR #: 10224 **LAB:** 09-YAR04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-TX02 Gregg, Ms. Lori	09-CA108 Farrar, Mr. Chuck	09-ON10 White, Peter
			09-NM14 Craig, Maury (NMSU)	09-ON11 White, Peter
			09-CA109 Boutwell, Brent	09-QC06 Jobin, Tristan
			09-CA*110 Benzen, Ms. Sharon D.	09-QC07 Jobin, Tristan
			09-OR07 Koskela, Ms. Gina	

FLUMIOXAZIN (VALENT)	CANE BERRY (BLACKBERRY)	ARSENOVIC	BERRY & SMALL FRUIT (13-07A)
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Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: BROADLEAF WEEDS, ANNUAL GRASSES

Use Pattern: (PCR): UP TO 12 OZ/A OF CHATEAU; POST DIRECTED APPLICATIONS; MAX 12 OZ/A IN A 12-MONTH PERIOD; 60-DAY RE-TREATMENT INTERVAL; 7-DAY PHI; POST DIRECTED ON ESTABLISHED PLANTS (>6 MONTHS); NOT FOR USE ON NEW TRANSPLANTS

Comments: FUTURE SUBMISSION FOR ARTICHOKE (9815), BROCCOLI (10224), OLIVE (8670), POMEGRANATE (8671) & BLACKBERRY (10249) FOR 7-DAY PHI REQUEST; ALSO INCLUDE RASPBERRY (10229) & BLACKBERRY FOR PRE-EMERGENCE, OVER THE TOP & POST DIRECTED TRT (9700)

PR #: 10249 **LAB:** 09-YAR03

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-ME03 Yarborough, Dr. Dave	09-MI01 Zandstra, Dr. Bernard H.		09-CA116 Skiles, Keri	09-QC09 Jobin, Tristan
09-NJ10 Freiburger, Tom			09-OR01 DeFrancesco, Mr. Joe	
			09-OR02 DeFrancesco, Mr. Joe	
			09-OR03 DeFrancesco, Mr. Joe	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
GLOBAL RESIDUE STUDY (SYNGEN) Residue Data Requirements: SEE PROTOCOL, 2 US TRIALS E/CS Data Requirements: Reasons for Need: TO TEST THE INFLUENCE OF VARIOUS GEOGRAPHIC LOCATIONS ON THE ULTIMATE PESTICIDE RESIDUES Use Pattern: (PCR): BOTH REVUS TOP & ENDIGO WILL BE APPLIED AS A SINGLE TANK MIX Comments: GLOBAL STUDY TO STANDARDIZE APPLICATION WITH THE USE OF REVUS TOP 500 SC (250 + 250 G AI/LITER FORMULATION OF MANDIPROPAMID AND DIFENOCONAZOLE) AND ENDIGO 1.18 SC (FORMULATION OF THIAMETHOXAM 141 G AI/L PLUS LAMBDA-CYHALOTHRIN 106 G AI/L)	TOMATO	BRAVERMAN	FRUITING VEGETABLE GROUP (08)
PR #: 10273 LAB: 09-MD			
NER - FRD G09-US11 Ross, Marylee	NCR - FRD	SOR - FRD	WSR - FRD G09-US12 Farrar, Mr. Chuck
			CANADA - FRD G09-CD7 Riddle, Geoff G09-CD8 Bedford, Karen
HALOSULFURON (GOWAN) Residue Data Requirements: COMPLETE E/CS Data Requirements: Reasons for Need: NUTSEDGE, BROADLEAF WEEDS Use Pattern: (PCR): 0.5-1.33 OZ/A; DIRECT SPRAY TO BASE OF GRAPEVINES; APPLY TO ACTIVELY GROWING YELLOW NUTSEDGE THAT IS 4-6 INCHES HIGH; ALWAYS INCLUDE A NON-IONIC SURFACTANT. Comments: MFG ONLY SUPPORTS EAST OF ROCKIES, CONCORD GRAPES ONLY:09/07. REQUIRES ADDITIONAL 2009 TRIALS FOR REGIONAL LABEL (1-2 TIRALS):06/08. MFG EVALUATION FOR WINE GRAPES ON GOING:09/08. FUTURE SUBMISSION FOR ARTICHOKE (9930), BLACKBERRY (9793), GRAPE (7768) & PEAR (9722).	GRAPE	LEONARD	BERRY & SMALL FRUIT (13-07F)
PR #: 07768 LAB: 08-TIR06			
NER - FRD 09-NJ02 Freiberger, Tom	NCR - FRD	SOR - FRD	WSR - FRD 09-OR27 Koskela, Ms. Gina
			CANADA - FRD

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) IMAZOSULFURON (VALENT) **COMMODITY (CROP GROUP)** CANTALOUPE **STUDY DIRECTOR** LEONARD **CROP GROUP** MELON SUBGROUP (09A)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: WEEDS, NUTSEDGE

Use Pattern: (PCR): 0.1-0.3 LB; APPLY OVER THE TOP OF CROP AND WEEDS POSTEMERGENCE, WITH SURFACTANT

Comments: MFG SUPPORTS ROW MIDDLES ONLY:07/07. ORIGINAL PCR FOR WATERMELON:02/08. FUTURE SUBMISSION FOR CANTALOUPE (9819) & POTATO (9645) WILL INCLUDE WATERMELON.

PR #: 09819 **LAB:** 08-MIR11

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA62 Boutwell, Brent	
			09-NM11 Craig, Maury (NMSU)	
			09-AZ*03 Miller, Barry	

INDOXACARB (DUPONT) GRASSES (SEED) CORLEY GRASS FORAGE, FODDER & HAY GROUP (17)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: FALL ARMYWORM, CUTWORMS, LEP. INSECTS

Use Pattern: (PCR): 0.065 - 0.09 LB.AI/A; 50 GPA; FOLIAR SPRAY

Comments: EPA CAUTION:08/08. GROWN FOR SEED ONLY IN PNW:09/08. SOR DROP (WORKSHOP):09/08. FUTURE SUBMISSION FOR GRASSES (SEED) (9521), SUBGROUP 13-07F (10339) & SUBGROUP 13-07H (10340).

PR #: 09521 **LAB:** 09-MIR06

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-OR21 Koskela, Ms. Gina	
			09-OR22 Koskela, Ms. Gina	
			09-OR23 Koskela, Ms. Gina	
			09-WA13 Groenendale, D.	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
KASUGAMYCIN (ARYSTA)	TOMATO (GH & FIELD)	THOMPSON	FRUITING VEGETABLE GROUP (08)
<u>Residue Data Requirements:</u>			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> XANTHOMONAS LEAF SPOT, BACTERIAL CANKER (CALVIBACTER)			
<u>Use Pattern: (PCR):</u> 64 FLD.OZ/A (100 PPM); 50 GALLONS/A; 3 TO 5 WEEKLY APPLIC; 7-DAY PHI			
<u>Comments:</u> MFG COMPLETING ALL EFATE DATA REQUIREMENTS FOR EPA: 09/06; POTENTIAL FOR SECTION 18: 07/08; MFG FUTURE SUBMISSION TO INCLUDE IR-4 DATA FOR TOMATO (GH & FIELD) (9797, 9784), APPLE (9773), PEAR (9619), WALNUT (9772) & PEPPER (GH & FIELD) (9802): 01/10. STABILITY STUDY IN FROZEN TOMATO MATRICES INITIATED 12/3/09 (A9797)			

PR #: 09797 **LAB:** 07-FLR05

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL40 Studstill, David		

KASUGAMYCIN (ARYSTA)	CHERRY	THOMPSON	STONE FRUIT GROUP (12)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> BACTERIAL CANKER			
<u>Use Pattern: (PCR):</u> 37.85 GRAMS (2 QTS PRODUCT)/100 GAL WATER; FOLIAR APPLIC; 3 TO 5 APPLIC; APPROX. EVERY 2 WEEK RE-TREATMENT INTERVAL; 30-DAY PHI; THOROUGH COVERAGE WITH AIRBLAST SPRAYER			
<u>Comments:</u> CANADA COMPLETED TRIALS IN 2007: A DECLINE STUDY, REGION 5-3 (SOUR) TRIALS & REGION 11-2 (SWEET) TRIALS:11/08. FUTURE SUBMISSION FOR TOMATO (GH & FIELD) (9797, 9784), APPLE (9773), CHERRY (10230), PEAR (9619) & PEPPER (GH & FIELD) (9802).			

PR #: 10230 **LAB:** 09-WUR04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY18 Palmer, Mr. W.H.	09-MI03 Wise, Dr. John C.		09-CA111 Ennes, D. (Kearney)	
	09-MI06 Wise, Dr. John C.		09-CA112 Ennes, D. (Kearney)	
	09-MI04 Wise, Dr. John C.		09-CO13 Loiz, Meghan	
	09-MI05 Wise, Dr. John C.			

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
LAMBDA-CYHALOTHRIN (MANA,SYNGEN)	OKRA	CORLEY	FRUITING VEGETABLE GROUP (08)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> STINK BUGS			
<u>Use Pattern: (PCR):</u> 0.02-0.03 LB; 30-50 GPA; FOLIAR SPRAY (RESIDUE TRAILS NEED TO MAKE 3 APPLIC AT 0.03 LB.AI/A ON 7 DAY INTERVAL); 1 DAY PHI (RESIDUE TRIALS NEED SAMPLES TAKEN AT 1 AND 3 DAY PHI)			
<u>Comments:</u> NOTE: ALTHOUGH THERE IS A FRUITING VEGETABLE TOLERANCE OF 0.2PPM, THE PHI FOR FRUITING VEG IS 5 DAYS. OKRA NEEDS A 1 OR 3 DAY PHI:05/07. IR-4 TO SUBMIT FOR OKRA TOLERANCE BASED ON FRUITING VEGETABLE DATA:05/08. FUTURE SUBMISSION FOR MUSTARD GREENS (9926) & OKRA (9852) ALSO INCLUDE BROCCOLI RAAB (10255).			

PR #: 09852 **LAB:** 09-FLR11

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-TX16 Gregg, Ms. Lori		
		09-NC13 Batts, Roger B.		
		09-GA*10 Fraelich, Ben		
		09-TX*13 McCommas, Mr.David		
		09-FL39 Studstill, David		
		09-AR08 Burgos, N.		

LINURON (DUPONT)	BASIL	CORLEY	HERB SUBGROUP (19A)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u> CROP SAFETY			
<u>Reasons for Need:</u> ANNUAL WEEDS			
<u>Use Pattern: (PCR):</u> 0.25-0.5 LB/A; SOIL APPLIC; 1 APPLIC; 60-DAY PHI; APPLY TO SOIL AFTER SEEDING			
<u>Comments:</u> MAY REQUIRE INDEMINIFICATION LANGUAGE ON LABEL: 10/08			

PR #: 10221 **LAB:** 09-BER02

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY17 Bellinder, Dr. Robin	09-MI07 Hausbeck, Dr. Mary K.	09-FL02 Studstill, David	09-CA*107 Benzen, Ms. Sharon D.	
09-NY21 Bellinder, Dr. Robin			09-CA33 Boutwell, Brent	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>		<u>COMMODITY (CROP GROUP)</u>		<u>STUDY DIRECTOR</u>		<u>CROP GROUP</u>			
MANDIPROPAMID (SYNGEN)		BASIL (FIELD & GH)		CORLEY		HERB SUBGROUP (19A)			
<u>Residue Data Requirements:</u>	COMPLETE								
<u>E/CS Data Requirements:</u>									
<u>Reasons for Need:</u>	DOWNY MILDEW								
<u>Use Pattern: (PCR):</u>	8 OZ/A; FOLIAR; 7 DAYS RE-TREATMENT INTERVAL; 7-DAY PHI; 4 APPLIC IN ONE CROP CYCLE; 32 FL.OZ/A/CROP								
<u>Comments:</u>	(FIELD & GREENHOUSE) FUTURE SUBMISSION FOR BASIL (FIELD & GH) (10124) & GINSENG (10061).								
<u>PR #:</u>	10124	<u>LAB:</u>	09-MIR03						
<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>	
09-MD06	Ross, Marylee	09-WI10	Heider, Daniel J.	09-FL27 09-NC17	Studstill, David Batts, Roger B.	09-CA*84	Benzen, Ms. Sharon D.	09-BC01	Brookes, Ms. Victoria

MEFENOXAM + COPPER (SYNGEN)		TURNIP GREENS		THOMPSON		ROOT SUBGROUP (01AB)		
<u>Residue Data Requirements:</u>	COMPLETE							
<u>E/CS Data Requirements:</u>	CROP SAFETY DATA NEEDED FROM MIDWEST AND SOUTHEAST							
<u>Reasons for Need:</u>	DOWNY MILDEW							
<u>Use Pattern: (PCR):</u>	1-2 OZ AI/A; FOLIAR SPRAY; 2 APPLICATIONS AT A 14-DAY INTERVAL							
<u>Comments:</u>	TOL ON MUSTARD GREENS WILL ALLOW THIS REQUEST IN THE NEXT MEFENOXAM SUBMISSION:09/04; MFG SUBMITTED FOLLOWING IR-4 REQUEST:12/05; NEED CROP SAFETY DATA FROM CENTRAL US(OH) AND SOUTHEAST:05/09							
<u>PR #:</u>	P9387	<u>LAB:</u>	NONE					
<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>
				09-SC01	Keinath, Dr. Anthony P.			

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) METALDEHYDE (AMVAC,LONZA) **COMMODITY (CROP GROUP)** CLOVER (SEED CROP) **STUDY DIRECTOR** SAMOIL **CROP GROUP** NONGRASS ANIMAL FEEDS GROUP (18)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: SLUGS

Use Pattern: (PCR): 0.8 LB.AI/A; SOIL APPLIC; 2 APPLIC; 21 DAYS RE-TREATMENT INTERVAL; 180-DAY PHI; BROADCAST TO THE SOIL AFTER PLANTING, RE-APPLY, IF NECESSARY, 21 DAYS LATER; ONLY IN NEWLY ESTABLISHED FIELDS, PLANTED IN EARLY FALL

Comments: GROWN FOR SEED (FEED & GRAZING). EPA CAUTION:08/08. STUDY FOR CLOVER SEED PRODUCTION IN THE NW ONLY:10/08.

PR #: 10105 **LAB:** 09-FLR07

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-OR16 Koskela, Ms. Gina	
			09-WA30 Groenendale, D.	
			09-OR14 Koskela, Ms. Gina	
			09-OR15 Koskela, Ms. Gina	

METHOXYFENOZIDE (DOWAGR) SORGHUM SAMOIL CEREAL & GRAIN GROUP (15-16)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: SUGARCANE BORER, SOUTHWESTERN CORN BORER, FALL ARMYWORM, BEET ARMYWORM

Use Pattern: (PCR): 0.06-0.09 LB.AI/A OF INTREPID 2F (4-8 FL.OZ.PROD/A); MAKE FOLIAR APPLIC AT 10-14 DAY INTERVALS STARTING AT FIRST SIGN OF EGG HATCH OR WHEN LOCALLY DEFINED THRESHOLDS ARE REACHED; APPLY NO MORE THAN 36 FL.OZ.PROD/A/SEASON; 28-DAY PHI

Comments: SECTION 18 EXEMPTION IN LA:07/08. TIME-LIMITED TOLERANCE UNTIL 12/31/12. FUTURE SUBMISSION FOR BASIL (07241) & SORGHUM (7525).

PR #: 07525 **LAB:** 09-CAR18

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-SD02 Clay, Dr. Sharon	09-NC05 Batts, Roger B.	09-NM06 Craig, Maury (NMSU)	
	09-ND11 Ciernia, Mr. Mark	09-AR02 Burgos, N.	09-NM20 Craig, Maury (NMSU)	
	09-ND12 Ciernia, Mr. Mark	09-TX23 Gregg, Ms. Lori		
	09-ND13 Ciernia, Mr. Mark	09-TX24 Gregg, Ms. Lori		
	09-NE06 Spontanski, Jess J.	09-TX25 Gregg, Ms. Lori		
		09-TX26 Gregg, Ms. Lori		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
METHOXYFENOZIDE (DOWAGR)	BASIL	SWITEK	HERB SUBGROUP (19A)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements: NONE</p> <p>Reasons for Need: LEP. LARVAE</p> <p>Use Pattern: (PCR): FOLIAR; 0.25 LB.AI/A; 4 APPLIC; 10-14 DAY INTERVAL; 7 DAY PHI</p> <p>Comments: MFG SUPPORTS 1 DAY PHI:09/08. FUTURE SUBMISSION FOR BASIL (07241) & SORGHUM (7525).</p>			
PR #: 07241	LAB: 09-FLR22		
NER - FRD	NCR - FRD	SOR - FRD	WSR - FRD
	09-WI02 Chapman, S.	09-NC04 Batts, Roger B. 09-FL46 Studstill, David	09-NM05 Craig, Maury (NMSU)
			CANADA - FRD
			09-BC05 Brookes, Ms. Victoria
NAPROPAMIDE (UPI)	BASIL	ARSENOVIC	HERB SUBGROUP (19A)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements: ADDITIONAL CROP SAFETY DATA TO ADD CROP TO LABEL</p> <p>Reasons for Need: ANNUAL GRASSES & BROADLEAF WEEDS</p> <p>Use Pattern: (PCR): 1.0-2.0 LB AI/A, PREEMERGENCE</p> <p>Comments: SLN CA(1570); NAT TOL 0.1 PPM; SLN NC:5/89; 24(C)NJ 910002; LABEL EXPANSION FOR FL & NY SUBMITTED:8/97; MFG REQUIRES CROP SAFETY DATA:08/06</p>			
PR #: P3439	LAB: NONE		
NER - FRD	NCR - FRD	SOR - FRD	WSR - FRD
09-NYP01 Bellinder, Dr. Robin	09-MIP02 Zandstra, Dr. Bernard H.	09-NCP02 Batts, Roger B. 09-FLP03 Stall, Dr. William M.	
			CANADA - FRD

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
NICOSULFURON + RIMSULFURON (DUPONT)	SORGHUM (GRAIN)	LEONARD	CEREAL & GRAIN GROUP (15-16)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> GRASSES, BROADLEAF WEEDS			
<u>Use Pattern: (PCR):</u> 0.375 OZ/A OF EACH AI; USE ONLY ON ALS RESISTANT SORGHUM THAT IS UP TO 20 INCHES TOALL WITH UPTO AND INCLUDING 6 LEAF-COLLARS; INCLUDE A CROP OIL CONCENTRANTE OR NON-IONIC SURFACTANT (PETROLEUM CROP OIL CONCENTRATE AT 1%, MODIFIED SEED OIL AT 0.15% OR NON-IONIC SURFACTANT AT 0.25%); IN ADDITION, AN AMMONIUM NITROGEN FERTILIZER MUST BE USED AT 2 QTS/A UAN OR 2 LBS/A AMS; IN CROP POSTEMERGENCE-NO SPECIAL DIRECTIONS REQUIRED; FOR PREPLANT BURN DOWN APPLY WITH NON SELECTIVE HERBICIDES; 45-DAY PHI			
<u>Comments:</u> FOR USE ON ALS-RESISTANT SORGHUM SEEDS. POSSIBLE FUNDING SUPPORT FROM MFG AND KANSAS GRAIN SORGHUM COMMISSION:10/07.			
<u>PR #:</u> 08604	<u>LAB:</u> 09-JRF04		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
	09-KS01 Nord, Cathy 09-NE01 Spontanski, Jess J.	09-TX22 Gregg, Ms. Lori	09-NM07 Craig, Maury (NMSU)
			<u>CANADA - FRD</u>

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
NOVALURON (CHMTRA,MANA)	CARROT	SAMOIL	ROOT SUBGROUP (01AB)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> CARROT WEEVIL, ROOT WEEVIL, WHITE GRUB, WIREWORM			
<u>Use Pattern: (PCR):</u> 0.10 LB.AI/A; 50 GPA; SOIL DIRECTED; 7 DAYS PHI			
<u>Comments:</u> CANADIAN RESIDUE STUDY COMPLETED IN 2004:06/08. FUTURE SUBMISSION FOR AVOCADO (9246), LIMA BEAN (9780), CARROT (9522) & CUCUMBER (GH) (10237).			
<u>PR #:</u> 09522	<u>LAB:</u> 09-FLR05		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
	09-OH*05 Horst, Leona	09-GA*07 Fraelich, Ben 09-TX*17 McCommas, Mr.David	09-WA*14 Harvey, John 09-CA*54 Benzen, Ms. Sharon D. 09-CA*55 Benzen, Ms. Sharon D. 09-CA56 Boutwell, Brent 09-CA57 Farrar, Mr. Chuck
			<u>CANADA - FRD</u>

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
NOVALURON (CHMTRA,MANA)	BEAN (LIMA)	SAMOIL	SHELLED PEA/BEAN SUBGROUP (06BC)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> PLANT BUGS (WESTERN TARNISHED PLANT BUG), LYGUS HESPERUS, LEP. LARVAE, WHITEFLIES			
<u>Use Pattern: (PCR):</u> 14 OZ/A; REPEAT AT 14 DAYS INTERVALS; 3 APPLIC/SEASON; MFG REQUESTS 12 OZ/A (01/07)			
<u>Comments:</u> FUTURE SUBMISSION FOR AVOCADO (9246), LIMA BEAN (9780), CARROT (9522) & CUCUMBER (GH) (10237).			

PR #: 09780 **LAB:** 09-FLR06

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD11 Ross, Marylee	09-OH*06 Horst, Leona	09-NC12 Batts, Roger B.	09-CA58 Ennes, D. (Kearney)	
09-MD12 Ross, Marylee			09-ID08 Meeks, Mr. Will	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
NOVALURON (CHMTRA,MANA)	CUCUMBER (GH)	SAMOIL	SQUASH/CUCUMBER SUBGROUP (09B)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> SUPPRESSION OF WHITEFLIES, THRIPS, LEPS			
<u>Use Pattern: (PCR):</u> 0.04-0.08 LB.AI/A; 50 GPA; APPLIC EVERY OTHER WEEK; FOLIAR APPLIC; 0-1 DAY PHI			
<u>Comments:</u> (GREENHOUSE) SEE PR# 08988 FOR FIELD USE. FUTURE SUBMISSION FOR AVOCADO (9246), LIMA BEAN (9780), CARROT (9522) & CUCUMBER (GH) (10237).			

PR #: 10237 **LAB:** 09-FLR08

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-TX01 Gregg, Ms. Lori	09-CO14 Loiz, Meghan	09-ON12 Weber-Henricks, Mary
				09-BC03 Brookes, Ms. Victoria

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
NOVALURON (CHMTRA,MANA)	AVOCADO	SAMOIL	MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> LEP. LARVAE			
<u>Use Pattern: (PCR):</u> 1.67 LB/A; APPLY EVERY 14 DAYS AS NEEDED; 7 DAYS PHI			
<u>Comments:</u> FOR IMPORT TOLERANCE IN CANADA, USE IR-4 DATA SUBMISSION:06/09. FUTURE SUBMISSION FOR AVOCADO (9246), LIMA BEAN (9780), CARROT (9522) & CUCUMBER (GH) (10237).			

PR #: 09246 **LAB:** 09-FLR04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL43 Crane, Dr. Jonathan H.	09-CA48 Farrar, Mr. Chuck	
		09-FL44 Crane, Dr. Jonathan H.	09-CA45 Ennes, D. (Kearney)	
			09-CA46 Farrar, Mr. Chuck	
			09-CA47 Farrar, Mr. Chuck	

OXYFLUORFEN (DOWAGR,MANA)	CARROT	ROOT SUBGROUP (01AB)
<u>Residue Data Requirements:</u> 3 5 6 10-4 11 (DECLINE)		
<u>E/CS Data Requirements:</u>		
<u>Reasons for Need:</u> BROADLEAF WEEDS		
<u>Use Pattern: (PCR):</u> 0.031 K=LB.AI/A; 2 APPLIC AFTER THE 3 LEAF GROWTH STAGE		
<u>Comments:</u> MI HAS SUPPORTING DATA: 09/03; MI RE-ACTIVATED WITH NEW FORMULATION GOAL TENDER 4SC & USE PATTERN: 11/06; MFG OK: 06/07; EPA CAUTION: 08/08		

PR #: P9049 **LAB:** NONE

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-WA*P01 Harvey, John	

CHEMICAL (MFG) PENDIMETHALIN (BASF,DREXEL) **COMMODITY (CROP GROUP)** ONION (GREEN) **STUDY DIRECTOR** ARSENOVIC **CROP GROUP** BULB VEGETABLE GROUP (03-07B)

Residue Data Requirements: COMPLETE
E/CS Data Requirements: ADDITIONAL CROP SAFETY DATA TO ADD CROP TO LABEL
Reasons for Need: ANNUAL GRASSES, BROADLEAF WEEDS
Use Pattern: (PCR): 0.50-2.0 LB AI/A; APPLY PRE TO EARLY POST (2-3 LEAVES)
Comments: POTENTIAL CROP GROUP TOL; FUTURE SUBMISSION FOR GREEN ONION (5097) ALSO INCLUDE LEEK (4578); TOLERANCE ESTABLISHED; USE IS ON MASTER LABEL BUT NOT ON MARKETING LABEL; NEED CROP SAFETY DATA AT 1X AND 2X:05/08

PR #: P5097 **LAB:** NONE

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NYP02 Bellinder, Dr. Robin	09-OHP03 Doohan, D.	09-NCP03 Batts, Roger B.	09-CAP02 Smith, Dr. Richard	

PENDIMETHALIN (BASF,DREXEL) KIWIFRUIT HOMA BERRY & SMALL FRUIT (13-07DE)

Residue Data Requirements: COMPLETE
E/CS Data Requirements:
Reasons for Need: ANNUAL WEEDS, BROADLEAF & GRASSES
Use Pattern: (PCR): 2-4 LB.AI/A; APPLY IN 20-40 GPA AS PREEMERGENCE NOVEMBER TO MARCH; 1-2 APPLIC PER YEAR; 60-80 DAY PHI
Comments: MFG SUPPORTS, BUT NEEDS CROP SAFETY & PERFORMANCE DATA BEFORE REGISTRATION:07/08. GLOBAL DATA ARE AVAILABLE TO SUPPORT A CODEX MRL:10/08. FUTURE SUBMISSION FOR HOPS (1978) & KIWIFRUIT (A6681).

PR #: A6681 **LAB:** 09-WUR03

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA28 Stewart, D. 09-CA29 Stewart, D. 09-CA30 Skiles, Keri	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
PENDIMETHALIN (BASF,DREXEL)	HOPS	ARSENOVIC	MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> ANNUAL GRASSES, ANNUAL BROADLEAF WEEDS, LANBSQUARTER			
<u>Use Pattern: (PCR):</u> 1 TO 2 LB.AI/A; GROUND BOOM SPRAYER; PREEMERGENCE TO WEEDS			
<u>Comments:</u> MFG WILL ANALYZE RESIDUE SAMPLES:10/08. FUTURE SUBMISSION FOR HOPS (1978) & KIWIFRUIT (A6681).			

PR #: 10244 **LAB:** 09-BAR01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-WA01 Groenendale, D.	
			09-WA02 Groenendale, D.	
			09-OR06 Koskela, Ms. Gina	
			09-ID16 Meeks, Mr. Will	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
PROHEXADIONE CALCIUM (BASF)	WATERCRESS	CORLEY	MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> GROWTH REGULATOR DURING WARM & RAINY WEATHER THAT CAUSE STEMS TO BE SPINDLY			
<u>Use Pattern: (PCR):</u> 3.85 - 8.0 OZ.AI/A; FOLIAR APPLIC; 1-3 APPLIC; 5-7 RE-TREATMENT INTERVALS; 7-DAY PHI; APPLY TO CROP WHICH IS LEAFED UP; APPLY ONLY DURING THE PERIODS WHEN THE WEATHER CONDITIONS ARE CONDUCIVE TO RADIP GROWTH			
<u>Comments:</u>			

PR #: 10151 **LAB:** 09-FLR12

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD02 Ross, Marylee		09-FL25 Minter, Mr. Tom		
09-MD03 Ross, Marylee		09-FL24 Minter, Mr. Tom		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
PROMETRYN (MANA,SYNGEN)	DILL	CORLEY	HERB SUBGROUP (19A)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> ANNUAL WEEDS			
<u>Use Pattern: (PCR):</u> 1.0 - 2.0 LB.AI/A; PREEMERGENCE 1 APPLIC WHEN DILL IS 6-8 INCHES TALL AND WEEDS UNDER 2 INCHES TALL; INCLUDE CROP OIL CONCENTRATE OR X77; MAXIMUM 2.0 LB AI/A/SEASON; MINIMUM 20 GPA; 30-DAY PHI.			
<u>Comments:</u> FOR CA ONLY PR# 2169 (TOL EST). FOR FL ONLY SEE PR# 1630 (24(C)).			

PR #: A3040 **LAB:** 08-CAR04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-OH*16 Horst, Leona			

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
PROPICONAZOLE (MANA,SYNGEN)	DILL	CORLEY	HERB SUBGROUP (19A)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> CERCOSPORA, POWDERY MILDEW			
<u>Use Pattern: (PCR):</u> FOLIAR; 0.05 TO 0.10 LB.AI/A			
<u>Comments:</u> EFF DATA NEEDED FOR CERCOSPORA TO BE LABELED:05/07; PROJECT IS RESEARCHABLE FOR POWDERY MILDEW:10/08.			

PR #: 06589 **LAB:** 09-MOR03

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-NC02 Batts, Roger B. 09-FL53 Studstill, David	09-ID03 Meeks, Mr. Will 09-WA*25 Harvey, John	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) PROPICONAZOLE + FLUDIOXONIL (MANA,SYNGEN) **COMMODITY (CROP GROUP)** TOMATO (PH) **STUDY DIRECTOR** CORLEY **CROP GROUP** FRUITING VEGETABLE GROUP (08)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: SOUR ROT, RHIZOPUS ROT, BLACK SPOT

Use Pattern: (PCR): 500 PPM (TANK CONCENTRATON); POSTHARVEST FRUIT DIP OR LINE SPRAY WITH OR WITHOUT FRUIT COATING; 1 APPLIC; APPLY 8-16 OZ OF MENTOR 45WP IN 100 GAL (200-250,000 LB OF FRUIT)

Comments: MFG WILL LIMIT REGISTRATION TO FRESH MARKET TOMATO ONLY; NO PROCESSING TOMATO TO BE TREATED POST-HARVEST: 08/08; FUTURE SUBMISSION FOR THIS CHEMICAL COMBINATION WILL ALSO INCLUDE PR# 10272 (FLUDIOXONIL)

PR #: 10182 **LAB:** 09-MOR08

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY12 Palmer, Mr. W.H.		09-FL06 Studstill, David 09-NC19 Batts, Roger B. 09-FL68 Studstill, David 09-NC32 Batts, Roger B.	09-CA98 Ennes, D. (Kearney)	

QUINCLORAC (ALBAGH,BASF,MANA) RHUBARB BARNEY LEAF PETIOLES SUBGROUP (04B)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: BINDWEED, HEDGE & FIELD CANADA THISTLE

Use Pattern: (PCR): 0.375 LBA.AI/A; FOLIAR; APPLY POSTEMERGENCE IN THE FALL TO BINDWEED JUST BEFORE THE FIRST FROST, OR APPLY IN SPRING WHEN BINDWEED VINES ARE 6 INCAHES LONG; SUPPRESSES CANADA THISTLE AT 0.375 LBS.AI/A, MAY NEED 2 APPLIC/YEAR TO CONTROL THIS WEED

Comments: BASF WILL NOT SUPPORT:07/08. ALBAUGH WILL SUPPORT:10/08. FUTURE SUBMISSION FOR CRANBERRY (8000) & RHUBARB (10135).

PR #: 10135 **LAB:** 09-CAR06

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
	09-MI08 Zandstra, Dr. Bernard H.		09-OR10 Koskela, Ms. Gina 09-OR11 Koskela, Ms. Gina 09-OR12 Koskela, Ms. Gina	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) QUIZALOFOP (DUPONT,GOWAN) **COMMODITY (CROP GROUP)** SORGHUM (GRAIN) **STUDY DIRECTOR** LEONARD **CROP GROUP** CEREAL & GRAIN GROUP (15-16)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: SUMMER ANNUAL GRASSES

Use Pattern: (PCR): 0.075 LB.IA/A; MAKE A SINGLE APPLIC WHEN TARGET WEEDS ARE LESS THAN 4 INCHES TALL AND SORGHUM PLANTS ARE UP TO 20 INCHES TALL (UP TO 6 LEAF-COLLARS); USE ONLY ON ACCASE-RESISTANT SORGHUM; INCLUDE A PETROLEUM CROP OIL CONCENTRATE AT 1%, MODIFIED SEED OIL, OR NONIONIC SURFACTANT AT 0.25%; 45-DAY PHI

Comments: GOWAN WILL NOT SUPPORT:06/09. FUTURE SUBMISSION FOR MUSTARD SEED (7340) & GRAIN SORGHUM (10092).

PR #: 10092 **LAB:** 09-CAR19

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>
09-MD08	Ross, Marylee	09-NE03	Spontanski, Jess J.	09-AR10	Burgos, N.	09-NM04	Craig, Maury (NMSU)	
		09-NE04	Spontanski, Jess J.	09-TX08	Gregg, Ms. Lori	09-NM12	Craig, Maury (NMSU)	
		09-KS02	Nord, Cathy	09-TX09	Gregg, Ms. Lori			
		09-NE02	Spontanski, Jess J.	09-TX10	Gregg, Ms. Lori			
		09-KS03	Nord, Cathy	09-NC15	Batts, Roger B.			

SIMAZINE (DREXEL,SYNGEN) PEAR LEONARD POME GROUP (11)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: WEEDS

Use Pattern: (PCR): 1.6 - 4.0 LB.AI/A; DIRECTED TO GROUND; APPLY AS SINGLE APPLICATION IN LATE FALL OR SPLIT APPLICATION IN FALL AND SPRING

Comments: DCI WILL REQUIRE NEW DATA (6 TRIALS) TO MAINTAIN CURRENT REGISTRATION:09/07. REREGISTRATION PROJECT:05/09. FUTURE SUBMISSION FOR PLUM (1926), PEAR (5466), QUINCE (1924), CRANBERRY (785) & STRAWBERRY (4935).

PR #: 05466 **LAB:** 09-FLR21

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY03	Bellinder, Dr. Robin		09-WA27	Groenendale, D.
			09-CA23	Skiles, Keri
			09-CA24	Stewart, D.
			09-ID01	Meeks, Mr. Will
			09-WA*26	Harvey, John

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
SIMAZINE (DREXEL,SYNGEN)	CHERRY	LEONARD	STONE FRUIT GROUP (12)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements:</p> <p>Reasons for Need: WEEDS</p> <p>Use Pattern: (PCR): 0.5 - 1.0 LB.AI/A; APPLY TO ORCHARD FLOOR IN LATE FALL TO EARLY SPRING PRIOR TO EMERGENCE, AT LEAST 6-9 MONTHS BEFORE HARVEST</p> <p>Comments: DCI WILL REQUIRE NEW DATA (4 TRIALS):09/07.</p>			
PR #: 01928	LAB: 08-FLR05		
NER - FRD	NCR - FRD	SOR - FRD	WSR - FRD
09-NY02 Palmer, Mr. W.H.	09-MI27 Zandstra, Dr. Bernard H.		
SIMAZINE (DREXEL,SYNGEN)	PLUM	LEONARD	STONE FRUIT GROUP (12)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements:</p> <p>Reasons for Need: WEEDS</p> <p>Use Pattern: (PCR): 0.5 - 1.0 LB.AI/A; APPLY TO ORCHARD FLOOR IN LATE FALL TO EARLY SPRING</p> <p>Comments: DCI WILL REQUIRE NEW DATA (4 TRIALS):09/07. COVERED NO DATA NEEDED, HOWEVER FOR NATIONAL USE THEN 4 MORE TRIALS ARE NEEDED:09/08. FUTURE SUBMISSION FOR PLUM (1926), PEAR (5466), QUINCE (1924), CRANBERRY (785) & STRAWBERRY (4935).</p>			
PR #: 01926	LAB: 09-FLR20		
NER - FRD	NCR - FRD	SOR - FRD	WSR - FRD
			09-CA18 Skiles, Keri
			09-CA19 Stewart, D.
			09-ID18 Meeks, Mr. Will
			09-OR28 Koskela, Ms. Gina
			CANADA - FRD

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) S-METOLACHLOR/METOLACHLOR (DREXEL,SYNGEN) **COMMODITY (CROP GROUP)** LETTUCE (HEAD) **STUDY DIRECTOR** ARSENOVIC **CROP GROUP** LEAFY GREENS SUBGROUP (04A)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: WEEDS

Use Pattern: (PCR): 0.5-1.0 LB AI/A; SOIL APPLIC; 1 APPLIC; 50-DAY PHI; APPLY POST PLANT PREEMERGENCE TO LETTUCE

Comments: MFG WILL SUPPORT APPLICATIONS TO TRANSPLANTED HEAD LETTUCE: 08/08; FUTURE SUBMISSION FOR LETTUCE (HEAD) (10218), LETTUCE (LEAF) (8982), SQUASH (SUMMER) (6656), STRAWBERRY (1676) INCLUDE CALABAZA (3659)

PR #: 10218 **LAB:** 09-BER04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY15 Bellinder, Dr. Robin		09-FL03 Studstill, David	09-CA*104 Benzen, Ms. Sharon D.	
09-NY16 Jordan, Mr. Grant			09-CA*105 Benzen, Ms. Sharon D.	
			09-CA103 Skiles, Keri	
			09-CA106 Boutwell, Brent	
S-METOLACHLOR/METOLACHLOR (DREXEL,SYNGEN)		LETTUCE (LEAF)	LEONARD	LEAFY GREENS SUBGROUP (04A)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: NUTSEDGE, ANNUAL GRASSES, BROADLEAF WEEDS

Use Pattern: (PCR): 0.65-0.94 LB AI/A; PRETRANSPLANT, POST-TRANSPLANT (SHORTLY AFTER TRANSPLANTING) OR POST EMERGENCE AFTER CULTIVATION

Comments: MFG WILL REQUIRE INDEMNIFICATION: 08/04; FUTURE SUBMISSION FOR LETTUCE (HEAD) (10218), LETTUCE (LEAF) (8982), SQUASH (SUMMER) (6656), STRAWBERRY (1676) INCLUDE CALABAZA (3659)

PR #: 08982 **LAB:** 08-YAR04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY08 Bellinder, Dr. Robin			09-NM03 Craig, Maury (NMSU)	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
S-METOLACHLOR/METOLACHLOR (DREXEL,SYNGEN)	STRAWBERRY	LEONARD	BERRY & SMALL FRUIT (13-07G)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> WEEDS, YELLOW NUTSEDGE, GRASSES			
<u>Use Pattern: (PCR):</u> POST; 1-2 LB AI/A/APPLIC IN 10-40 GPA; USE TWICE PER YEAR, TOTAL 2-4 LB AI/A; POTENTIAL APPLIC TIMINGS: RIGHT AFTER TRANSPLANTING A NEW CROP; IN THE SPRING IN ESTABLISHED CROPS; POST-RENOVATION; AND AFTER DORMANCY; 75-90 DAY PHI			
<u>Comments:</u> PERENNIAL & ANNUAL STRAWBERRIES: 09/08; FUTURE SUBMISSION FOR LETTUCE (HEAD) (10218), LETTUCE (LEAF) (8982), SQUASH (SUMMER) (6656), STRAWBERRY (1676) INCLUDE CALABAZA (3659)			

PR #: 01676 **LAB:** 08-YAR05

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL56 Studstill, David	09-CA*15 Benzen, Ms. Sharon D. 09-CA16 Ennes, D. (Kearney) 09-CA17 Farrar, Mr. Chuck	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
SPINETORAM (DOWAGR)	ORANGE	DORSCHNER	CITRUS FRUIT GROUP (10)
<u>Residue Data Requirements:</u>			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> CITRUS PSYLLID			
<u>Use Pattern: (PCR):</u> ULV APPLICATION; FOGGING WITH 3-5 GPA			
<u>Comments:</u> RESIDUE DATA REQUIRED FOR ULV APPLICATION <5 GPA; REGIONAL STUDY FOR FL ONLY: 12/08. 24(C) HAS BEEN ISSUED IN FL:07/09. MFG TO SUB IR-4 DATA:09/09.			

PR #: 10145 **LAB:** 09-FLR02

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL61 Johnson, Mr. Robert R. 09-FL62 Johnson, Mr. Robert R. 09-FL63 Johnson, Mr. Robert R.		

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) SPIRODICLOFEN (BAYER) **COMMODITY (CROP GROUP)** BANANA **STUDY DIRECTOR** DORSCHNER **CROP GROUP** MISCELLANEOUS COMMODITY (99)

Residue Data Requirements: COMPLETE
E/CS Data Requirements:
Reasons for Need: MITES
Use Pattern: (PCR): 16 OZ PRODUCT/A; FOLIAR; 7-DAY RE-TREATMENT INTERVAL; 7-DAY PHI; ALTERNATE WITH OTHER ACARICIDES
Comments:

PR #: 10039 **LAB:** 09-YAR01

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL37 Crane, Dr. Jonathan H.	09-HI06 Coughlin, Julie	
		09-FL38 Crane, Dr. Jonathan H.	09-HI07 Coughlin, Julie	
			09-HI08 Coughlin, Julie	

SPIROTETRAMAT (BAYER) BLUEBERRY LONSBARY BERRY & SMALL FRUIT (13-07B)

Residue Data Requirements:
E/CS Data Requirements:
Reasons for Need: APHIDS, SCALE INSECTS
Use Pattern: (PCR): 0.1 LB.A/A (6-8 FL.OZ); FOLIAR OR SOIL APPLIC; 2 APPLIC; 30 DAY RE-TREATMENT INTERVAL; 7-DAY PHI; SOIL APPLIC MUST BE FOLLOWED WITH IRRIGATION OR RAIN; 15 GPA MIN OF GROUND APPLIC
Comments: 2009 CANADIAN STUDY AAFC09-030R. CANADA SERVING AS STUDY DIRECTOR & SPONSOR:03/09.

PR #: 10194 **LAB:** 09-CAR142

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-ME132 Collins, J.	09-MI136 Wise, Dr. John C.	09-NC140 Batts, Roger B.	09-OR139 DeFrancesco, Mr. Joe	09-NS134 Peill, Heather
09-NJ133 Freiberger, Tom	09-MI137 Wise, Dr. John C.	09-NC141 Batts, Roger B.		09-NS135 Peill, Heather
				09-NB131 Leblanc, S.
				09-ON138 Pogoda, Mitch

<u>CHEMICAL (MFG)</u>		<u>COMMODITY (CROP GROUP)</u>		<u>STUDY DIRECTOR</u>		<u>CROP GROUP</u>
SPIROTETRAMAT (BAYER)		CRANBERRY		LONSBARY		BERRY & SMALL FRUIT (13-07GH)
<u>Residue Data Requirements:</u>						
<u>E/CS Data Requirements:</u>						
<u>Reasons for Need:</u> CRANBERRY TIPWORM						
<u>Use Pattern: (PCR):</u> 0.13-0.26 AI/A; FOLIAR; 3 APPLIC; 10-14 RE-TREATMENT INTERVAL; 30-DAY PHI; APPLY AT EGG LAYING, CAN BE APPLIED WITH NIS SURFACTANT; AVOID APPLIC WHILE BEES ARE ACTIVELY FORAGING						
<u>Comments:</u> 2009 CANADIAN STUDY AAFC09-050R. CANADA SERVING AS STUDY DIRECTOR & SPONSOR:03/09.						
<u>PR #:</u> 10198	<u>LAB:</u> 09-CAR149					
<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>
09-MA144	Sylvia, M.	09-WI145	Chapman, S.	09-OR148	DeFrancesco, Mr. Joe	<u>CANADA - FRD</u>
09-NJ143	Freiberger, Tom	09-WI146	Chapman, S.			09-BC147 Brookes, Ms. Victoria

SPIROTETRAMAT (BAYER)		ARTICHOKE		LONSBARY		MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u>						
<u>E/CS Data Requirements:</u>						
<u>Reasons for Need:</u> ARTICHOKE APHID, GREEN PEACH APHID, BLACK BEAN APHID						
<u>Use Pattern: (PCR):</u> 8 FL.OZ OF PRODUCT/A; FOLIAR APPLIC; 4 APPLIC/YEAR; 2-WEEK RE-TREATMENT INTERVAL; 3-DAYS PHI; GROUND APPLIC: IN 50-100 GPA; AIR APPLIC: IN 10-20 GPA						
<u>Comments:</u> MFG REQUIRES EFFICACY DATA. CANADA COLLECTING EFFICACY DATA:09/08. 2009 CANADIAN STUDY AAFC09-028R. CANADA SERVING AS STUDY DIRECTOR & SPONSOR:03/09.						
<u>PR #:</u> 10243	<u>LAB:</u> 09-CAR127					
<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>
				09-CA128	Bari, Dr. Mohammad H.	09-BC126 Brookes, Ms. Victoria
				09-CA129	Bari, Dr. Mohammad H.	09-QC125 Trudeau, M.
				09-CA130	Bari, Dr. Mohammad H.	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
SPIROTETRAMAT (BAYER)	BANANA	DORSCHNER	MISCELLANEOUS COMMODITY (99)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: BANANA APHID (PENTALONIA NIGRONERVOSA)			
Use Pattern: (PCR): 0.25 LB.AI/A; UP TO 5 FOLIAR APPLIC/SEASON; 14 DAY RE-TREATMENT INTERVAL; 14 DAY PHI; APPLY AT FIRST SIGN OF APHIDS, APPLY IN SUFFICIENT SPRAY VOLUME, BUT WITHOUT RUNOFF; USE W/SURFACTANT AT 0.25% V/V; UP TO 2 OR 3 SEQUENTIAL APPLIC, THEN ROTATE TO ALTERNATIVE MODE OF ACTION INSECTICIDE			
Comments: HI HAS EFFICACY TRIALS ON-GOING:08/07.			
PR #: 10042	LAB: 08-CAR08		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
SPIROTETRAMAT (BAYER)	COFFEE		09-HI14 Coughlin, Julie DORSCHNER MISCELLANEOUS COMMODITY (99)
Residue Data Requirements: COMPLETE			
E/CS Data Requirements:			
Reasons for Need: GREEN SCALE (COCCUS VIRIDIS)			
Use Pattern: (PCR): 0.25 LB.AI/A; FOLIAR APPLIC; UP TO 3 APPLIC/SEASON; 21 DAYS RE-TREATMENT INTERVAL; 14 DAYS PHI; APPLY AT FIRST SIGN OF SCALES, APPLY IN SUFFICIENT SPRAY VOLUME, BUT WITHOUT RUNOFF; USE W/SURFACTANT AT 0.25% V/V; UP TO 2 OR 3 SEQUENTIAL APPLIC, THEN ROTATE TO ALTERNATIVE MODE OF ACTION INSECTICIDE			
Comments: HI HAS EFFICACY TRIALS ON-GOING:08/07.			
PR #: 10041	LAB: 09-CAR14		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u> <u>CANADA - FRD</u>
			09-HI09 Kam, James 09-HI10 Kam, James 09-HI11 Kam, James 09-HI13 Kam, James 09-HI12 Kam, James

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
SPIROTETRAMAT (BAYER)	POMEGRANATE	DORSCHNER	MISCELLANEOUS COMMODITY (99)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> APHIDS, WHITEFLIES, GRAPE MEALYBUGS			
<u>Use Pattern: (PCR):</u> MAX SINGLE APPLIC 10 OZ/A; MAX PER SEASON 20 OZ/A; 30 DAY SPRAY INTERVAL; 30-DAY PHI			
<u>Comments:</u>			
<u>PR #:</u> 10113	<u>LAB:</u> 09-CAR09		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
			09-CA69 Ennes, D. (Kearney)
			09-CA70 Ennes, D. (Kearney)
			09-CA71 Stewart, D.
			09-CA72 Stewart, D.
			<u>CANADA - FRD</u>

CHEMICAL (MFG)

STREPTOMYCIN (AGROSO,MANA,NUFARM)

COMMODITY (CROP GROUP)

TOMATO (FIELD & GH)

STUDY DIRECTOR

THOMPSON

CROP GROUP

FRUITING VEGETABLE GROUP (08)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: BACTERIAL DISEASES

Use Pattern: (PCR): 1-1.5 LB.PRODUCT/A; MAKE 2 FOLIAR APPLIC 7-14 DAYS APART, BEGINNING AT FIRST SIGN OF BACTERIAL DISEASE; 7-DAY PHI

Comments: AGRO SOURCE APPROVAL:02/08. FUTURE SUBMISSION FOR GRAPEFRUIT (10043) & TOMATO (FIELD & GH) (1602).

PR #: 01602

LAB: 09-FLR23

NER - FRD

09-NY01 Jordan, Mr. Grant
09-MD19 Ross, Marylee

NCR - FRD

09-WI01 Heider, Daniel J.

SOR - FRD

09-NC01 Batts, Roger B.
09-FL57 Studstill, David
09-FL58 Studstill, David

WSR - FRD

09-CA11 Stewart, D.
09-CA10 Farrar, Mr. Chuck
09-CA06 Skiles, Keri
09-CA08 Farrar, Mr. Chuck
09-CA09 Stewart, D.
09-CA12 Boutwell, Brent
09-CA13 Boutwell, Brent
09-CA07 Ennes, D. (Kearney)
09-CO01 Loiz, Meghan
09-NM09 Craig, Maury (NMSU)
09-NM10 Craig, Maury (NMSU)
09-AZ*06 Miller, Barry
09-CA14 Skiles, Keri

CANADA - FRD

CHEMICAL (MFG)

SULFENTRAZONE (FMC)

COMMODITY (CROP GROUP)

APPLE

STUDY DIRECTOR

LEONARD

CROP GROUP

POME GROUP (11)

Residue Data Requirements: COMPLETE

E/CS Data Requirements: COMPLETE 2-YR CROP SAFETY STUDY

Reasons for Need: NUTSEDGE, BROADLEAF WEEDS

Use Pattern: (PCR): ORCHARD FLOOR; 0.250 AND 0.375 LB AI/A

Comments: MFG REQUIRES MULTIPLE YEAR CROP SAFETY DATA ON TREATED PLOTS PRIOR TO REGISTRATION:10/08; MFG TO CONSIDER SUBMITTING IR-4 DATA:06/09

PR #: 07770 **LAB:** 09-FLR09

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>	
09-NY06	Bellinder, Dr. Robin	09-MI18	Zandstra, Dr. Bernard H.	09-NC06	Batts, Roger B.	09-WA*20	Harvey, John		
09-NY07	Humphreys, Harry	09-MI19	Zandstra, Dr. Bernard H.			09-ID05	Meeks, Mr. Will		
09-NJ03	Freiberger, Tom					09-WA21	Groenendale, D.		
						09-CO04	Loiz, Meghan		
						09-CA36	Skiles, Keri		
						09-WA*19	Harvey, John		

PR #: P7770 **LAB:** NONE

<u>NER - FRD</u>		<u>NCR - FRD</u>		<u>SOR - FRD</u>		<u>WSR - FRD</u>		<u>CANADA - FRD</u>	
09-WVP01	Chandra, Rakesh	09-MIP01	Zandstra, Dr. Bernard H.	09-NCP01	Mitchem, Wayne				

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
SWITCH, PROVADO, SUCCESS (BAYER,DOWAGR,SYNGEN)	BRASSICA CROP GROUP 05	BARNEY	BRASSICA LEAFY GROUP (05)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> CROP GROUP VALIDATION			
<u>Use Pattern: (PCR):</u>			
<u>Comments:</u> TEST CROPS: BROCCOLI, CABBAGE, CHINESE BROCCOLI, CHINESE CABBAGE (NAPA), KOHLRABI, MUSTARD GREENS, KALE & CHINESE CABBAGE (BOK CHOY)			

PR #: 10260 **LAB:** 08-EPA

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL01 Studstill, David	09-CA04 Farrar, Mr. Chuck	

TEBUCONAZOLE (BAYER,MANA,UPI)	TURNIP GREENS	CORLEY	ROOT SUBGROUP (01AB)
<u>Residue Data Requirements:</u> 10 (NEED ROOTS)			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> CERCOSPORA LEAF SPOT			
<u>Use Pattern: (PCR):</u>			
<u>Comments:</u> PER EPA CONDITIONAL REGISTRATION, NEED CA TRIALS FOR ROOTS DATA ONLY:06/08. COMPLETE CA 2009 TRIAL AN DSUB TO REMOVE CA ROOT RESTRICTION:05/09.			

PR #: A6234 **LAB:** 09-MOR04

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA*26 Benzen, Ms. Sharon D. 09-CA25 Boutwell, Brent	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
TEBUCONAZOLE (BAYER,MANA,UPI)	GREENS (MUSTARD)	CORLEY	LEAFY BRASSICA GREENS SUBGROUP (05B)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: CERCOSPORA LEAF SPOT, POWDERY MILDEW

Use Pattern: (PCR): FOLIAR SPRAY; 0.1125 LB.AI/A; 4 APPLIC; 14 DAY INTERVALS; 7 DAY PHI

Comments: STUDY 06233 ARCHIVED R5A,R6,S2. SUBMISSION FOR MUSTARD GREENS (6233) ALSO INCLUDE COLLARD (6232) & KALE (6510). EPA REQUIRES ADDITIONAL TRIAL IN REGION 3:07/08. FUTURE SUBMISSION FOR BARLEY (A6513), MUSTARD GREENS (B6233), TOMATO (GH) (10134) & WATERCRESS (A6481).

PR #: B6233 **LAB:** 09-TIR03

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
		09-FL54 Studstill, David		
		09-GA*01 Fraelich, Ben		

TEBUCONAZOLE (BAYER,MANA,UPI)	TOMATO (GH)	CORLEY	FRUITING VEGETABLE GROUP (08)
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Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: POWDERY MILDEW

Use Pattern: (PCR): APPLY AS A FOLIAR SPRAY; 0-3 DAY PHI

Comments: (GREENHOUSE) MFG SUBMITTING A PETITION FOR FIELD GROWN FRUITING VEGETABLES BEFORE THE END OF 2008. FUTURE SUBMISSION FOR BARLEY (A6513), MUSTARD GREENS (B6233), TOMATO (GH) (10134) & WATERCRESS (A6481).

PR #: 10134 **LAB:** 09-MOR06

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD07 Ross, Marylee		09-FL26 Studstill, David	09-CO10 Loiz, Meghan	
		09-TX06 Gregg, Ms. Lori		

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
TEBUCONAZOLE (BAYER,MANA,UPI)	CANTALOUPE	CORLEY	MELON SUBGROUP (09A)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> SOUTHERN BLIGHT, POWDERY MILDEW			
<u>Use Pattern: (PCR):</u>			
<u>Comments:</u> SUBMISSION FOR CANTALOUPE (5091), SUMMER SQUASH (5279) & CUCUMBER (5277) COVERS WINTER SQUASH (6322), WATERMELON (6321), PUMPKIN (5278) & CALABAZA (5400). PER EPA CONDITIONAL REGISTRATION, NEED 2 CA TRIALS:06/08.			

PR #: A5091 **LAB:** 09-TIR05

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA21 Boutwell, Brent	
			09-CA22 Skiles, Keri	
			09-AZ*05 Miller, Barry	
			09-AZ*07 Miller, Barry	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
TEBUCONAZOLE (BAYER,MANA,UPI)	BARLEY	CORLEY	CEREAL & GRAIN GROUP (15-16)
<u>Residue Data Requirements:</u> COMPLETE			
<u>E/CS Data Requirements:</u>			
<u>Reasons for Need:</u> BARLEY STRIPE RUST			
<u>Use Pattern: (PCR):</u> FOLIAR; 1.8 OZ.AI/A; 1 APPLIC AT 50% HEADING			
<u>Comments:</u> TIME LIMITED TOLERANCE, EXPIRES 06/30/08, RULE:06/05. REGISTERED FOR BARLEY AND WHEAT MAY 2008; CONDITIONAL ON ADDITIONAL RESIDUE TRIALS IN REGIONS 10 AND 11, PLUS STORAGE STABILITY DATA IN STRAW:07/08. FUTURE SUBMISSION FOR BARLEY (A6513), MUSTARD GREENS (B6233), TOMATO (GH) (10134) & WATERCRESS (A6481).			

PR #: A6513 **LAB:** 09-MOR09

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-CA27 Boutwell, Brent	
			09-WA24 Groenendale, D.	
			09-ID02 Meeks, Mr. Will	

ATTACHMENT 2 Continued

**2009 IR-4 SCHEDULED STUDIES
Residue and Efficacy/Crop Safety (E/CS)**

02/02/2010

CHEMICAL (MFG) THIAMETHOXAM (SYNGEN) **COMMODITY (CROP GROUP)** CANEBERRY **STUDY DIRECTOR** SWITEK **CROP GROUP** BERRY & SMALL FRUIT (13-07A)

Residue Data Requirements: COMPLETE

E/CS Data Requirements:

Reasons for Need: APHID, LEAFHOPPER, ADULT ROOT WEEVIL

Use Pattern: (PCR): 0.188 LB.AI/A (12 FL.OZ PRODUCT/A); DIRECTED TO THE SOIL IN THE PLANT ROW; 1 APPLIC; 60-DAY PHI; APPLY PRIOR TO A RAIN EVENT OR IRRIGATE AFTER APPLIC

Comments: SEE PR# 08039 FOR FOLIAR APPLICATION

PR #: 10246 **LAB:** 09-MIR12

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-NY19 Palmer, Mr. W.H.	09-MI02 Zandstra, Dr. Bernard H.	09-NC23 Batts, Roger B.	09-OR04 DeFrancesco, Mr. Joe 09-OR29 DeFrancesco, Mr. Joe 09-CA101 Ennes, D. (Kearney) 09-OR05 DeFrancesco, Mr. Joe	

TRIFLUMIZOLE (CHMTRA) CUCUMBER (GH) HOMA SQUASH/CUCUMBER SUBGROUP (09B)

Residue Data Requirements: COMPLETE

E/CS Data Requirements: REPEAT AZ TRIAL (NO POWDERY MILDEW IN 2009)

Reasons for Need: POWDERY MILDEW

Use Pattern: (PCR): FOLIAR SPRAY; 0-DAY PHI

Comments: FIELD LABELED; MFG REQUIRES ADDITIONAL EFFICACY:01/05

PR #: 09300 **LAB:** 09-CAR07

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
09-MD13 Ross, Marylee		09-TX18 Gregg, Ms. Lori 09-FL42 Studstill, David	09-CO08 Loiz, Meghan	

PR #: P9300 **LAB:** NONE

<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>	<u>CANADA - FRD</u>
			09-AZP01 Matheron, Dr. Michael E.	

<u>CHEMICAL (MFG)</u>	<u>COMMODITY (CROP GROUP)</u>	<u>STUDY DIRECTOR</u>	<u>CROP GROUP</u>
V-10135 (VALENT)	CANEBERRY	CARPENTER	BERRY & SMALL FRUIT (13-07A)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements:</p> <p>Reasons for Need: BOTRYTIS</p> <p>Use Pattern: (PCR): 0.25 LB; FOLAIR SPRAY; 1 DAY PHI</p> <p>Comments: EPA CAUTION:08/08.</p>			
PR #: 09444	LAB: 09-MIR15		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
	09-MI16 Zandstra, Dr. Bernard H.	09-NC09 Batts, Roger B.	09-CA53 Ennes, D. (Kearney)
	09-MI28 Zandstra, Dr. Bernard H.		09-OR24 Koskela, Ms. Gina
			09-OR25 Koskela, Ms. Gina
			09-OR26 Koskela, Ms. Gina
			<u>CANADA - FRD</u>
V-10135 (VALENT)	BLUEBERRY	CARPENTER	BERRY & SMALL FRUIT (13-07B)
<p>Residue Data Requirements: COMPLETE</p> <p>E/CS Data Requirements:</p> <p>Reasons for Need: MONILINIA, BOTRYTIS</p> <p>Use Pattern: (PCR): NO USE PATTERN DEFINED</p> <p>Comments: EPA CAUTION:08/08.</p>			
PR #: 09445	LAB: 09-MIR14		
<u>NER - FRD</u>	<u>NCR - FRD</u>	<u>SOR - FRD</u>	<u>WSR - FRD</u>
09-ME01 Yarborough, Dr. Dave	09-MI13 Wise, Dr. John C.	09-NC11 Batts, Roger B.	09-OR20 Koskela, Ms. Gina
09-NJ06 Freiburger, Tom	09-MI14 Zandstra, Dr. Bernard H.		
09-NJ07 Freiburger, Tom	09-MI15 Zandstra, Dr. Bernard H.		
09-NJ11 Freiburger, Tom			

CHEMICAL (MFG)

ZETA-CYPERMETHRIN (FMC)

COMMODITY (CROP GROUP)

ORANGE

STUDY DIRECTOR

DORSCHNER

CROP GROUP

CITRUS FRUIT GROUP (10)

Residue Data Requirements:

E/CS Data Requirements:

Reasons for Need: CITRUS PSYLLID

Use Pattern: (PCR): SEE LABEL; FOGGING WITH 2-5 GALLONS PER ACRE

Comments: RESIDUE DATA REQUIRED FOR ULV APPLICATION <5 GPA; REGIONAL STUDY FOR FL ONLY:11/08. MFG TO SUBMIT IR-4 DATA:09/09.

PR #: 10101

LAB: 09-FLR01

NER - FRD

NCR - FRD

SOR - FRD

WSR - FRD

CANADA - FRD

09-FL59 Johnson, Mr. Robert R.
09-FL60 Johnson, Mr. Robert R.
09-FL61 Johnson, Mr. Robert R.

ATTACHMENT 3 – Registration Packages Submitted in 2009

Completed Petitions or Final Reports Submitted to EPA or to MFG for submissions to EPA

Pest Control Agent / Type*		Commodity or Crop Group	PR#	Date
Thifensulfuron-methyl	H	Safflower	A3454	Jan 09 2009
Clothianidin	I	Peach	08544 A8544	Jan 14 2009
		Cranberry	09399	
Acetamiprid	I	Fruit, small, vine climbing, except fuzzy kiwifruit, subgroup 13-07F	09057	Mar 12 2009
		Clover (grown for seed)	09600	
		Tomato (greenhouse)	08354	
Carfentrazone	H	Onion, dry bulb (label change)	09034	Mar 16 2009
Novaluron	I	Vegetable, fruiting, group 8	08985	Mar 17 2009
		Okra	08634	
		Cocona		
		African eggplant		
		Pea eggplant		
		Scarlet eggplant		
		Goji berry		
		Garden huckleberry		
		Martynia		
		Naranjilla		
Roselle				
Sunberry				
Bush tomato				
Currant tomato				
Tree tomato				
		Vegetable, cucurbit, group 9	08988 08989 08990	
		Berry, low growing, subgroup 13-07G	09782 10050	
		Bean, snap	08128	
		Bean, dry	09781	
		Swiss chard	09745	
Diazinon	I	Mushroom	10262	Mar 20 2009
<i>Clavibacter michiganensis</i> subspecies <i>michiganensis</i>	F	Tomato	0430B	Mar 27 2009
Bifenazate	I	Bean, succulent and dried (storage stability study)	08929	Apr 02 2009
Quinoxyfen	F	Hop (EU MRL)	10084	Apr 24 2009
Fluazinam	F	Carrot	07094	May 15 2009
S-Metolachlor	H	Calendula	10280	May 21 2009
Diquat	H	Calendula	10281	May 21 2009
*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscide, P=plant growth regulator, R=rodenticide				

ATTACHMENT 3 Continued

Completed Petitions or Final Reports Submitted to EPA or to MFG for submission to EPA

Pest Control Agent / Type*		Commodity or Crop Group	PR#	Date
Halosulfuron-methyl	H	Vegetable, tuberous and corm, subgroup 1C	07281 08937	Jun 3 2009
		Pea and bean, succulent shelled, subgroup 6B	02686	
		Pea and bean, dried shelled, except soybean, subgroup 6C	08976	
		Bushberry subgroup 13-07B	09243	
		Rhubarb	09407	
		Apple	07769	
		Okra	08838	
Acetamiprid	I	Tea	10316	Jun 10 2009
Mefenoxam	F	Caneberry subgroup 13-07A	01169	Jul 10 2009
		Bushberry subgroup 13-07B		
		Bean, snap, succulent	08430 08371	
		Spinach	08431	
		Onion, bulb, subgroup 3-07A		
		Onion, green, subgroup 3-07B		
Tobacco MGMV*	H	All commodities	0364B	Jul 23 2009
Fenpropathrin	I	Sugar apple	07864	Jul 23 2009
		Lychee	07865	
		Guava	07866	
		Jaboticaba	07867	
		Wax jambu	07868	
		Starfruit		
		Passionfruit	07871	
		Acerola	07872	
		Feijoa		
		Longan		
		Spanish lime		
		Pulasan		
		Rambutan		
		Atemoya		
		Biriba		
		Cherimoya		
		Custard apple		
Ilama				
Soursop				
		Tea	10318	
Acequinocyl	I	Vegetable, fruiting, group 8	08356 08605 08858	Jul 30 2009
		Okra	09275	
		Bean, edible podded	08673	
		Hops	09370	
Glufosinate-ammonium	H	corn, sweet	06953 A6515	Aug 06 2009

*F=fungicide, H=herbicide, I=insecticide/acaricide, MGMV=Mild Green Mosaic Virus

ATTACHMENT 3 Continued

Completed Petitions or Final Reports Submitted to EPA or to MFG for submission to EPA

Pest Control Agent / Type*		Commodity or Crop Group	PR#	Date
S-metolachlor	H	Sesame	06516	Aug 11 2009
		Melon subgroup 9A	A6178	
		Bushberry subgroup 13-07B Blueberry, lowbush	B2616	
		Caneberry subgroup 13-07A	A3497	
		Sorghum, sweet	03840	
		Brassica, leafy greens, subgroup 5B Turnip greens	02255	
		Carrot	08981	
		Cucumber	06657	
		Okra	---	
		Onion, bulb, subgroup 3-07A	---	
		Onion, green, subgroup 3-07B	---	
Flutolanil	H	Vegetable, brassica, leafy, group 5	08760 08840 09263 08841	Aug 20 2009
		Turnip greens	10227	
		Ginseng	09392	
Chlorothalonil	F	Berry, low growing, subgroup 13-07G	00577	Aug 24 2009
		Onion, green, subgroup 3-07B (subgroup tolerance requested, based on commodity tolerance)		
		Caneberry subgroup 13-07A (subgroup tolerance requested, based on commodity tolerance)	---	
		Bushberry subgroup 13-07B (subgroup tolerance requested, based on commodity tolerance)	---	
Cyazofamid	F	Brassica, head and stem, subgroup 5A	09082 09717	Aug 31 2009
		Brassica, leafy greens, subgroup 5B	09083 09084	
		Turnip greens		
		Spinach	09265	
		Hops	09823	
Linuron	H	Pea (dry)	09651 10098	Sep 21 2009
		Parsley	03035	
Linuron (re-activated)	H	Horseradish	03609	Sep 21 2009
		Celeriac	03557	
		Rhubarb	---	
Spinetoram	I	Fruit, citrus, group 10 (label change)	10145	Sep 22 2009
Glyphosate	H	Strawberry (label change)	01409	Sep 28 2009
Glufosinate	H	Peach, MFG submitted IR-4 data	08720	Oct 27 2009
Fomesafen	H	Pepper, MFG submitted IR-4 data	09677	Oct 27 2009
Flumioxazin	H	Peach, MFG submitted IR-4 data	09346	Oct 27 2009

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscide, P=plant growth regulator, R=rodenticide

ATTACHMENT 3 Continued

Completed Petitions or Final Reports Submitted to EPA or to MFG for submission to EPA

Pest Control Agent / Type*		Commodity or Crop Group	PR#	Date
Bifenazate	I	Sugar apple	08927	Nov 11 2009
		Cherimoya		
		Atemoya		
		Custard apple		
		Ilama		
		Soursop		
		Biriba		
		Avocado	08269	
		Fruit, small, vine climbing, except fuzzy kiwifruit, subgroup 13-07F	---	
		Berry, low growing, subgroup 30-07G	10085	
Bifenthrin	I	Grass (tolerance for regional registration in Idaho, Oregon, and Washington)	09476	Nov 23 2009
		Tea	10317	
S-Metolachlor	H	Tomato (label change, shorter PHI)	09668	Nov 23 2009 MFG submitted IR-4 data.
Aspergillus flavus AF36	F	Corn	0378B	Dec 01 2009
Propiconazole	F	Mint	09419	Dec 08 2009
		Onion, bulb, subgroup 3-07A	---	
		Onion, green, subgroup 3-07B	---	
		Caneberry subgroup 13-07A	---	
		Bushberry subgroup 13-07B	---	
		Berry, low growing, subgroup 13-07G	---	
Etoxazole	I	Summer squash	09205	Dec 23 2009
		Pepper, bell and non-bell	09234	
		Caneberry	08096	
		Avocado	09738	
		Papaya	09292	
		Mango	09216	
		Black sapote		
		Canistel		
		Mamey sapote		
		Sapodilla		
Star apple				
		Subgroup 13-07G	10341	
		Subgroup 13-07F	10342	
Triflurosulfuron-methyl	H	garden beet	08043	Dec 24 2009
Pronamide	H	Lettuce (leaf) – label change/tolerance MFG will submit	08709	Dec 03 2009
Oxyfluorfen	H	Cabbage – label change	A5255	Dec 08 2009
		Broccoli – MFG will submit IR-4 data	08806	Dec 08 2009
Kasugamycin	F	Pepper – MFG will submit IR-4 data	09802	Dec 08 2009
		Pear – MFG will submit IR-4 data	09619	Dec 08 2009
		Walnut – MFG will submit IR-4 data	09772	Dec 15 2009

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscicide, P=plant growth regulator, R=rodenticide

ATTACHMENT 3 Continued

Reports Submitted to Codex or other International agencies.

Pest Control Agent - Agency / Type*		Commodity	Date	
Indoxacarb - Codex	I	Vegetable, cucurbit, group 9	Feb 13 2009	
		Fruit, stone, group 12		
		Cranberry		
		Pea, southern		
		Mint		
Methoxyfenozide - Codex	I	Vegetable, root, subgroup 1A	Feb 13 2009	
		Vegetable, tuberous and corm, except potato, subgroup 1D		
		Vegetable, legume, edible podded, subgroup 6A		
		Pea and bean, succulent shelled, subgroup 6B		
		Bean (dry seed)		
		Soybean		
		Vegetable, cucurbit, group 9		
		Fruit, citrus, group 10		
		Bushberry subgroup 13B		
		Cranberry		
		Strawberry		
		Peanut		
		Avocado		
		Papaya		
Buprofezin - Codex	I	Grape	Jan 13 2009	
		Fruiting Vegetables		
		Pome Fruit		
		Stone fruit		
		Bean		
		Cucurbits		
		Olive		
		Almond		
Quinoxyfen - EU	F	Hops	10084	Apr 24 2009
Acequinocyl - Japan	I	Hops	09370	Sept 10, 2009

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscide, P=plant growth regulator, R=rodenticide

ATTACHMENT 4 - New Tolerances and Approvals – 2009

1) RULES PUBLISHED IN THE FEDERAL REGISTER

Permanent Tolerances

Pest Control Agent / Type*		Date	Commodity or Crop Group	PR#	No. of Uses	No. of Tolerances
Dimethomorph	F	Mar 04 2009	Ginseng	08958	1	1
			Turnip, greens	07599	3	1
			Bean, lima (regional registration)	07261	1	1
			Bean, succulent (regional registration)	---	14	1
			Grape (regional registration)	06794	1	2
			Potato	---	1	2
Famoxadone	F	Mar 04 2009	Caneberry subgroup 13-07A (replaces tolerance on subgroup 13A)	08766	1	1
			Vegetable, leafy, except brassica, group 4, except spinach (replaces tolerance on head lettuce)	08499 08758	27	1
			Cilantro	---	1	1
			Spinach	08308	1	1
			Onion, bulb, subgroup 3-07A	08303	26	2
			Onion, green, subgroup 3-07B			
Tebuconazole	F	Mar 04 2009	Cherry (pre- and post-harvest)	06554	1	2
Chlorimuron-ethyl	H	Mar 11 2009	Berry, low growing, except strawberry, subgroup 13-07H	03023	8	1
Fenpropathrin	I	Mar 25 2009	Caneberry subgroup 13-07A	08735	5	1
			Fruit, stone, group 12, except cherry	08962 08963	10	1
			Cherry	08016	1	2
			Nut, tree, group 14	08961	13	3
			Pistachio			
			Olive	09374	1	1
			Avocado	07861	8	8
			Black sapote	07858		
			Canistel	07862		
			Mamey sapote	07863		
Mango	07859					
Papaya	07856					
Sapodilla	07860					
Star apple	07857					
Propiconazole	F	Mar 25 2009	Beet, garden	06352	2	2
			Cilantro	06371	1	1
			Parsley	06351	1	1
			Pineapple	06585	1	1
Totals					129	38

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscide, P=plant growth regulator, R=rodenticide

ATTACHMENT 4 – Continued

Pest Control Agent / Type*		Date	Commodity or Crop Group	PR#	No. of Uses	No. of Tolerances			
Quinoxifen	F	Apr 01 2009	Fruit, stone, group 12 (replaces tolerances on sweet and tart cherries)	08462 08463	9	1			
			Artichoke, globe	08817	1	1			
			Squash, winter Pumpkin Gourd, edible	07653 08639	3	3			
Spiromesifen	I	Apr 08 2009	Berry, low growing, subgroup 13-07G (replaces tolerance on strawberry)	10086	8	1			
			Corn, sweet	09924	1	3			
Cyhalofop-butyl	H	Apr 08 2009	Wild rice	08951	1	1			
Acibenzolar	F	May 26 2009	Onion, bulb, subgroup 3-07A	09090	11	1			
Etoxazole	I	May 27 2009	Cucumber	09208	1	1			
			Tomato	09109	2	1			
			Peppermint Spearmint	08816	2	4			
			Fruit, stone, group 12, except plum (Tolerance already established on cherry) Plum	09045 09046	10	3			
Triflumizole	F	Jun 03 2009	Leafy greens subgroup 4A, except spinach	08863 08868 08993 09298	21	1			
			Brassica, head and stem, subgroup 5A	08869 09143 09319 09586	11	1			
			Brassica, leafy greens, subgroup 5B	08865 08866	8	1			
			Cilantro leaves	08864	1	1			
			Swiss chard	08867	1	1			
			Turnip greens	08883	1	1			
			Hops	08967	1	1			
			Pineapple	08830	1	1			
			Papaya Black sapote Canistel Mamey sapote Mango Sapodilla Star apple	09332	7	7			
			Cyazofamid	F	Jul 08 2009	Vegetable, fruiting, group 8 Okra	08509	9	2
						Grape (east of Rocky Mountains)	08773	1	1
Totals					111	38			

ATTACHMENT 4 – Continued

Pest Control Agent / Type*	Date	Commodity or Crop Group	PR#	No. of Uses	No. of Tolerances	
Pyrimethanil	F	Jul 08 2009	Fruit, citrus, group 10, except lemon, postharvest Lemon, preharvest and postharvest (Above tolerances replace tolerance on Fruit, citrus, group 10 postharvest)	09085	1	3
			Fruit, stone, group 12 (Replaces tolerance on Fruit, stone, group 12, except cherry with increased tolerance that includes cherry)	08700 08701 08702	11	1
Buprofezin	I	Jul 10 2009	Coffee	08828	1	1
			Pomegranate	08973	1	1
Indoxacarb	I	Jul 10 2009	Beet, garden	08870	2	2
			Bushberry subgroup 13-07B	07038	19	1
Fenamidone	F	Jul 15 2009	Vegetable, root, except sugar beet, subgroup 1B, except radish	---	16	1
			Cilantro leaves	---	1	1
			Turnip greens	07975	3	1
			Okra	---	1	1
			Grape (east of Rocky Mountains)	08164	1	1
Fenpyroximate	I	Jul 29 2009	Vegetable, fruiting, group 8	08617 09021 09027 09284	10	2
			Okra	09022	3	1
			Melon subgroup 9A	10109	1	1
			Cucumber	10109	1	1
Spinetoram	I	Aug 13 2009	Date	10152	1	1
			Pomegranate	10197	1	1
			Pineapple	10133	1	2
			Hops	10089	1	1
			Spice subgroup 19B	---	30	1
Methoxyfenozide	I	Sep 02 2009	Fruit, citrus, group 10 (regional registrations)	07061 09367 09414 09415	14	2
			Corn, pop	10094	1	2
			Pea, dry seed	07527	2	1
			Pomegranate	10160	1	1
Pendimethalin	H	Sep 09 2009	Olive	07607	1	1
Spinosad	I	Sep 23 2009	Date	10153	1	1
			Pomegranate	10228	1	1
Thiamethoxam	I	Sep 30 2009	Vegetable, root, subgroup 1A	09675	19	1
			Avocado, Papaya, Black sapote, Canistel, Mamey sapote, Mango Sapodilla, Star apple	09607 08826	8	8
			Berry, low growing, subgroup 13-07G except cranberry	---	7	1
			Bushberry subgroup 13-07B except lingonberry and lowbush blueberry	---	12	1
			Caneberry subgroup 13-07A	---	1	1
				Totals	173	45

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscicide, P=plant growth regulator, R=rodenticide

ATTACHMENT 4 – Continued

Pest Control Agent / Type*		Date	Commodity or Crop Group	PR#	No. of Uses	No. of Tolerances
Pyriproxyfen	I	Oct 28 2009	Vegetable, leafy, except brassica, group 4	08975	29	1
			Fruit, small, vine climbing, except grape, subgroup 13-07E	09359	6	1
			Vegetable, leaves of root and tuber, group 2		16	1
			Vegetable, foliage of legume, group 7		3	2
			Artichoke, globe		1	1
			Asparagus		1	1
			Watercress		1	1
Hexythiazox	I	Dec 02 2009	Potato	08829	1	1
Novaluron	I	Dec 09 2009	Brassica, leafy greens, subgroup 5B	08420 08421	8	1
			Bushberry subgroup 13-07B	09052	19	1
			Fruit, stone, group 12, except cherry Cherry	09047 09048 09347	11	3
Clothianidin	I	Dec 09 2009	Berry, low growing, except strawberry, subgroup 13-07H	09399	8	1
			Peach	08544	2	1
			Vegetable, tuberous and corm, subgroup 1C	09065	17	1
Prometryn	H	Dec 18 2009	Carrot	01682	1	1
			Celeriac	03567	1	2
			Cilantro (coriander) leaves	08996	1	2
			Parsley	03618 05160	1	2
			Okra	08575	1	1
			Leaf petioles subgroup 4B	02480 03217 06590	7	1
Dinotefuran	I	Dec 18 2009	Brassica, leafy greens, subgroup 5B	08626 08628 08629	8	1
			Turnip greens	08627	1	1
Fenarimol	F	Dec 23 2009	Hops	06940	1	1
Bifenazate	I	Dec 23 2009	Bean, dry seed	08929	22	1
Totals					167	30

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscide, P=plant growth regulator, R=rodenticide

ATTACHMENT 4 – Continued

Permanent Tolerances for Indirect or Inadvertent Residues

Pest Control Agent / Type*	Date	Commodity or Crop Group	PR#	No. of Uses	No. of Tolerances	
Endothall	H	Dec 20 2009	Vegetable, root and tuber, group 1	09762	37	2
			Vegetable, leaves of root and tuber, group 2		16	1
			Vegetable, bulb, group 3-07	09763	26	1
			Vegetable, leafy, except brassica, group 4	09757	29	1
			Brassica, head and stem subgroup 5A	09764	11	1
			Brassica, leafy, subgroup 5B		8	1
			Vegetable, legume, edible podded, subgroup 6A	09765	12	1
			Pea and bean, succulent shelled, subgroup 6B		12	1
			Pea and bean, dried shelled, except soybean, subgroup 6C		24	1
			Vegetable, foliage of legume, group 7	09766	3	1
			Vegetable, fruiting, group 8 Okra		10	4
			Vegetable, cucurbit, group 9		09755	14
			Fruit, citrus, group 10	09759	14	2
			Fruit, pome, group 11	09767	7	2
			Fruit, stone, group 12	09769	11	1
			Caneberry subgroup 13-07A	09770	5	1
			Bushberry subgroup 13-07B		19	1
			Nut, tree, group 14 Pistachio	09771	13	2
			Grain, cereal, group 15, except corn Corn, field Corn, pop Corn, sweet	09761 09768	14	6
			Grain, cereal, forage, fodder, and straw, group 16		0	1
			Grain, aspirated fractions		0	1
			Grass, forage, fodder and hay, group 17	09760	3	2
			Animal feed, nongrass, group 18	09756	11	2
			Herbs and spices group 19	---	70	1
			Grape	09754	1	2
			Mint	09758	1	2
			Soybean	---	1	2
			Cattle	---	---	4
			Egg	---	---	1
			Feed commodities not otherwise listed	---	---	1
			Food commodities not otherwise listed	---	---	1
			Goat	---	---	4
			Hog	---	---	4
			Milk	---	---	1
			Poultry	---	---	4
			Sheep	---	---	4
Totals				372	68	

*F=fungicide, H=herbicide, I=insecticide/acaricide, M=molluscide, P=plant growth regulator, R=rodenticide

ATTACHMENT 5 – PENDING FOOD PROGRAM SUBMISSIONS
Final Report in Progress (All Data Received at HQ)

<u>Product</u>	<u>Crop(s)</u>
2,4-D	Strawberry (Annual)
Acequinocyl	Cherry, Cucumber (GH & Field)
Acetamiprid	Asparagus
Anthraquinone	Corn (Field)
Azoxystrobin	Bushberry Subgroup, Caneberry Subgroup, Low growing berry subgroup, Onion (Bulb) Subgroup, Onion(Green) Subgroup, Small fruit vine climbing subgroup, except fuzzy kiwifruit
Boscalid	Garlic, Onion (Dry Bulb), Turnip Greens
Boscalid + Pyraclostrobin	Celeriac
Bromoxynil	Millet
Chlorfenapyr	Vegetable Transplants
Clethodim	Camelina
Cyprodinil	Bushberry Subgroup, Caneberry Subgroup, Low growing berry subgroup, Onion (Bulb) Subgroup, Onion(Green) Subgroup, Small fruit vine climbing subgroup, except fuzzy kiwifruit
Cyprodinil + Fludioxonil	Pepper (Bell & Non-Bell)
Ethafuralin	Kenaf
Famoxadone + Cymoxanil	Bean (Lima)
Fenamidone	Onion (Bulb) Subgroup, Onion(Green) Subgroup
Fipronil	Popcorn
Fluazifop-p-butyl	Sweet Potato
Fludioxonil	Blueberry
Flumioxazin	Artichoke
Fluopicolide	Arracacha
Glyphosate	Horseradish, Lettuce (Head & Leaf), Mustard Greens, Teff
Indoxacarb	Small fruit vine climbing subgroup, except fuzzy kiwifruit, Low growing berry subgroup, except strawberry
Lambda-cyhalothrin	Onion (Bulb) subgroup, Millet, Pearl, Tea
Mancozeb	Blueberry, Guava, Lychee
Mesotrione	Currant (Red)
Metribuzin	Tanier

ATTACHMENT 5 Continued

NAA	Almond, Grapefruit, Plum, Walnut
Pendimethalin	Mustard Greens
Pronamide	Grasses (Orchard, Pasture, Seed Crop), Lettuce (Leaf), Safflower
Propiconazole	Citrus (Post Harvest)
Pyrimethanil	Low growing berry subgroup, Onion (Bulb) subgroup, Onion (Green) subgroup, Small fruit vine climbing subgroup, except fuzzy kiwifruit
Quizalofop	Mustard (Seed)
Rimsulfuron	Blueberry, Caneberry
s-Metolachlor	Cilantro
Spinosad	Caneberry
Spirodiclofen	Guava, Sugar Apple
Spirotetramat	Watercress
Sulfentrazone	Turnip (Roots & Tops)
Thiacloprid	Blueberry
Thiophanate-methyl	Pepper (GH & Field)
Zeta-cypermethrin	Tea

ATTACHMENT 5 – PENDING FOOD PROGRAM SUBMISSIONS
Final Report Complete (Submission Pending)

<u>Product</u>	<u>Crop(s)</u>
2,4-D	Lentil
Abamectin	Bean (Aduzuki, Dry), Chives, Onion (Dry Bulb)
Acequinocyl	Bean (Succulent Shelled), Cantaloupe, Caneberry
AVG	Cherry, Peach, Plum
Boscalid + Pyraclostrobin	Artichoke, Persimmon
Bromoxynil	Leek
Captan	Ginseng
Clomazone	Broccoli, Rhubarb
DCPA	Carrot, Prickly Pear Cactus
Dinotefuran	Onion (Green), Watercress
Diquat	Sesame, Watercress
Diuron	Apricot, Cherry, Plum
Emamectin Benzoate	Cucumber
Ethephon	Sweet Potato, Tomato
Ethofumesate	Cilantro, Dill
Famoxadone + Cymoxanil	Greens (Mustard)
Fenamidone	Ginseng
Fenhexamid	Kiwifruit
Fipronil	Plantain
Flucarbazone-sodium	Grasses (Seed Crop)
Fludioxonil	Ginseng
Flumioxazin	Cabbage, Prickly Pear Cactus
Fluroxypyr	Mint
Flutolanil	Radish
Imazalil	Mushroom
Indoxacarb	Bean (Dry, Snap)
Lambda-cyhalothrin	Asparagus (Fern), Carrot, Radish, Rutabaga, Turnip (Roots)
Linuron	Dill
Metaldehyde	Celery, Grasses (Seed Crop), Mint, Rhubarb, Swiss Chard, Taro (Wet Land)

ATTACHMENT 5 Continued

Methiocarb	Artichoke
Methoxyfenozide	Radish
Metribuzin	Pea (Succulent)
Napropamide	Mint
Oxyfluorfen	Onion (Green), Strawberry (Transplants), Tomato
Paraquat	Broccoli
Pendimethalin	Lettuce (Leaf)
Prometryn	Bean (Snap)
Pyrimethanil	Ginseng
Sethoxydim	Grasses
s-Metolachlor/Metolachlor	Cilantro, Lettuce (Leaf), Spinach
Spirodiclofen	Lychee, Okra, Pepper (Bell & Non-Bell)
Spirotetramat	Watercress
Sulfentrazone	Blueberry, Rhubarb, Wheat
Tebuconazole	Apricot, Nectarine, Peach (all post harvest)
Terbacil	Peach, Strawberry (Annual)
Thidiazuron	Grape
Thifensulfuron + Rimsulfuron	Chicory (Roots)
Zeta-cypermethrin	Artichoke, Barley
Zinc Phosphide	Grasses (Seed Crop)

ATTACHMENT 6 – 2009 ORNAMENTAL HORTICULTURE PROGRAM

FIELD COOPERATORS

Cooperators

NORTHCENTRAL REGION

Dr. L. Canas	OH
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Dr. M. Hausbeck	MI
Dr. W. Kirk	MI
Dr. H. Mathers	OH
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WESTERN REGION

Dr. A. Chase	CA
Dr. G. Chastagner	OR
Dr. J. DeFrancesco	OR
Dr. A. Hara	HI
Dr. P. Kaspari	AK
Dr. J. Klett	CO
Dr. H. Lieth	CA
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USDA-ARS

Dr. E. Beste	MD
Dr. R. Boydston	WA
Mr. B. Fraelich	GA
Mr. R. Frank	MD
Mr. T. Freiburger	NJ
Dr. N. Grunwald	OR
Dr. J. Harvey	WA
Dr. M. Reding	OH
Mr. P. Wade	SC

ATTACHMENT 7 – 2009 ORNAMENTAL HORTICULTURE PROGRAM

RESEARCH ACTIVITIES

Discipline	Project Title	Number of Products	Number of Crops	Number of Trials
Plant Pathology	Acibenzolar Crop Safety *	1	27	35
	Bacterial Efficacy *	26	7	101
	Downy Mildew Efficacy *	11	5	46
	Fluopicolide (V-10161) Crop Safety *	1	18	48
	Phytophthora Efficacy	24	4	58
Weed Science	2007 Sedge Materials Crop Safety	3	25	69
	2008/2009 Crop Safety Project for Over the Top Applications *	4	101	326
	Broadleaf Weed & Sedge Management Crop Safety *	2	52	68
	Early Post Emergent Efficacy for Broadleaved Weeds *	9	0	33
	F6875 Crop Safety	2	11	17
	Glyphosate Crop Safety	1	1	1
	Halosulfuron Plant Back Crop Safety	1	1	1
	Liverwort Efficacy	1	0	8
	Mesotrione Crop Safety	2	15	18
	Oxyfluorfen + Prodiamine Crop Safety	1	15	21
	Sulfosulfuron Crop Safety *	1	73	111
	Trifluralin + Isoxaben + Oxyfluorfen Crop Safety	1	2	3
	Trifluralin + Isoxaben Crop Safety	1	34	46
	V-10142 Crop Safety	1	1	1
Entomology	Borer & Beetle Efficacy *	16	9	64
	Leafminer Efficacy	4	2	10
	Mealybug Efficacy	7	2	10
	Q-Biotype Whitefly Efficacy	9	2	16
	Scale Efficacy *	17	7	90
	Spirotetramat Crop Safety *	1	25	45
	Thrips Efficacy *	14	4	26
	White Grub & Root Weevil Efficacy	3	3	7
	Mollusc Efficacy	3	0	3
PGRs	Herbaceous Shelf Life *	7	2	19
	Woody Ornamental Branching *	2	3	6

* High Priority Projects

For a detailed list of research activities visit ir4.rutgers.edu.

ATTACHMENT 8 – SUMMARIES OF 2009 ORNAMENTAL HORTICULTURE RESEARCH

Azoxystrobin Crop Safety

Azoxystrobin was registered as Heritage in the United States in 1997 as a turf fungicide. In April 2003, this label was updated to include applications for certain diseases on ornamental crops. The label contains an extensive list of ornamental horticulture plants where Heritage can be used without causing phytotoxicity. From 1999 to 2002, the IR-4 Project conducted 100 trials on 75 ornamental plant species examining phytotoxicity related to Heritage applications. In these trials, only 2 crops (*Pseudotsuga menziesii* and *Tsuga heterophylla*) exhibited noticeable, significant injury and that was a slight height reduction and stem swelling at the 2X and 4X rates applied as drench to emerged seedlings. Based on this information, it is recommended that 53 plants in the IR-4 trials be added to the list of tolerant plants with the precautionary statements in the Plant Safety and Tolerant Ornamentals Plant sections of the current Heritage 50WG label.

Clopyralid Crop Safety

Lontrel (clopyralid) was initially registered in 1998 for ornamental horticulture uses. This initial label contained an extensive list of ornamental horticulture plants where Lontrel could be used without causing phytotoxicity. From 1985 to 2002, IR-4 examined 66 ornamental plant species for phytotoxicity related to Lontrel applications. Of the researched crops, only two crops (*Heemerocallis* sp. and *Ilex cornuta*) can be added to the label at this time based on the data provided here.

Dimethenamid-p Crop Safety

During 2007 and 2008, IR-4 completed 160 trials on Tower EC (dimethenamid-p). The data contained in this report was generated to register uses of dimethenamid on and around ornamental horticulture plants with over-the-top applications. The dimethenamid rates in the 2007 testing program were 0.97, 1.94 and 3.88 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. Tower EC had been applied to 59 plant genera or species. Of these, 22 exhibited no or minimal transient injury after application at all three rates. Two crops exhibited no phytotoxicity at 0.97 and 1.94 lb ai per acre, but did have some injury at 3.88 lb ai per acre. No crops exhibited significant phytotoxicity at even the lowest rate.

Dimethenamid-p + Pendimethalin Crop Safety

During 2007 and 2008, IR-4 completed 246 trials on Freehand G (BAS 659 G; dimethenamid-p + pendimethalin). The data contained in this report was generated to register uses of dimethenamid on and around ornamental horticulture plants with over-the-top applications. The dimethenamid rates in this testing program were 2.65, 5.3 and 10.6 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. Freehand G had been applied to 88 plant genera or species. Of these, 30 exhibited no or minimal transient injury after application at all three rates. Nine crops exhibited no phytotoxicity at 2.65 and 5.3 lb ai per acre, but did have some injury at 10.6 lb ai per acre: *Acer rubrum*, *Campanula* sp., *Cotoneaster* sp., *Heuchera* sp., *Ligustrum* sp., *Nepeta x faasseni*, *Phlox subulata*, *Veronica spicata*, and *Vinca* sp. Nine crops exhibited significant phytotoxicity at even the lowest rate: *Amsonia hubrichtii*, *Aquilegia* sp., *Calamagrostis acutiflora*, *Coreopsis auriculata*, *Festuca ovina glauca*, *Impatiens* sp. (New Guinea Hybrids), *Lamium galeobdolon*, *Phlox paniculata*, and *Scabiosa* sp.

EXC3898 Crop Safety

During 2008, IR-4 completed 97 trials on EXC3898 (mesotrione + prodiamine + s-metolachlor). The data contained in this report was generated to register uses of EXC3898 on and around ornamental horticulture plants with over-the-top applications. The mesotrione rates were 2.1, 4.2 and 6.3 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 3X rates. EXC3898 had been applied to 39 plant genera or species. Of these, five exhibited no or minimal transient injury after application at all three rates. Twenty crops exhibited significant phytotoxicity at even the lowest rate: *Buddleia davidii*, *Dianthus gratianopolitanus*, *Echinacea purpurea*, *Hydrangea quercifolia*, *Ilex* sp., *Lagerstroemia indica*, *Liriope* sp., *Ophiopogon* sp.,

ATTACHMENT 8 Continued

Phlox paniculata, *Phlox subulata*, *Picea sp.*, *Pseudotsuga menziesii*, *Rosa sp.*, *Salvia sylvestris*, *Spiraea sp.*, *Taxus sp.*, *Thuja occidentalis*, *Veronica sp.*, *Viburnum sp.*, and *Vinca sp.*

F6875 Crop Safety

Since 2007, IR-4 has completed 175 trials with products containing sulfentrazone + proflumicarb (F6875 0.3G and F6875 4SC) on 76 crops. The data contained in this report was generated to register uses of sulfentrazone + proflumicarb formulation on and around ornamental horticulture plants with over-the-top applications. The rates tested were 0.375, 0.75 and 1.5 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. F6875 4SC had been applied to 14 crops, but no conclusions can be drawn from this minimal set of data. F6875 0.3G had been applied to 62 plant genera or species. Of these, 14 exhibited no or minimal transient injury after application at all three rates. Nine crops (*Buddleia davidii*, *Echinacea sp.*, *Hemerocallis sp.*, *Hosta sp.*, *Iris sp.*, *Lobularia maritima*, *Ophiopogon sp.*, *Phlox paniculata*, and *Phlox subulata*) exhibited phytotoxicity at even the lowest rate.

Flumioxazin Crop Safety

During 2008, IR-4 completed 95 trials on Broadstar 0.25G VC1604 (flumioxazin). The data contained in this report was generated to confirm register uses of flumioxazin on and around ornamental horticulture plants with over-the-top applications. The flumioxazin rates in the 2008 testing program were 0.375, 0.75, and 1.5 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. Broadstar 0.25G VC1604 had been applied to 51 plant genera or species. Of these, 43 exhibited no or minimal transient injury after application at all three rates. No crops exhibited significant phytotoxicity at even the lowest rate, but 8 species or genera need additional information to clarify crop response.

Imzasulfuron Crop Safety

From 2006 to 2008, IR-4 conducted 216 trials with V-10142 0.5G and V-10142 75WDG (imzasulfuron) on over 50 crops. This research was undertaken to determine the level of crop safety these formulations have when used as over-the-top applications. The imzasulfuron rates were 0.5, 1.0 and 2.0 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. Of the tested crop and formulations, only 14 exhibited no or minimal transient injury after application at all three rates. Twelve species for V-10142 0.5G and 19 for V-10142 75WDG exhibited phytotoxicity at even the 0.5 lb ai per acre rate.

Mesotrione Crop Safety

During 2007 and 2008, IR-4 completed 113 trials on Mesotrione SC. The data contained in this report was generated to register uses of mesotrione on and around ornamental horticulture plants with over-the-top applications. The mesotrione rates were 0.187, 0.25 and 0.37 pounds active ingredient per acre (lb ai per A) as the 1X, 1.5X and 2X rates. Mesotrione SC had been applied to 39 plant genera or species. Of these, five exhibited no or minimal transient injury after application at all three rates. Twenty crops exhibited significant phytotoxicity at even the lowest rate: *Buddleia davidii*, *Dianthus gratianopolitanus*, *Echinacea purpurea*, *Hydrangea quercifolia*, *Ilex sp.*, *Lagerstroemia indica*, *Liriope sp.*, *Ophiopogon sp.*, *Phlox paniculata*, *Phlox subulata*, *Picea sp.*, *Pseudotsuga menziesii*, *Rosa sp.*, *Salvia sylvestris*, *Spiraea sp.*, *Taxus sp.*, *Thuja occidentalis*, *Veronica sp.*, *Viburnum sp.*, and *Vinca sp.*

Oxyfluorfen Crop Safety

Oxyfluorfen (Goal 2XL) has been registered in the United States since 1979 (Goal 2E) for uses in and around ornamental plants in production nurseries and in landscapes. The label recommends over-the-top or directed spray to conifers, with a precaution not to make over-the-top application during periods of active conifer growth. It is registered for field-grown deciduous trees used only as a directed spray to soil beneath the trees. Between 1976 and 1997, the IR-4 Project conducted over 905 trials using two granular formulations (Goal 1G, Goal 2G), a liquid formulation (Goal 2E) and two wettable powder formulations

ATTACHMENT 8 Continued

(Goal 25WP, Goal 30WP). This report is the first summary across all the available data generated through IR-4.

Thirty-nine plant species or genera exhibited no or minimal, transitory phytotoxicity to over-the-top applications of Goal 1G and Goal 2G formulations. Of these, 8 species are already registered for Goal 2XL. Three species exhibited no phytotoxicity with over-the-top Goal G applications at 1.0 and 2.0 lb ai per acre, but significant phytotoxicity occurred at 4.0 and 8.0 lb ai per acre. Thirteen crops demonstrated significant phytotoxicity at all tested rates of Goal 1G or 2G. Of these crops, two deciduous crops are already registered for Goal 2XL applied only as directed spray. Goal 2E or 25/30WP applied over-the-top exhibited no or minimal negative impact on eight conifers and only three other plant species. Five of these conifers are already registered for Goal 2XL. One species exhibited no phytotoxicity with over-the-top Goal 2E or 25/30WP over-the-top applications at 1.0 or 2.0 lb ai per acre, but significant phytotoxicity occurred at 4.0 and 8.0 lb ai per acre. Twenty-seven crops exhibited significant damage at all tested rates of Goal formulations applied as liquid spray over-the-top. Of these crops, one deciduous species is already registered for Goal 2XL applied only as directed spray.

Pendimethalin Crop Safety

Pendimethalin has been registered in the United States since 1994 for uses in and around ornamental plants in production nurseries and in landscapes. Between 1981 and 2008, the IR-4 Project has conducted over 469 trials using two granular formulation (Corral 2.68G and Pendulum 2G), two liquid formulations (Pendulum AquaCap and Prowl 4E) and a wettable dry granular formulation (Pendulum WDG). This is the first summary across all the available data generated through IR-4.

Seventy plant species or genera exhibited no or minimal, transitory phytotoxicity to over the top applications of Corral 2.68G and Pendulum 2G formulations. Of these, 9 species or genera are not on the current Pendulum 2G label. It is recommended that these be placed on this label.

Thirty seven plant species or genera exhibited no or minimal transitory phytotoxicity to applications of Pendulum AquaCap and Pendulum WDG formulations. All these ornamentals are currently listed on the Pendulum AquaCap label. One species (*Stachys byzantina*) exhibited phytotoxicity at 2 lb ai per acre and higher rates.

Twenty plant species or genera exhibited no or minimal transitory phytotoxicity to applications of Prowl 4E. Of these, one (*Paeonia* sp.) is not currently listed on the label. It is recommended that this ornamental be placed on the current Pendulum 3.3EC label.

Phytophthora Efficacy

From 2003 to 2008, 50 products were tested through the IR-4 Program as drench or foliar applications against nine *Phytophthora* species causing root rots and stem/leaf blights (Table 1). *Phytophthora* species tested included: *P. cactorum*, *P. cinnamomi*, *P. citricola*, *P. cryptogea*, *P. dreschleri*, *P. nicotianae/parasitica*, *P. palmivora*, *P. ramorum*, *P. syringae*, and *P. tropicalis*. Control of *Phytophthora cinnamomi* root rot was achieved primarily with drench applications onto azaleas. When this pathogen was tested on rhododendrons, the data were either inconclusive or the products did not perform as well as on azaleas with the exception of Magellan and Fenamidone. For *Phytophthora dreschleri* root rot, the good to excellent efficacy was achieved with several products including BioPhos, Segway, Stature DM, and Terrazole. For *Phytophthora nicotianae*, consistent efficacy across crops was difficult to achieve, but the best performers included Aliette, Biophos, Fenamidone, Insignia, Segway and Stature DM. The best control of *Phytophthora citricola* blight was achieved with foliar applications of the phosphorus acid generators Aliette, Biophos and Magellan. For *Phytophthora ramorum* blights, Subdue MAXX provided the most consistent control. Fenamidone, Insignia, Segway, Stature and Adorn (V-10161) also provided

ATTACHMENT 8 Continued

good control. For *Phytophthora tropicalis*, the best control was achieved with Stature and Adorn (V-10161).

Sulfentrazone Crop Safety

Since 1996 IR-4 has completed 247 trials with products containing sulfentrazone (Sulfentrazone 0.2G and Sulfentrazone 4F) on 111 crops. The data contained in this report was generated to register uses of sulfentrazone on and around ornamental horticulture plants with over-the-top applications. The sulfentrazone rates in the testing programs were 0.125, 0.25 and 0.5 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. Sulfentrazone 0.2G had been applied to 54 plant genera or species. Of these, 12 exhibited no or minimal transient injury after application at all three rates. One crop exhibited no phytotoxicity at 0.125 and 0.25 lb ai per acre, but did have some injury at 0.5 lb ai per acre. Only 3 crops (*Canna sp.*, *Echinacea purpurea*, and *Hosta sp.*) exhibited phytotoxicity at even the lowest rate. Sulfentrazone 4F has been applied to 57 crops since 1996. Of these only 6 (*Buxus sp.*, *Ilex vomitoria* 'nana', *Juniperus horizontalis*, *Rosa sp.*, *Taxus sp.*, and *Thuja sp.*) exhibited no damage with over the top applications at all tested rates. Seven crops had minimal, transitory damage at the lower rates but some phytotoxicity at the 4X rate and 15 crops exhibited damage at all tested rates.

Thrips Efficacy

For the last 4 years, the IR-4 Ornamental Horticulture Workshop has ranked developing efficacy data on new products to manage thrips as a High Priority Project. Thrips remain an important threat for several reasons: 1) the damage thrips cause to ornamental horticulture plants, decreasing the value of the infested crops; 2) the tospoviruses (tomato spotted wilt, impatiens necrotic ringspot) they can vector; 3) the newly arrived invasive species which impact at least 250 different ornamental horticulture species; and 4) growers lack the ability to rotate among 3 to 4 different modes of actions to effectively manage resistance development in the thrips populations they must control to maintain economic viability. From 2006 through 2009, 55 products representing 46 different active ingredients were tested for thrips management. These products represented both biological and chemical tools. Some products were already registered but more data were needed particularly with the newly invasive thrips species or they were considered standards to measure the level of efficacy achieved with other materials. Other products were in development but have not yet been registered with the EPA. The five thrips species tested in the IR-4 program were Chilli Thrips (*Scirtothrips dorsalis*), Gladiolus Thrips (*Thrips simplex*), Privet Thrips (*Dendothrips ornatus*), Weeping Fig Thrips (*Gynaikothrips uzeli*), and Western Flower Thrips (*Frankliniella occidentalis*).

Whitefly Efficacy

Whiteflies are significant pests of ornamental horticulture crops. Three whiteflies species and biotypes contribute to crop production losses in the United States: greenhouse whitefly (*Trialeurodes vaporariorum*), silverleaf whitefly B biotype (*Bemisia tabaci* B Biotype), and silverleaf whitefly Q biotype (*Bemisia tabaci* Q Biotype). From 2002 through 2009, 66 products or rotational/tank mix treatments comprised of 37 different active ingredients were tested through this screening program. The best products for Q biotype eradication, and those that should be reserved for critical situations, were Judo and Safari. However, Avid, Sanmite, and TriStar also demonstrated effective control and should be utilized routinely as part of the overall management program for *Bemisia* whiteflies. Mycoinsecticides under these testing conditions did not perform as well as anticipated for Q biotype whitefly management.

Woody Plant Branching

Many woody plant species do not branch adequately when small plants are being grown in a container nursery production system. In order to produce a well branched plant that meets desired size specifications, plants are usually pruned frequently, though some still do not branch as much as desired. Developing plant growth regulators that could increase branching is important to provide ornamental nursery growers an

ATTACHMENT 8 Continued

additional tool that they can use to produce more desirable plants. During a conference call with key plant growth regulator researchers, screening a number of products to enhance branching pattern of certain container grown ornamentals became one of the high priority projects for herbicide/plant growth regulators. From 2006 to 2008, 9 products representing 5 different active ingredients were tested for enhanced branching on several container grown woody ornamental species. Some products were already registered for use as plant growth regulators (PGR) on food crops. These products were in development for use on ornamentals but have not yet been registered with the EPA. While a number of container grown ornamental species were tested, only enough experiments were able to be completed on azalea to recommend actions to register for use on this species. Two products (Tiberon 2.8SC and MaxCel) provided sufficient levels of branching in azalea.

ATTACHMENT 9- Biopesticide and Organic Support Program

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Biopesticide Registration Packages Submitted in 2009

<u>Product</u>	<u>Crop</u>	<u>PR Number</u>	<u>TYPE</u>	<u>Registration Type</u>
Acetic acid	All food Crops	0370B	Herbicide	Amendment
<i>Trichoderma hamatum</i> 382	All Food Crop	0049B	Fungicide	Amendment
Bacteriophage of <i>Clavibacter michiganensis</i>	Tomato	0430B	Bacteriacide	Section 3
Tobacco Mild Green Mosaic Tobamovirus	All food Crops	0367B	Herbicide	Section 3
<i>Aspergillus flavus</i> AF36	Corn	0378B	Fungicide	Section 3

ATTACHMENT 9 – Continued

New Uses Supported by the Biopesticide Efficacy Grant Program

<u>Active Ingredient</u>	<u>Crop</u>	<u>PR Number</u>
<i>Bacillus mycoides</i> isolate J	pecans	0541B
<i>Bacillus mycoides</i> isolate J	sugar beet	0107B
<i>Bacillus mycoides</i> isolate J	tomato	0388B
Potassium phosphate	GH tomato	0560B, 0431B
Potassium phosphate	GH pepper	0560B
Potassium phosphate	GH cucumber	0560B
E, E-8, 10-Dodecadienol	apple	0492B, 0498B 0499B

Biopesticide Grant Proposals Funded 2009

Grant Stage—Early

- Longevity and efficacy of the biological fungicide, BW 240, following consecutive challenges and as a preventive treatment in combination and following a standard fungicide drench application against *Pythium ultimu*, *P. aphanidermatum*, and *Phytophthora nicotianae* in bedding plant production.
- Post-harvest management of fungal and termite biodegradation of yellow pine with essential oils.
- Development of a management strategy to control chili thrips on "jalapeno pepper using botanical and biological pesticides.
- Application of a new organic product (CG100) to control powdery mildew in grapevine in California

Grant Stage—Advanced

- Efficacy evaluation of a combination biopesticide "AZERA" for managing multiple insect pests in organic vegetable production.
- Evaluating biopesticides for control of black rot and Phomopsis in organic grape production.
- Evaluation of dormant applications for phosphate fungicide and the bark penetrating adjuvant Penra Bark for control of early season apple scab
- Evaluation of the microbial biopesticide Taegro to manage the blossom blight phase of fire blight on apple.
- Managing western flower thrips with biopesticides in bedding plant production.
- Evaluation of Bioten for management of Phytophthora crown and root rot on pepper.

ATTACHMENT 9 – Continued

- Integration of biofungicides and conventional fungicides for management of peach brown rot.
- Efficacy of biofungicide products at the advanced stage of development for foliar diseases in organically-produced tomato.
- Application of Regalia SC (Milsana) to control common diseases in strawberry and almond in CA .
- Managing *Phytophthora capsici* on pepper & summer squash with combinations of Bioten and conventional fungicides.
- Evaluation of SPLAT-MAT with Spinosad and Methyl Eugenol or Cue-Lure for suppression/eradication of oriental and melon fruit flies (Diptera: Tephritidae).
- Efficacy of post-harvest biofungicide treatment for control of *Rhizoctonia* root disease of St. Augustine grass sod.
- Evaluation of biopesticides for control of bacterial wilt on tomato.
- Mating disruption of the currant cane borer *Synanthedon tipuliformis* in Connecticut.
- Use of gibberellic acid (GA3) to increase yield of the "Hass" avocado: demonstration of a dose response.
- Toward the development of a microbial control strategy for Varroa mite.
- Evaluation of biopesticides for suppression of various bacterial diseases in tomato, pepper and cucumber under field conditions.
- Efficacy of biofungicide products at the advanced stage of development for downy mildew in organically-produced cucumber
- Efficacy of a novel biopesticide on cucumber beetles for organic systems.
- Biocontrol of grape powdery mildew: evaluating strategies to improve the efficacy of Actinovate (*Streptomyces lydicus* WYEC108) in integrated pest management.

Grant Stage—Demonstration

- Demonstration of efficacy of Contans in soybeans and dry beans.
- Managing rotation of biopesticides to control onion thrips
- Efficacy of biofungicide products at the demonstration state of development for foliar diseases in organically-produced tomato.
- A biological based tactic for control of blueberry maggot on wild blueberry

ATTACHMENT 9 – Continued

- Efficacy of biofungicide products at the demonstration stage of development for downy mildew in organically-produced cucumber.
- Biopesticide products effective for powdery mildew in pumpkin evaluated in integrated programs on other cucurbit crop types.
- Foliar disease management in organic blueberries using fish oil derivatives and inducers of host resistance.
- Use of bio-nematicides as alternatives to soil fumigants for nematode control in Florida tomato crop.
- Improving the efficacy of Bio-Save for control of Rhizopus soft rot of sweetpotato.
- Demonstrating the efficacy of biofungicides within a management system for powdery mildew on cantaloupe.

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