

## **THE IR-4 PEST CONTROL PRODUCT REGISTRATION PROCESS**

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### **ABSTRACT**

The National IR4 Project assists pest control product registrants develop new and expanded registrations for minor and specialty crop uses by undertaking a series of activities that are renewed every year. The IR4 process is described with an update on current projects being researched for tomato disease control.

### **DISCUSSION**

The National IR4 Project is headquartered at Rutgers University with regional offices at The University of Florida, University of California at Davis, Michigan State University and Cornell University at Geneva. It operates in every state with the assistance of IR4 state liaison representatives usually associated with state universities. The USDA/ARS also participates in each of the four IR4 regions. The IR4 partnership encompasses a network of scientists and consultants in every state, the agriculture chemistry industry, the EPA and specialty growers and grower groups.

The IR4 registration process begins with the submission of a Project Clearance Request (PCR) form. This request may be submitted as a hard copy or electronically and provides the basis for all future activities. It documents the pest control product, specialty crop, pest problem and proposed use pattern. All requests should be accompanied with efficacy/crop safety data and can be submitted by anyone except the product registrant/owner.

The PCR is reviewed at national HQ to be sure that it is valid and given a number which is used to track it through the process. There are over 9,000 requests in the system. Each PCR is sent to the registrant for comments on its future as a possible IR4 project. Many requests are handled by the registrant and given a category 05. Some are not acceptable (cat. 11) while others may need more information such as efficacy/crop safety data before they are approved (cat. 06). Most, however, are found to be acceptable (cat. 03) and registrants encourage IR4 to proceed with research.

Every year IR4 holds a three day food use workshop to identify PCR's that will be researched the following year. Over 100 scientists from across the country meet each day to voice support for their particular project need. Each pest management discipline (weeds, diseases, insects/mite) meet on separate days to identify about 15 priority A projects that will be funded for future research. Priority B projects are also identified for possible upgrades later in the year. Additional Projects are considered when proposals are submitted after the workshop. Every year, 2 or 3 tomato projects are identified for research. A tomato disease control project is identified for research every other year, on average.

A month later IR4 Coordinators and Study Directors meet at National Headquarters to develop a work plan for the following year. More than 100 Projects previously identified are addressed at this National Research Planning Meeting. Field Research sites are assigned according to the EPA regional requirements. Laboratory assignments are made so that one site will analyze all samples from a given project.

One Study Director is assigned to each project and a research protocol is prepared and reviewed by the specified Field and Laboratory Research Director. Protocols are signed January-March and test material is ordered so work can start as soon as possible. Each Project may require data from 3 to 15 sites according to the nature of the new use.

Field and Laboratory data are compiled according to good laboratory practices and submitted to the Study Director. All data is assembled into a petition package and reviewed by the registrant before submission to EPA for a pest control product/crop residue tolerance. The IR4 Project tries to complete research from protocol signature date until EPA submission in 30 months. See Figure 1.

The IR4 Project also supports research with Biopesticides to secure new and expanded registrations for minor and specialty uses. These Projects come to IR4 each year in requests that are part of a grant proposal to research Biopesticides for efficacy, crop safety or limited environmental data for EPA. Product residue data is not required. This year 113 proposals were submitted to IR4 for funding. Nine proposals requested funds to research Biopesticides for control of tomato diseases and nematodes.

There are at least 20 tomato disease project requests listed in the IR4 data base at [www.ir4.rutgers.edu](http://www.ir4.rutgers.edu). The current status of several project requests are presented in Table 1. IR4 developed residue data that allowed the expansion of the Decree label to greenhouse tomato and Amistar, Cabrio, Endura to field tomato. Projects that will lead to Switch-greenhouse and Captan- greenhouse transplant and Topsin-M-field tomato labels are complete and will be submitted to EPA. More efficacy and crop safety data need to be collected on specific uses for traditional materials: V-10135, V-10161, Tanos, Quintec, Serenade, Captan and the Biopesticides: Agriphage, Endorse, Kasugamycin, Phosphonic acid, Vacciplant before they can be considered for registration.

**Table 1. IR-4 PRODUCT REQUESTS FOR CONTROL OF TOMATO DISEASES**

<i>Product</i>	<i>Disease</i>	<i>Status</i>
AGRIPHAGE	Bacterial canker	need greenhouse efficacy
AMISTAR	Foliar diseases	Labeled for field use
CABRIO	Foliar diseases	Labeled for field use
CAPTAN	Rhizoctonia, Pythium	GH transplant complete
CAPTAN	P.capsici	need efficacy
DECREE	Botrytis	Labeled for greenhouse
ENDURA	Botrytis, early blight	Labeled for field
ENDORSE	Botrytis, powdery mildew	need greenhouse efficacy
KASUGAMYCIN	Bacterial diseases	need efficacy
MILSANA	Botrytis, powdery mildew	Labeled
PHOSPHONIC ACID	Bacterial diseases	need efficacy
QUINTEC	Powdery mildew	need crop safety
SERENADE	Bacterial diseases	need efficacy
SWITCH	Botrytis, powdery mildew	Greenhouse use complete
TANOS	Bacterial canker	need efficacy
TOPSIN-M	Foliar diseases	GH and field use complete
V-10135	Botrytis, Sclerotinia	need efficacy
V-10161	P.capsici	need efficacy
VACCIPLANT	Bacterial diseases	need efficacy