IR-4 Assists Hawaii Area-Wide Fruit Fly Program

Tephritid fruit flies are serious agricultural pests that scientists throughout the world have struggled to control for many years. Much success has been recently achieved using “attract and kill” systems. These systems use a chemical attractant and toxicant combination which varies depending upon the target fruit fly species. The fruit flies are attracted to a trap where they become exposed to a small amount of toxicant. Significant levels of control, and even eradication under certain conditions, are possible. Attract and kill systems have the potential to control fruit fly pests while reducing pesticide exposure to applicators, consumers, and the environment.

In Hawaii, the Area-Wide Fruit Fly Program (http://www.extento.hawaii.edu/fruitfly/) focuses on suppression rather than eradication. Fruit fly eradication in Hawaii is difficult because of the large areas involved, the numerous alternate hosts (in residential and non-agricultural areas), the high costs involved to achieve and sustain eradication, and is controversial because of potential adverse environmental impacts to Hawaiian ecosystems. The University of Hawaii-Cooperative Extension Service, the United States Department of Agriculture-Agricultural Research Service, and the Hawaii State Department of Agriculture have collaborated on local and area-wide fruit fly suppression in production areas using various attract and kill systems.

Initial results have been very promising on several important crops, having reduced broadcast applications of organophosphate insecticides by 40 to 100%.

The IR-4 Project is assisting the Hawaiian effort by drawing upon our experience in insecticide registration. Novel attract and kill systems can be developed by researchers and can be proven to be effective in demonstration trials, yet the benefits of these technologies cannot be realized unless the products can be registered by the U.S. Environmental Protection Agency (EPA). Only then can they be widely utilized by growers.

IR-4 has had preliminary meetings with EPA to discuss registration issues. Several of the attractants tested in the attract and kill systems have not been registered in the United States. EPA has confirmed that the attractants must become registered for these systems to be used by growers. Additionally, some of the toxicants used in the Hawaiian research will prove difficult to register in the current regulatory climate. Other toxicants, more easily registered by EPA for these uses, have been suggested to the researchers for testing. This work is on-going. IR-4 will continue to be a partner in the Hawaiian Fruit Fly Suppression Program and is committed to the development of safe, environmentally sound control techniques that growers can actually use.

Article by Keith Dorschner and Mike Kawate

Fungicide News

Azoxyostrobin on Oil Seed Crops

An EPA Memo dated June 14, 2002 discussed the establishment of the Oilseed Crop Group 20, and suggested that until the Federal Register Notice was issued to establish the Oilseed Crop Group 20, tolerances for the representative commodities and all members of this group would need to be requested individually for each crop. The representative commodities for this crop group are rapeseed (canola varieties only) and sunflower, seed. Members of this crop group include rapeseed, seed; Indian rapeseed; Indian mustard, seed; field mustard, seed; black mustard, seed; flax, seed; sunflower, seed; safflower, seed; and crambe, seed.

IR-4 received a request for a residue study for Azoxyostrobin on Safflower, and it was scheduled for conducting 2003 field trials. Based on the fact that Azoxyostrobin has been registered for canola, and the registrant has adequate residue data for a national sunflower tolerance, we decided to defer the Azoxyostrobin/Safflower residue study scheduled for 2003 and instead submit a petition using the sunflower data to propose tolerances on sunflower, safflower and other individual crops in the proposed Crop Group 20. This should save a lot time and money on the residue studies and additional registrations for these minor crops.

Phytophthora capsici Discussion Session at the Cucurbitaceae Conference

Phytophthora capsici has been an important and widespread pathogen of cucurbits and solanaceous crops. It causes Phytophthora blight and fruit rot. The lesions develop on different crop portions and in various crop growth stages. Severe infection will weaken and even kill the plants. Sometimes the symptoms do not show up until the post-harvest stage or even on the store shelves.

Currently there are few effective fungicides available for the growers. There is an urgent need for registering new efficacious materials to minimize the development of fungicide resistance in P. capsici and to prevent widespread disease control failure. Researchers from different land grant universities have studied the pathology of the pathogens, the susceptibility of the vegetable crops to the pathogens, and the effectiveness of the potential fungicides on different crops.

To bring the researchers together and share information and ideas, Coordinator of IR-4 fungicide working group, Dr.

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