Working Together: US and Canadian Weed Scientists

As part of IR-4's efforts in Pesticide Registration Harmonization between Canada and United States, the IR-4 Project would also like to encourage weed scientists from Canada to cooperate in our ongoing Herbicide Screening Program on Minor Crops. This screening program was initiated in cooperation with the WSSA Herbicide for Minor Crop Uses Committee. In support of this effort, IR-4 is requesting scientist provide crop tolerance and efficacy data. IR-4 has been working with Canada on a number of residue projects and have used Canadian residue data to support a number tolerance petitions in the United States.

IR-4 has already received herbicide efficacy and crop safety data for numerous vegetable crops from Dr. John O'Sullivan, weed scientist at the Department of Plant Agriculture, University of Guelph, Simcoe, Ontario, Canada. These data have been summarized and are included in the IR-4 efficacy database. The objective of John's research is to examine herbicides used in major field crops and new experimental herbicides released by the chemical industry, on a wide range of vegetable crops in field trials. These experiments provide an indication of the spectrum of weeds controlled and crop safety. The results from these studies help substantially in the development of practical weed control measures for vegetable growers, especially for vegetable crops grown on a relatively small acreage. His studies emphasize integrated weed management that effectively control weeds for a wide range of vegetable crops with emphasis on reduced inputs for weed control. Finally, these studies provide the chemical company representatives with information regarding crop injury under various conditions.

The weed management program at the University of Guelph has made great effort to identify cost effective, reliable, and safe weed control recommendations for vegetable growers. The results of these efforts should provide effective weed control and reduce the need for labor for weeding and producing higher yields in a sustainable production system. The program continues to integrate new herbicide use with current weed control methods. By providing vegetable growers with additional weed control options the program encourages a more sustainable production system by utilizing "reduced risk", environmentally friendly herbicides in combination with other methods of weed control. These studies not only identify tolerance of new vegetable crops to these new herbicides but also identify the potential damage to sensitive crops that may be used in rotation due to persistence of some of these new low-use rate herbicides. These herbicide evaluations are conducted on crops commonly grown in the southern Ontario region which include: Asian vegetables, carrots, cole crops, vine crops (cucumbers, pumpkin and squash), sweet corn, garlic, onions, peppers, spinach, sweet potato and tomato. During the past three years a large number of new minor use registrations have been obtained for the vegetable industry based on research conducted by this program.

The registration of new weed control products is of great significance to vegetable growers. Not only will new weed control products reduce the need for manual labor such as hand hoeing and weeding and reduce the cost of production to the grower, but it will also provide vegetable growers access to newer, safer, reduced risk herbicides. These new herbicides are considered to have an overall lower impact on the environment.

IR-4 is looking forward to receiving more data from Canadian weed scientists regarding weed management in minor crops.

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