

## **IR-4 Program for Registration of Minor-use Pesticides**

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**T**he high expense incurred by agrochemical manufacturers in registering pesticides is not cost-effective for crops grown on a limited acreage. To fill this void, the U.S. government finances the IR-4 program, headquartered at Rutgers University in New Jersey, with regional offices around the country (Michigan State University in the North Central Region). Based on input from growers' organizations and research institutions, candidate projects (pesticide-crop combinations) are prioritized. Researchers then select and conduct projects. The pertinent crop products (grain, meal, oil, forage, etc.) are analyzed for pesticide residues at approved testing laboratories and reports are submitted to the Environmental Protection Agency (EPA), which approves or disapproves registration.

All phases of these projects must be conducted within Good Laboratory Practices (GLP) standards, which are quite rigorous. Designated quality assurance personnel monitor project sites, which are subject to EPA audits. Detailed records are required for every step of the process: field site, condition of the test substance upon arrival, storage conditions, calculation of the amount of product to apply, calibration of weighing and application equipment, product application, crop grown, harvesting, storage and shipment of the harvested crop, and laboratory analysis. The amount of paperwork is not for the faint of heart. However, the effort is justified, especially in North Dakota, where so many alternative crops are grown on a relatively small acreage.

In 1999, after several years of hosting projects conducted by NDSU personnel from Fargo, the Carrington Research Extension Center (CREC) became a certified site for IR-4 projects. An IR-4 coordinator was designated and the first project (sethoxydim on borage) was conducted. Quality assurance personnel from Fargo and Michigan State University visited CREC before and during the field trial and also participated in an EPA audit.

This season has marked the beginning of direct CREC participation in this important program. Suggestions for future projects are always welcome.