

Overview of 2010 Weed Management Trials

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Weed science continues to be an important area of crop pest management research at the Carrington Research Extension Center. The emphasis is testing weed efficacy and crop response with herbicides. The following is a list of weed science trials managed by Center agronomists in 2010 and brief descriptions:

Corn

- Glyphosate: POST weed control and corn yield response was evaluated among selected glyphosate products and tank mixtures with nutritional products or fungicides.
- Kixor (saflufenacil): PRE control of foxtail, common lambsquarters, and wild buckwheat with Sharpen and Integrity tank mixtures with glyphosate were evaluated.
- Nitrogen Rates and Timing of Weed Control: The multi-site study is being conducted to examine the relationship of soil nitrogen (targeted levels of 50, 100, and 150 lb/ac) and timing of weed control (untreated, PRE, and POST at targeted weed heights of 2 to 4 inches and 8 to 12 inches) on corn yield and return-on-investment.

Spring wheat

- Foxtail Control: POST grass herbicides were evaluated for control of green and yellow foxtail and wheat response as part of an annual statewide testing project by NDSU.
- Broadleaf Weed Control with Huskie (pyrasulfotole&mefenpyr safener) and Wolverine (fenoxaprop&bromoxynil&pyrasulfotole&mefenpyr safener): Efficacy of common lambsquarters and pigweed species were evaluated with POST-applied herbicides.
- Wild Oat Control with Rimfire Max: An off-station wheat field in Wells County near Fessenden was used as a testing site for POST control of wild oat with Rimfire Max (mesosulfuron&propoxycarbazone&mefenpyr safener) plus tank mixture with broadleaf herbicides.
- Foxtail Control with New Formulations of Everest: New formulations of Everest (flucarbozone), tank mixed with broadleaf herbicides, were evaluated for control of foxtail.

Dry bean

- POST Control of Weeds: Evaluated control of foxtail, common lambsquarters, and wild buckwheat with various rates and formulations of Basagran (bentazon) and Raptor (imazamox) tank mixtures.

Canola

- Evaluation of Cibus Canola Herbicide Systems: Evaluate herbicide products and rates across a selected group of canola varieties.

Field pea

- Sharpen: Burndown and residual control of common lambsquarters was evaluated with PRE Sharpen and glyphosate tank mixtures that also included Spartan (sulfentrazone).
- POST Control of Weeds: Evaluated control of foxtail and common lambsquarters and pea injury with various rates and formulations of Basagran and Raptor tank mixtures.
- Pre-harvest Desiccant: Valor (flumioxazin) and Sharpen, currently unlabeled herbicides as harvest aids in field pea, were evaluated among standard herbicides.

Soybean

- Glyphosate: POST weed control and soybean yield response was evaluated among selected 'standard' and generic glyphosate formulations and adjuvant tank mixtures.
- Sharpen: Burndown and residual control of winter annuals, common lambsquarters, and wild buckwheat were evaluated with PRE Sharpen plus glyphosate tank mixtures.

Miscellaneous

- Perennial Weed Control in Grassland: Short- and long-term (one-year) control of Canada thistle and absinth wormwood was evaluated with summer and fall application of labeled herbicides including Milestone (aminopyralid) and a DuPont experimental at an off-station site in Sheridan County near Denhoff.
- Herbicide Mode-of-Action: An annual demonstration conducted for training during the Crop Management Field School to show response of eight crops to herbicides representing eight mode-of-action classes.

Research reports for these trials can be read at the following website:

www.ag.ndsu.edu/CarringtonREC/agronomy-1/copy_of_crop-index/Production%20Management