



# Nebraska crop production & pest management information

## Navigation

- Home
- Corn
- Dry Beans
- Forages
- Organic
- Sorghum
- Soybeans
- Wheat
- Bioenergy Crops
- Other Crops
  - Fruits & Vegetables (GAPs)
  - Potato
  - Sugar Beets
- Related Topics
  - Economics & Marketing
  - Pest Management
  - Precision Agriculture
  - Soil Management
  - Tillage/No-Till Systems
  - Variety Testing
  - Genetic Improvement
  - Farm Research
  - Youth
  - Military Resources

## Ask an Expert



Ask UNL experts your Nebraska crop production or crop pest management questions.

[Email this page](#) | [Subscribe](#) | [Print](#) | [RSS](#) | [LikeLike](#)

June 7, 2013

## Tips for Applying Residual Herbicides after Soybean Emergence

Frequent rainfall events throughout most of May in Nebraska have caused a significant delay in soybean planting compared to the five-year average (National Agricultural Statistics Service). USDA estimates that by June 2, 81% of soybeans had been planted in Nebraska, compared to 99% last year. The cool weather and wet soil conditions have disrupted the normal sequence of early season field operations such as herbicide applications. Many soybean fields in Nebraska have been planted this year without receiving preplant and/or preemergence herbicides.

Early season weed control is imperative to maximize soybean yield. Due to wet soil conditions, many soybean growers were not able to apply residual herbicides prior to soybean emergence. A few residual herbicides such as Dual II Magnum, FirstRate, Outlook, Prefix, Intrro, Pursuit, Warrant, and Zidua can be applied after soybean emergence. Some of these herbicides such as FirstRate (only for broadleaf weeds), Pursuit, and Prefix have foliar activity to control small, emerged weeds.

Given most soybeans grown in Nebraska are glyphosate-resistant, glyphosate (Roundup) can be tank-mixed with residual herbicides such as Dual II Magnum, Warrant, or Zidua (herbicides with no foliar activity) to control weeds already emerged at the time of application. It is also possible to tank-mix some other postemergence herbicides such as Cadet, Classic, Cobra, Flexstar GT, Fusion, Fusilade DX, Phoenix, and Ultra Blazer to control emerged weeds. This would add a different mode of action and might effectively delay or control glyphosate-resistant weeds. Tank-mix partners may cause other effects regardless of the application timing. Follow application timing and other restrictions of tank-mix herbicide partners as noted in the herbicide label.

### Treatment Guide

Several important factors should be considered when addressing weed control with residual herbicides applied after soybean emergence:

- crop stage,
- tank mix partner, weed height,
- and carrier options.

Following is more specific information for residual herbicides that can be applied after soybean emergence.

**Dual II Magnum** can be applied at a rate of 1 to 1.33 pints per acre as a postemergence treatment to soybeans from emergence up through the 3rd trifoliate leaf stage. Dual II Magnum will not control emerged weeds so it must



Figure 1. Soybeans in early June in a field near Clay Center. (Photos by Amit Jhala)



Figure 2. Soybeans at unifoliate stage. Some herbicides such as Prefix can be applied at this state.

be applied to a weed-free soil surface or in a tank mixture with products that provide postemergence control of weeds present at the time of application. Do NOT apply Dual II Magnum if S-metolachlor products such as Dual Magnum or Dual II Magnum have already been applied.

**FirstRate** may be applied any time prior to the 50% flowering stage of soybeans. Application prior to full emergence of the first soybean trifoliolate leaf may cause temporary yellowing or chlorosis of soybeans. Tank-mix partners may cause other effects regardless of application timing.

**Pursuit** can be applied early postemergence in soybeans when weeds are actively growing and before they exceed a height of 3 inches. Apply Pursuit before soybean bloom at an application rate of 4 oz per acre. Base application timing on weed size and not crop growth stage. Do NOT tank-mix Pursuit with clomazone-containing herbicides such as Command. Use a crop oil concentrate at 1.25 gallons per 100 gallons of spray solution.

**Prefix** can be applied at 2 to 2.33 pints per acre as a postemergence application from cracking through the 3rd trifoliolate stage of soybeans. Necrotic spotting, leaf crinkling, or curling of soybean leaves may occur following postemergence application, but soybean soon outgrow these effects and develop normally. Prefix alone may control or partially control some emerged broadleaf weeds; however, for broad spectrum control, tank-mix with other herbicides. Add non-ionic surfactant at 0.25% v/v to the final spray volume. Do NOT use crop oil concentrate when applying Prefix postemergence as these spray adjuvants may increase soybean injury.

**Outlook** is a selective residual herbicide for controlling annual broadleaf, grass, and sedge weeds. Emerged weeds will not be controlled and must be controlled with an appropriate postemergence herbicide. Outlook can be applied from emergence to 5th trifoliolate leaf stage. The application rates in a single application are 12 to 18 fl oz per acre on coarse-texture soils and 14 to 21 fl oz per acre on medium-texture or fine-texture soils. This can also be influenced by soil organic matter content. If Outlook is applied in two split applications, maintain a minimum 14 day-interval between applications and do NOT exceed a seasonal total of 24 fl oz per acre.

**Warrant** is an acetochlor-based residual herbicide that can be applied postemergence in soybeans after soybeans are completely emerged, but before they reach R2 (initiation of flowering) growth stage. It can be applied at 1.25 to 2 quarts per acre, depending on soil texture and organic matter content. The optimum timing and rate of application is when soybeans are V2 to V3 stage at 1.5 quarts per acre. Warrant is a residual herbicide, so it must be tank-mixed with a burndown herbicide to control existing weeds.

**Zidua** is a selective rate-dependent residual herbicide for control of annual grasses, broadleaf and sedge weeds. It can be applied to soybean at 1st trifoliolate leaf stage to 3rd trifoliolate leaf stage. Do NOT apply Zidua to soybean from emergence (at cracking) through unifoliolate stage or injury may occur. The early postemergence application rate is in a range of 1 to 3.5 oz per acre, depending on soil texture. Zidua has no foliar activity, so it must be tank-mixed with a burndown herbicide for control of existing weeds. Before applying to soybean, verify with your local seed company (supplier) the selectivity of Zidua on your variety to avoid potential injury.

## Residual Activity

Length and effectiveness of residual activity from in-crop application will vary depending on

- weed species,
- application rate,
- rainfall following application (minimum of 0.5 inches of rainfall within a week of application),
- density of the weed and crop canopy at the time of application, and
- length of subsequent weed germination events.

For more information, see [2013 Guide for Weed Management in Nebraska \(EC 130\)](#) published by the University of Nebraska-Lincoln Extension. Always check herbicide labels before applying in the field.

**Amit Jhala**  
Extension Weed Management Specialist



### YOUR FEEDBACK

Please rate this page:

Comments for this page

### RELATED LINKS

- Pesticide Education
- IANR
- UNL Extension
- Agricultural Research Division
- CASNR

### CONTACTING US

**CropWatch**  
108 Ag. Communications Bldg.  
Lincoln NE 68583-0918  
Phone: (402) 472-7981  
Email: [ljasa1@unl.edu](mailto:ljasa1@unl.edu)  
Published by EdMedia, IANR

### SHARE THIS PAGE

GET A GoURL

