



2022 PPI/PRE Herbicide Options

Planting the 2022 sugarbeet crop is fast approaching. It is highly recommended that you consider using a soil applied preemergence herbicide to control glyphosate resistant weeds such as kochia and waterhemp. Resistant Kochia is spreading rapidly, germinates from April to June, and is very difficult to control after emergence. Additionally, planting after April 20th increases the risk that waterhemp will emerge at a similar time as sugarbeet. Since we cannot apply lay-by chloroacetamide herbicides like Outlook, Warrant, or Dual-Magnum until after the 2-leaf stage, most of the waterhemp & kochia emerged before this time will have escaped control. We can greatly improve weed control and minimize costly rescue treatments by using a soil-applied pre-emergence herbicide at planting. What option you choose depends on what resistant weed(s) you are trying to control. All soil applied options are good for waterhemp but only a high rate of ethofumesate (Nortron or generic) is effective for resistant kochia. All pre-emergence herbicides should be applied with 15 gallons of water and medium to course droplets for adequate coverage. Soil applied herbicide terminology and herbicide options are listed below. Call your Agriculturalist with any further questions and remember to Always Follow Label Directions.

Pre-emergence (PRE): herbicide applied to soil after the crop has been planted but before it has emerged

Pre-Plant Incorporation (PPI): herbicide applied to soil and lightly incorporated (depth of 2" or less). Often applied to soil before the initial spring tillage with ground sprayer or with spray bar mounted to spring tillage equipment. Aerial application can work but can result in greater streaking, coverage gaps, or overlaps.

Herbicide	Rate	Crop Injury Risk	Notes
Ethofumesate	3 – 4.5 pt/A	Low	<ul style="list-style-type: none"> • Good waterhemp control up to 4 weeks • Fair kochia control for non-resistant biotypes but inadequate for resistant kochia • Poor-Fair lambsquarter control • Needs ¼" rain to activate if used as PRE • Quicker activation with PPI application • May reduce cover crop stands
	5 – 7.5pt/A	<ul style="list-style-type: none"> • Low for fine textured soils with high organic matter • Greater risk over 5 pt/A on course texture soils 	<ul style="list-style-type: none"> • Good waterhemp control for 8 – 10 weeks • Minimum of 5pt/A for resistant kochia • Poor-Fair lambsquarter control • Needs ¼" rain to activate if used as PRE • Quicker activation with PPI application • Significant injury to cover crop • Next year's crop should not be a grass
Dual Magnum*	0.5-0.75pt/A	Low	<ul style="list-style-type: none"> • 2 – 3 weeks waterhemp control • Fair lambsquarter control • Poor kochia control • Needs ½" rainfall to activate • Do not recommend PPI application • Safe for cover crops
Dual Magnum* + Ethofumesate	0.5 pt/A DM + 2-3 pt/A Etho	Low	<ul style="list-style-type: none"> • Combines attributes of both herbicides • Provides 3-4 weeks of good Waterhemp control but little Kochia control • Activates with ½" of rainfall • Should only be applied as a PRE • Reduced cover crop injury risk

- Ro-Neet SB is also labeled in sugarbeet. Contact Agriculturalist for more information if considering use.

*Dual Magnum is the only s-metolachlor labeled product for use as PPI or Pre-emerge, must sign indemnity label