

# 2024 Pre-Emerge Herbicide Options



It is highly recommended that you consider using a soil residual herbicide either preplant or preemergence to control glyphosate resistant weeds such as kochia and waterhemp. Resistant kochia germinates from April to June and is very difficult to control after emergence. Planting after April 20<sup>th</sup> increases the risk that waterhemp will emerge at a similar time as sugarbeet. Since we cannot apply chloroacetamide herbicides like Outlook, Warrant, or Dual-Magnum lay-by until after the sugarbeet 2-leaf stage, most of the waterhemp and kochia emerged before this time will have escaped control. A soil residual herbicide at planting will greatly improve weed control and minimize costly Post applied rescue treatments. 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 at least 15 gallons of water and medium to coarse droplets for adequate coverage. 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"> <li>• Good waterhemp control up to 4 weeks</li> <li>• Fair kochia control for non-resistant biotypes but inadequate for resistant kochia</li> <li>• Poor-Fair lambsquarter control</li> <li>• Needs ¼" rain to activate if used as PRE</li> <li>• Quicker activation with PPI application</li> <li>• May reduce cover crop stands</li> </ul>
	5 – 7.5pt/A	<ul style="list-style-type: none"> <li>• Low risk for fine &amp; medium textured soils with &gt;3% organic matter</li> <li>• Greater risk over 5 pt/A on coarse texture soils</li> </ul>	<ul style="list-style-type: none"> <li>• Good waterhemp control for 8 – 10 weeks</li> <li>• Minimum of 6 pt/A for resistant kochia</li> <li>• Poor-Fair lambsquarters control</li> <li>• Needs ¼" rain to activate if used as PRE</li> <li>• Quicker activation with PPI application</li> <li>• Significant injury to cover crop</li> <li>• Next year's crop should not be a grass</li> </ul>
Dual Magnum*	0.75-1.0pt/A	Low	<ul style="list-style-type: none"> <li>• 2 – 3 weeks waterhemp control</li> <li>• Fair lambsquarters control</li> <li>• Poor kochia control</li> <li>• Needs ½" rainfall to activate</li> <li>• Do not recommend PPI application</li> <li>• Safe for cover crops</li> <li>• Use higher rate on medium and fine textured soils with greater than 3% OM</li> <li>• Use 1.0 pt/A if planting after May 15</li> </ul>
Dual Magnum* + Ethofumesate	0.5 – 0.75 pt/A DM + 2 - 3 pt/A Etho	Low	<ul style="list-style-type: none"> <li>• Combines attributes of both herbicides</li> <li>• Provides 3-4 weeks of good Waterhemp control but little Kochia control</li> <li>• Activates with ½" of rainfall</li> <li>• Should only be applied as a PRE</li> <li>• Reduced cover crop injury risk</li> </ul>

\*Dual Magnum used PRE/PPI – must sign Syngenta Dual Magnum indemnity label. Only branded Dual Magnum is labeled.  
 - Ro-Neet SB and Eptam are also labeled preplant in sugarbeet. Contact Agriculturalist for more information if considering.