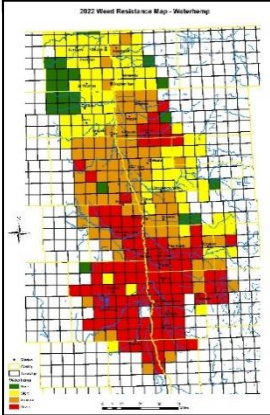


Links to 2022 Weed Resistance Maps

- [Kochia](#)
- [Waterhemp](#)



Notes on PPI and Pre Herbicide Options

Link to [PPI & Pre Herbicide Options](#)

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 lambsquarters control • Needs 3/4" rain to activate if used as PRE • Quicker activation with PPI application • May reduce spring cover crop stands
	5 – 7.5 pt/A	<ul style="list-style-type: none"> • Low for fine textured soils with high organic matter • Greater risk over 5 pt/A on coarse texture soils 	<ul style="list-style-type: none"> • Good waterhemp control for 8 – 10 weeks • Minimum of 5pt/A for resistant kochia • Poor-Fair lambsquarters control • Needs 3/4" rain to activate if used as PRE • Quicker activation with PPI application • Significant injury to spring cover crop • Next year's crop should not be a grass
Dual Magnum	0.5-0.75 pt/A	Low	<ul style="list-style-type: none"> • 2 – 3 weeks waterhemp control • Fair lambsquarters control • Poor kochia control • Needs 1/2" rainfall to activate • Do not recommend PPI application • Safe for cover crops • Must sign indemnity label • Only branded Dual Magnum is labeled
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 1/2" of rainfall • Should only be applied as a PRE • Reduced cover crop injury risk

Important Notice:

Read and follow label directions on all pesticides, this document is not a substitute.



For prompt answers to your questions and comments, call and leave a message and Tom Astrup or one of his staff will respond as soon as possible.

**Shareholders:
1-800-633-8941**

As always, please contact your Agriculturist with any questions you may have.

