

KEEP AN EYE OUT FOR HERBICIDE RESISTANT WEEDS

Here in southeast Nebraska, we know glyphosate resistant marestail exists and glyphosate resistant giant ragweed has been confirmed in Nemaha and Richardson Counties. Waterhemp is probably resistant to more than one herbicide on farmers in southeast Nebraska as well. So how can we keep herbicide resistant weeds from increasing? There are a number of strategies that can be done to minimize the impact of herbicide resistant weeds in your fields. First, it is important to understand the biology of the weeds present. You need to know when they emerge and when they are most susceptible to herbicides. An example is if you think you may have glyphosate resistant giant ragweed, manage your field to control this weed with other herbicides. Giant ragweed is an early emerging weed. Most plants emerge by May 1st. In soybeans it may be advisable to delay planting to get as many of the weed seedlings emerging prior to planting. Giant ragweed is susceptible to 2,4- D so in no-till systems a pre-plant burn down containing 2,4 – D would be effective. Be sure to follow label directions for planting following 2,4 –D. It is very important to plant into a weed-free field and keep fields as weed-free as possible.

Some other best management practices for herbicide resistant weeds include:

- Use a diversified approach to weed management focused on reducing the seed bank.
- Use multiple effective modes of action against troublesome or herbicide-resistant prone weeds.
- Apply the labeled herbicide rate to weeds no larger than the maximum labeled size.
- Emphasize cultural management techniques that suppress weeds by utilizing crop productivity and competitiveness, i.e. different crop rotations, different planting dates
- Prevent weed seed production. **Do what it takes to prevent weeds from going to seed no matter what it takes, particularly herbicide resistant weeds!**

Another major concern in Nebraska is palmer amaranth. While I have not seen infestations of it in the area, I know there are fields in southeast Nebraska that have it. In southwest Nebraska glyphosate resistant palmer amaranth is causing all kinds of problems. The best method of controlling these resistant weeds is to limit their seed production by alternating herbicides, combining herbicides with glyphosate in treating weed problems or even hand-walking fields. It is important to recognize fields that have herbicide resistant weeds so you can prevent them from producing seed. If you think you may have palmer amaranth in a field, do whatever you can to limit seed production. They are prolific seed producers. One plant that was identified in a county to the west of us produced over 1,700,000 seeds!

While the increase of herbicide resistant weeds is a concern, the impact can be reduced by following the good management practices listed above. There is also research being conducted at field sites to evaluate strategies to use for control of herbicide resistant weeds. In 2016, an issue of CropWatch reports on a research trial comparing pre-plant tillage and the use of 2,4-D to control glyphosate resistant giant ragweed. Both methods provided similar levels of early season control. This article can be accessed at <http://cropwatch.unl.edu/2016/using-preplant-tillage-manage-glyphosate-resistant-giant-ragweed>. The 2018 Weed, Disease and Insect Management Guide has a section dedicated to herbicide resistant weeds and a chart showing the different modes of action for the various herbicides. In this guide and previous guides as well, you will be able to identify and develop weed control strategies to combat herbicide resistant weeds. If you have questions feel free to contact me at (402) 274-4755 or at glesoing2@unl.edu.

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