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A LITTLE BIT COUNTRY
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Weed of the Year

The weed science department of North Dakota State University has chosen common ragweed as this year's weed of the year. The selection of common ragweed for this distinction was made because of its growing resistance to certain herbicides. Among them is glyphosate, commonly known as Roundup.

Common ragweed is a summer annual producing up to 64,000 seeds per plant. Seeds require a dormant period before emergence and can stay dormant in the soil for many years. A combination of light and temperature trigger the germination process. Common ragweed emerges early in the season and continues to emerge until hot temperatures halt germination. Crop loss is maximized when common ragweed emerges at the same time as the crop and ragweed density increases. Crop loss is minimal if plants emerge three to four weeks after crop emergence. Common ragweed begins flowering as day length is reduced. A single common ragweed plant can produce greater than 1 billion pollen grains, making life miserable for hay-fever sufferers.

Common ragweed is most effectively controlled with a combination of PRE followed by POST herbicides. The frequency of herbicide resistant biotypes today forces the use of full rates of PRE herbicides. Apply POST herbicides to small (2 to 3") plants to negate any impact from stem-boring insects. The more dense the ragweed population and the more extended the germination period, the more likely multiple POST applications will be required, even following a PRE herbicide. Research indicates that maximum glyphosate activity is usually achieved when common ragweed plants are less than 1 inch in height, including low-level glyphosate-resistant biotypes.

Common ragweed tends to be more of a problem where beans and sunflowers are grown. Wheat growers can rely on Huskie, and other products containing 2, 4-D, Banvel, Buctril, MCPA or Stinger for effective control of common ragweed.

Water Hardness Can Reduce Herbicide Effectiveness

Water hardness is caused by potassium, calcium, magnesium and iron. These minerals can react and antagonize water soluble formulations of many weak herbicides like glyphosate, 2,4-D amine, MCPA amine, dicamba, Curtail and others. The ester formulations of herbicides are oil soluble and do not react directly with the salts in water. However, these oil type formulations need an emulsifier so that the formulation will mix with water.

Ammonium sulfate (AMS) is used to overcome antagonistic ions due to hard water. The amount of AMS needed can be calculated using the following formula: lbs. AMS/100 gal = (0.002 x ppm K) + (0.005 x ppm Na) + 0.009 x ppm CA + (0.014 x ppm Mg) + (0.042 x ppm Fe).

More information regarding the impact of water quality on herbicide effectiveness can be found in this year's North Dakota Weed Control Guide which can be obtained from the Williams County NDSU Extension Office 701-577-4595.