

News Column

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Control weeds in wheat stubble before they set seed

Because of the excessively wet weather in May, among other reasons, many fields of wheat stubble in Kansas have rather large broadleaf and grassy weeds actively growing at this time. Also, where there was extensive hail damage, weeds may be growing quickly now in bare areas of the fields. These weeds are utilizing moisture and nutrients that would be available for a subsequent crop. It is a good idea to control these weeds while there is moisture and active growth, and before they set seed.

Kochia and Russian thistle are daylength sensitive and will begin to flower toward the end of July and into August, thus will need to be controlled before then. Controlling kochia and Russian thistle by mid-July is very important to prevent seed production.

Weeds growing now in wheat stubble fields, without crop competition, set ample seed -- which will result in weed problems for the following crops. It is especially important to prevent seed production from happening on fields that will be planted to crops with limited options for weed control, such as grain sorghum, sunflower, or annual forages. It is especially difficult to control broadleaf weeds in sunflower and grassy weeds in sorghum or annual forages when the weeds emerge after crop emergence. Preventing weed seed production ahead of these crops is essential. Seed of some weed species can remain viable for several years, so allowing weeds to produce seed can create weed problems for multiple years.

If the field will be planted to Roundup Ready corn or soybeans, producers may decide they can just wait and not control the weeds, allowing weed seeds to form and assuming the weeds that emerge next season can be controlled with a postemergence application of glyphosate in the corn or soybeans. However, with the increasing concerns over the development of glyphosate-resistant weeds, kochia, Palmer amaranth, and waterhemp, it would be far better to control these weeds now in wheat stubble. That way, herbicides with a different mode of action can be tank-mixed with glyphosate, or burndown herbicides other than glyphosate may be used to ensure adequate control of glyphosate-resistant weeds.

To control weeds in wheat stubble fields, producers should start by applying the full labeled rate of glyphosate with the proper rate of ammonium sulfate additive. As mentioned, it is also a good idea to add 2,4-D or dicamba (unless there is cotton or other susceptible crops in the area) to the glyphosate. Do not apply growth regulator herbicides around cotton. Tank mixes of glyphosate and either 2,4-D or dicamba will help control weeds that are difficult to control with glyphosate alone, and will help reduce the chances of developing glyphosate-resistant weed populations.

Often tankmixes of dicamba or 2,4-D with glyphosate may not perform well if pigweed populations are glyphosate-resistant or if the weeds are growing under the kind of dry conditions we can experience in Kansas. If weeds are glyphosate-resistant or growing under drought stress, a tankmix of Gramoxone with atrazine or metribuzin (triazines are synergistic with Gramoxone), or Gramoxone with Sharpen, have been a more effective treatment than either a glyphosate/dicamba or glyphosate/2,4-D tankmix.

If wheat is to be planted this fall, **do not** use atrazine or metribuzin in the tankmix. We observed significant injury to wheat in the spring of 2015 following a July 2014 application of 3/8 lb ai metribuzin tankmixed with Gramoxone (Figure 1). Perhaps utilizing Sharpen would be a safer and better option if the field is to be returned to wheat. Sharpen can be used in other tank mixtures and could help control glyphosate-resistant kochia.

Several have asked about the addition of atrazine for residual weed control in fallow. Although atrazine provides residual control of weeds, it is best applied later in the fall (November). At this time of year, atrazine residual is quite short and will not provide adequate control of fall-emerged weeds/winter annuals. An application of atrazine needs to be made in the fall (mid-October through November), depending on the weeds being targeted. Also, keep in mind that atrazine antagonizes glyphosate – just the opposite of the synergistic effect of atrazine and Gramoxone. Do not apply atrazine with reduced rates of glyphosate.

Information provided by Curtis Thompson, Extension Weed Management Specialist