

To: Local News
From: Keith VanSike
Twin Creeks Extension District
Agronomy & Natural Resources

Herbicides for Corn

Residual herbicides that kill weed seeds/seedlings as they germinate or emerge are important for herbicide applications at or before corn planting. These herbicides can control weeds for several weeks, which prevents yield loss due to early-season weed competition. They can greatly improve the effectiveness of a post-emergence herbicide application.

In some situations, herbicide-resistant weeds have resulted from over-reliance on post-emergence herbicide applications, thus it is essential to include one or more residual herbicides available for corn. However, it is also important to remember to change residual herbicides to prevent the selection of tolerant or resistant weeds. The importance of this is reflected in the recent confirmation in other states of waterhemp and Palmer amaranth that are resistant to S-metolachlor.

The specific herbicide you use is important, but it is usually less important than deciding to use a residual herbicide program that includes at least two effective herbicides. But, it is important to know the strengths and weaknesses of each product in terms of the spectrum of weeds controlled. A table summarizing weed species' response to various corn herbicides can be found on pages 25-27 of *2024 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland* (SRP 1162) at: <https://bookstore.ksre.ksu.edu/pubs/SRP1183.pdf> This publication is also available at your local K-State Research and Extension offices.

There are about 6 general classes of herbicides which include a variety of metabolic actions to inhibit weeds. The names are too many to mention here in this article.

Herbicides for Wheat

Producers should pay close attention to the growth stage of their wheat before making spring herbicide applications. Some herbicides must be applied after tillering, several must be applied before jointing, and others can be applied through boot stage. Remember that weeds are most susceptible at early growth stages. Coverage becomes difficult as the wheat canopy develops, so the earliest practical and labeled applications generally result in the best weed control.

Dicamba can be applied to wheat between the 2-leaf and jointing stages. Application of dicamba after wheat reaches the jointing stage of growth causes severe prostrate growth of wheat and a significant risk of yield loss. Fortunately, dicamba provides some residual control of these weeds following application. Products labeled only for use on herbicide-resistant wheat must also be applied prior to jointing.

Herbicides that can be applied later in the spring – prior to boot stage – include Ally + 2,4-D, Amber, Finesse, Glean, Starane Flex, and Starane NXT.

In general, MCPA is safer on wheat than 2,4-D, especially when applied prior to tillering. Neither MCPA or 2,4-D should be applied once the wheat is near or reaches the boot stage of growth, as an application at that time can result in malformed heads, sterility, and significant yield loss. Both 2,4-D and MCPA are available in ester or amine formulations. Many new premixes can be used in the spring on wheat and can be applied up to the time the flag leaf is visible, or later.

For more detailed information, see the “2024 Chemical Weed Control for Field Crops, Pastures, and Noncropland” guide available online at <https://bookstore.ksre.ksu.edu/pubs/SRP1183.pdf> or check with your local K-State Research and Extension office for a paper copy. *Mention of trade names is for clarity of the content and does not imply endorsement or exclusion of a product.*