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Pay attention to growth stage for spring herbicide decisions on wheat

Wheat that was planted before the rains delayed planting are more advanced in the stage of growth and in most cases stands are probably better. But later planted fields may have variable stands and limited tillering coming into spring. Producers should pay close attention to the growth stage of their wheat before making their herbicide applications.

Dicamba can be applied to wheat between the 2-leaf and jointing stages of wheat. Application of dicamba after wheat reaches the jointing stage of growth causes severe prostrate growth of wheat and significant risk of yield loss. Dicamba is effective for control of kochia, Russian thistle, and wild buckwheat, but is not good for control of mustard species. Kochia, Russian thistle, and wild buckwheat are summer annual weeds that may emerge before or after wheat starts to joint, so timing of dicamba for control of these weeds can sometimes be difficult. Fortunately, dicamba provides some residual control of these weeds following application.

Other herbicides that must be applied prior to jointing include Agility SG, Olympus, Orion, PowerFlex HL, Pulsar, and Rave. Beyond should be applied to 1 gene Clearfield wheats after tiller initiation and prior to jointing, but can be applied to 2-gene Clearfield wheats until the second node is detected at the soil surface.

MCPA and 2,4-D have different application guidelines. In general, MCPA is safer on wheat than 2,4-D, especially when applied prior to tillering. We recommend that 2,4-D not be applied to wheat until it is well-tillered in the spring. Application of 2,4-D prior to tillering hinders the tillering process, causes general stunting and can result in significant yield loss.

2,4-D is labeled for application to wheat from the full-tiller stage until prior to the boot stage of growth, but is probably safest between full-tiller and jointing stages of growth. Wheat will sometimes exhibit prostrate growth from 2,4-D applications applied in the jointing stage of growth, but yields generally are not significantly affected if applied before the boot stage of growth.

MCPA is relatively safe on young wheat and can be applied after the wheat is in the three-leaf stage (may vary by product label) until it reaches the boot stage of growth. Consequently, MCPA would be preferred over 2,4-D if spraying before wheat is well-tillered. Neither herbicide should be applied once the wheat is near or reaches the boot stage of growth, as 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. Ester formulations generally provide a little better weed control than amine formulations at the same application rates, but also are more susceptible to vapor drift. However, the potential for vapor drift damage in early spring is minimal. Ester formulations generally are compatible for use with fertilizer carriers, while amine formulations often have physical compatibility problems when mixed with liquid fertilizer.

Other herbicides used in the spring on wheat can be applied up to the time the flag leaf is visible, or later. Affinity BroadSpec, Affinity TankMix, Ally Extra SG, Express, Harmony + 2,4-D or MCPA, Harmony Extra, Huskie, Quelex, and Supremacy must be applied before the flag leaf is visible. Huskie, Weld, and WideMatch can be applied through the flag leaf stage. Herbicides that can be applied later in the spring – prior to the boot stage -- include Ally + 2,4-D, Amber, Finesse, Starane Ultra, and Starane Plus Salvo. Starane is a better choice than dicamba products for control of kochia after wheat moves into the jointing stage of growth. Remember that weeds are most susceptible at early growth stages and coverage becomes difficult as the wheat canopy develops, so the earliest practical and labelled applications generally result in the best weed control.

Information provided by Dallas Peterson, Extension Weed Management Specialist.