

# Factors That Affect Ryegrass Control This Spring



DR. JIM MARTIN

PRINCETON, KY.

**F**all is the preferred time to control Italian ryegrass in Kentucky; however, the conditions last fall were not favorable for the development of wheat or ryegrass. Although planting was ahead of schedule, both wheat and ryegrass plants did not begin to emerge until late October or early November due to the extremely dry conditions. The fact that December's statewide temperature was nearly 9 degrees cooler than normal also limited the development of wheat and ryegrass plants.

The good news is the cold temperatures during December and January enhanced the likelihood of winter kill of small seedling ryegrass. However, growers should not take it for granted that the freezing temperatures eliminated all the ryegrass. Some plants will survive and additional seedlings could emerge as we transition from winter to spring. Fields with a history of ryegrass could still be a problem.

The following are some factors growers need to consider if they determine there is a need to make a spring application for controlling ryegrass:

**Weather Conditions:** Ideally ryegrass and wheat plants need to be actively growing in order to achieve optimum control and avoid crop injury. Be aware it may take several days, if not weeks, to control ryegrass, especially if temperatures are cool. Large fluctuations between daytime high and nighttime low temperatures can result in crop injury with some herbicides. Frost the night before or within two days following application can also enhance the likelihood of wheat injury.

**Competition:** Wheat is somewhat behind in its development, therefore it is important to control competitive weeds, especially ryegrass, in order to give wheat a better chance to finish tillering and develop a competitive canopy.

**Growth Stage:** Crop growth stage can impact when certain herbicides can be applied. Spring treatments with Hoelon need to be applied prior

to jointing of wheat; whereas, Osprey and PowerFlex can be applied up to jointing. Axial XL may be applied up to pre-boot stage. Ideally spring applications should be applied before ryegrass exceeds the maximum growth stage of 2 tillers. The delay in emergence and development of ryegrass will increase the likelihood that most plants will be within the 2-tiller growth stage this spring. Even if plants exceed the 2-tiller stage, a spring application may control or suppress plants enough to limit ryegrass competition to wheat.

**Timing of Nitrogen Fertilizer:** Osprey and PowerFlex are acetolactate synthase (ALS) inhibitor herbicides that can injure wheat if applied near the time of topdressing nitrogen. Stunting and leaf chlorosis are typical injury symptoms that can occur when these herbicides are applied near the time of topdressing nitrogen. The PowerFlex label cautions against making applications within seven days of topdressing ammonium nitrogen fertilizer, while the Osprey label suggests waiting 14 days between application and topdressing. Visual injury can occasionally occur even when following these directions, yet UK data show that it is unlikely this will result in a reduction of wheat yield.

**Rotation Restrictions:** The rotational crop restrictions can impact which option to consider when applying herbicides in the spring for ryegrass control. The Hoelon label does not prohibit planting to double crop soybeans; whereas, Osprey and PowerFlex require a minimum of 3 months between application and planting double-crop soybeans. The rotation intervals for Finesse Grass & Broadleaf and Olympus Flex are much longer which prohibits their use for spring applications.

**Tankmixing:** The use of Harmony Extra, 2,4-D or dicamba as tankmix partners with Hoelon may limit ryegrass control. However, Harmony Extra is an approved tank mix partner with Axial XL or Osprey. Consult product label directions for approved tank mix partners and use of additives. Δ

*DR. JIM MARTIN: Extension Weed Control Specialist, University of Kentucky*