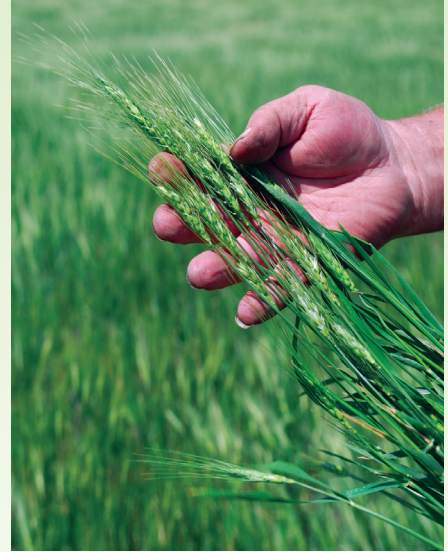


Annual Ryegrass Control in Winter Wheat in Corn and Soybean Rotation

Annual ryegrass can be a very competitive weed in winter wheat. Use annual ryegrass as a cover crop in fields that will not have winter wheat in the crop rotation, **unless** you are committed to using selective herbicides in the wheat crop.

Excellent control of annual ryegrass in winter wheat can be achieved without relying solely on glyphosate applications. In fact, having winter wheat in the crop rotation offers the chance to use alternative herbicide modes of action to control annual ryegrass and other weeds.

Annual ryegrass in winter wheat can be controlled using the herbicides described below. Not all of these applications may be necessary, but the wide window of timings and products provides some flexibility in deciding when or if an application is needed. However, the key to control in most cases will include the use of one of the selective post-emergence herbicides – plan on using one of them (Axial, Osprey or PowerFlex).



- **Apply a burndown herbicide** before planting wheat if there is volunteer annual ryegrass present in the field. Use paraquat or clethodim if you want to use a non-glyphosate herbicide. Annual ryegrass control may not be as good with paraquat as with glyphosate or clethodim.
- **Consider using a residual herbicide** such as one of the newly registered pyroxasulfone or pyroxasulfone pre-mix products including Zidua (0.7-2.0 oz/A) or Anthem Flex (2.0-4.5 oz/A). Alternatively, use Axiom (up to 10 oz/A on heavy soils) or diuron (1.2 - 1.6 lb ai/A) applied pre-emergence or early post-emergence (one leaf) to the wheat.
- **Plan on using one of the selective post-emergence grass herbicides** registered for winter wheat. The three products listed below provide excellent control of annual ryegrass and can be applied in the fall or spring. Be aware of growth stage requirements for winter wheat and plant-back restrictions for corn and soybeans, which may limit the ability to double crop soybeans following winter wheat harvest. In general, apply these herbicides to annual ryegrass that is in the 2- to 3-leaf growth stage to maximize control, and before the annual ryegrass begins to form tillers.
- **PowerFlex HL** Apply 2.0 oz/A from the 3-leaf to jointing stage of winter wheat. In the spring, this product can be mixed with phenoxy herbicides (except dicamba and amine formulations of 2,4-D and MCPA) to provide excellent broad spectrum grass and broadleaf control. Plant-back restrictions: Corn (9 months); soybeans (3-5 months depending on geographic location and timing of PowerFlex HL application and soybean planting.) See PowerFlex HL label for additional details.
- **Osprey.** Apply 4.75 oz/A from winter wheat emergence to jointing. Osprey may be tank mixed with a wide array of broadleaf herbicides to broaden the spectrum of weed control in winter wheat. Plant-back restrictions: Corn (12 months); soybeans (90 days).

continued on back

Annual Ryegrass Control in Winter Wheat in Corn and Soybean Rotation (Continued)

- **Axial XL.** Apply 16.4 oz/A to winter wheat from the 2-leaf to pre-boot stage. This product offers the widest window of application in winter wheat. Axial XL may be tank mixed with a wide array of broadleaf herbicides. Plant-back restrictions: Corn (90 days); soybeans (90 days).
- **Non-glyphosate program.** To completely avoid the use of glyphosate, one approach is to use one of the soil residual herbicides followed by PowerFlex HL in the fall after the annual ryegrass has emerged and the wheat is in the 3-leaf stage. This can provide outstanding control. If needed, escapes can be controlled in the spring with Osprey or Axial XL (Axial XL can be applied late into the development of the winter wheat crop).
- **Double crop soybeans** (soybeans planted following winter wheat harvest) may limit herbicide choices for annual ryegrass control in winter wheat depending on herbicide application timings in the winter wheat and soybean planting dates. However, the use of PowerFlex HL or Osprey in the fall on small winter wheat is a good option to maximize the potential to double crop soybeans. Both Osprey and PowerFlex HL can be tank-mixed with Prowl H2O (1.5-3.0 pts/A depending on geographic location and soil type) to provide some residual annual ryegrass control. If there is good emergence of annual ryegrass in the fall, a well-timed fall application can provide excellent season-long control limiting the need for a spring herbicide application thus maintaining the ability to double crop soybeans.

2013. Mark Mellbye and Andy Hulting, Ph.D.

Mellbye, a former Extension field crops agent with Oregon State University, has worked with annual ryegrass in Oregon's seed production region for 25 years. He has also partnered with Midwest agronomists in the development of annual ryegrass as a successful cover crop.

Dr. Hulting is the Extension Weed Management Specialist and an associate professor of weed science with Oregon State University. His research includes work on weed management in annual ryegrass seed production and ryegrass control in wheat.



P.O. Box 3336, Salem, OR 97302 • Ph: (503) 364-2944 • Fax: (503) 581-6819 • ryegrasscovercrop.com

Paid for by the Oregon Ryegrass Growers Seed Commission, an agency of the State of Oregon.



RyegrassCovercrop.com