

# Managing Annual Ryegrass

**W**hile annual ryegrass proves itself annually as an excellent cover crop, in some circles, it has a bad reputation for unwanted volunteer growth. That reputation, however, is a bit unwarranted as annual ryegrass is actually easy to control.

Research projects throughout the Midwest prove that annual ryegrass can be effectively and economically controlled with common agricultural chemicals. In fact, researchers for the University of Illinois Extension showed that when timed properly, spraying glyphosate (Roundup®) herbicides resulted in highly effective ryegrass control after only one chemical application and a complete burndown after the second spraying.

The study, conducted by Stephen Ebelhar and Mike Plumer, concentrated on the efficiency of various herbicides on the control of annual ryegrass planted as a cover crop in row crop production. The treatments were applied to ryegrass in two stages of growth in two different southern Illinois counties and similar success was reported on each of the fields at ten days after spraying and then again at 45 days after the herbicide application.

Before you begin your ryegrass cover crop control regimen, keep these tips in mind:

- Annual ryegrass is relatively easy to control at an earlier growth stage, but cold temperatures can slow burndown.

- Most annual ryegrass control strategies call for using glyphosate herbicides.

- If possible, spray before the ryegrass reaches the joint stage (typically 6 to 10 inches in height).

- If spraying after jointing, expect to apply twice.

- Spraying works best when night temperatures exceed 40 degrees Fahrenheit and daytime temperatures are at least 50 degrees F. As a rule, the warmer the temperature, the more effective the chemical burndown. If the temperature is below the threshold, spraying at mid-day increases the herbicide's effectiveness.

- Cloudy and wet weather negatively influences the effectiveness of the herbicide.

- An application rate of 1.5 to 2 quarts of glyphosate per acre is optimum.

- Adding 8 ounces of 2,4-D per acre helps control winter annual weeds.

- The optimum amount of water is 12-15 gallons per acre when using a glyphosate herbicide (7-10 gallons per acre in cool weather).

- If spraying over glyphosate tolerant (Roundup Ready) corn or soybeans, wait until the ryegrass regrowth reaches 2 to 4 inches in height.

- Gramoxone applied at 3 pints per acre also shows good results in controlling annual ryegrass. (A second spray of glyphosate or Gramoxone with a triazine application may be necessary.) ■

## The Costs of No-Till Farming With an Annual Ryegrass Cover Crop

**W**hile it's easy to extol the virtues of annual ryegrass and its benefits to the soil and cropland, is it really a cost efficient way to manage corn and soybean ground between growing seasons? The answer is a resounding yes.

In conventional tillage systems, where multiple passes are made over the same field before planting is even initiated, costs quickly add up. Since agricultural inputs like fuel and fertilizer are at historically high prices, farmers everywhere are looking for ways to "farm smarter," and the switch to no-till from conventional tillage systems may indeed be the solution.

According to USDA studies on the cost of conventional tillage methods, planting and managing annual ryegrass as a no-till cover crop would appear to cost approximately \$8 dollars per acre more. However, that cost does not take into account the monetary benefits of annual ryegrass cover crops that are hard to measure – additional nitrogen credits, increased soil quality, and reduced insect damage, which all equal higher yields ... farming smarter.

Using annual ryegrass as a cover crop may increase corn yields 2 to 10 bushels per acre (approximately \$14 to \$70 more yield per acre at projected 2008 fall prices) and deposit \$11 to \$35 of nitrogen credits per acre. Therefore, using annual ryegrass as a cover crop could realistically provide growers with \$25 to \$105 more profit per acre. If you farm 500 acres of corn, that could equal \$12,500 to

\$52,500 more profit annually. If you farm 1,000 acres of corn, using annual ryegrass as a cover crop could result in \$25,000 to \$105,000 more profit annually. Keep in mind, these benefits also apply to soybean productivity.

Lastly, if a corn/soybean grower is in the cattle business, or has cattle farmers in the vicinity, the annual ryegrass cover crop can be used or sold locally. Annual ryegrass can produce high-quality hay. Five hundred acres of annual ryegrass sold to local cattle farmers – sold on a contract where the buyer cuts and bails the hay himself and pays a discounted price per bail – can generate up to \$15,000 or more, which is profit the grower receives without even starting up the tractor. ■