

Secure Optimal Yield 2009 Herbicide Report



Decision made by growers every year during the spring will help determine how many bushels they have to harvest in the fall. While some aspects of farming will always be dependent on factors beyond a grower's control, the crop management practices outlined in the Secure Optimal Yield (SOY) program provide field tested methods and products to enhance yield and profitability.

SOY is a grower education effort launched last year in the 2007 crop season through the cooperation of the American Soybean Association (ASA) and BASF. Nearly 300 soybean farmers in 25 states took part in the 2008 SOY program.

"ASA is partnering with BASF on the SOY program to help identify new ways for ASA members to maximize soybean yield and profitability," said ASA President Johnny Dodson, a soybean producer from Halls, Tennessee. "The crop management practices outlined in the SOY program can help reduce early season weed pressure so soybeans get off to a better start."

To learn more about participating in the 2009 SOY Challenge, see Page 3.

"Burndown with residual herbicides is essential for achieving optimal soybean yield," said Brandie Penrose, Technical Marketing Specialist, BASF.

Glyphosate- and herbicide-resistant weeds are of major concern to soybean growers worried about potential yields from the upcoming season. In the U.S., there are 312 unique herbicide-resistant biotypes and 12 known weeds that are resistant to glyphosate. Some of the most troublesome weeds, including horseweed and common ragweed, are resistant to the most cost-effective and mainstream herbicides on the market today.

"Starting with a good weed burndown program in soybeans is often the most important decision a farmer will make for the whole year," Penrose said.

Glyphosate-resistant weeds have made burndown applications more

complicated, and as a result, more essential. A burndown application that includes using a residual herbicide, such as Extreme® herbicide for no-till soybeans, is an aggressive approach to control winter annuals and broadleaf weeds so soybean seeds can be planted in a field with few, if any, live weeds.

Preplanting burndown applications made before or near the time of planting will give soybean crops an early advantage. Incorporating a residual herbicide in the application creates a clean slate for a field, which helps maximize yield potential in soybeans. They protect yield by reducing the number of weeds, including annual winter weeds that may potentially host harmful pests; improve control over weeds in-season by reducing the growth of problematic weeds; delay the onset of weed resistance; and reduce weed density and decrease weed height. As a result of reduced weed growth, the time needed between a burndown herbicide application and post-emergent treatments may be extended. This is particularly important when poor weather conditions interfere with timely post-emergent treatments.

"Many farmers prefer to make only one application of a residual herbicide and wait to apply it later in the season to save money and time, however, the consequences of early-season yield loss are motivating more farmers to add a residual herbicide to their burndown application," Penrose said. "For every inch in weed height over six inches, soybean yield may decrease by one bushel per acre."

The additional cost of including a residual herbicide in a burndown application is minor when considering the financial benefits of soybean yield increase. The extra expense of adding a residual herbicide may actually pay for itself with as little as a one bushel per acre yield increase.

"With the high demand and selling price for soybeans, the goal of every herbicide program should be to maximize yield," Dodson said.

Burndown is often the best opportunity to control troublesome weeds like horseweed, and it is essential to inhibit weed growth on the first attempt. Using the full rate of a residual herbicide will provide the longest duration of weed control and greatest impact on reducing weed height and density.

**A Growers' Guide
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Good spray coverage is important for optimum burndown weed control and can be improved with proper adjuvant, nozzle and spray volume selection. Use and configure spray equipment to provide an accurate and uniform distribution of spray droplets over the treated area and to avoid spray drift to non-target areas.

The ideal timing for a burndown herbicide application varies based on the herbicide selected. For no-till and stale seedbed soybeans, Extreme is effectively applied as a burndown prior to planting. For Roundup Ready® soybeans, Extreme is effective as a burndown or a post-emergence application.

Prowl® H2O herbicide is a selective herbicide for controlling most annual grasses and certain broadleaf weeds as they germinate. It will not control established weeds and must be applied before they develop. In the spring, Prowl H2O can be applied up to 15 days prior to planting, and may be applied up to 45 days prior to planting when used in a tank mix or applied sequentially with Extreme, Raptor® or Pursuit® herbicide. It will provide the most effective weed control when applied by ground or aerial equipment, and subsequently incorporated into soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed seedling emergence from the soil.

Extreme is the leader of a category of value-added herbicides created specifically for maximum weed control in Roundup Ready soybeans. Extreme attacks newly emerged grasses and broadleaf weeds with the knock-down power of glyphosate and keeps them down with the trusted residual control of Pursuit, while clearing Roundup Ready soybeans of early-season, yield-robbing weed competition. It tank-mixes easily for burndown with Prowl H2O for season-long control of grasses.

“There are a few things to consider before moving forward with a burndown application,” Penrose added. “Wet and warm weather conditions are ideal for achieving maximum control over weeds, while cool and dry conditions require more effort and product to achieve the same results. It may be benefi-

cial to delay timing of a burndown application to wait for more favorable conditions. Additionally, growers managing larger farms believe that soybeans can tolerate five weeks of weed competition without yield loss. This grower mindset allows weeds more time to grow and will likely negatively impact soybean yield.”

A burndown application with residual herbicide is both a cost-effective and effective way to reduce the presence of weeds, provide control over future weed growth and help achieve optimal soybean yield.

2009 SOY Challenge Program Incentives

In addition to enhanced yield potential, participants in the 2009 SOY program will receive a free one-year ASA membership (approximate value of \$70), an official SOY display sign for test field and a \$200 Cabela's® gift card after submitting field trial results.

Also, growers submitting a success story with field trial results become eligible to win a Grand Prize 2010 Dodge pickup (value up to \$40,000), plus a round-trip ticket to the 2010 Commodity Classic in Anaheim, Calif., OR 1 of 2 Runner-Up Prizes of \$2,000 cash, plus a round-trip ticket to the Commodity Classic. Official Contest Rules and Regulations are available at www.SoyGrowers.com/SOY/.



Clean rows on the treated side of this 2008 SOY trials field contrast with the control area on the right side where weed growth is apparent. These weeds are competing for the moisture and sunlight the soybean plants need to achieve optimal yield. (BASF photo)

Sign up to Participate in the 2009 SOY Challenge

The American Soybean Association and BASF present the Secure Optimal Yield (SOY) Challenge program to provide soybean growers with an opportunity to demonstrate enhanced weed and disease management techniques on their farm.

To sign up for this program, go to www.SoyGrowers.com/SOY/ by March 13, 2009, and you will have an opportunity to run a field trial on your farm. Get expert advice from BASF on how to better manage weeds and diseases to maximize your soybean yields and profits.

Program Objectives

- Protect soybean yields by reducing early-season weed competition
- Lengthen the glyphosate application window to reduce the risk of missing post timing
- Reduce risk of weed resistance or weed shifts
- Enhance disease management for improved Plant Health and increased yields Increase net yield per acre of soybeans

Participation Criteria

The following guidelines represent the minimum requirements for participation in the ASA-BASF Secure Optimal Yield (SOY) Challenge for the 2009 growing season. Field test areas should be chosen carefully to minimize effect of local field variations.

1. All participants must be members of the American Soybean Association. If you are not already an ASA member, ASA will provide a free one-year membership (approximate value \$70) when you sign up for the 2009 SOY program. ASA member benefits include 10 issues of the *ASA Today* newsletter; e-mail subscription to the ASA Weekly Leader Letter; discounted registration for the annual

Commodity ClassicSM conference and trade show; 10% discount on Cabela's[®] gift cards purchased on www.SoyGrowers.com; Preferred Price (1% below factory invoice) on the purchase or lease of most new Chrysler, Dodge or Jeep vehicles; and your children and grandchildren are eligible to compete for an annual \$5,000 SOY Scholarship for pursuit of ag degrees. (If you are already an ASA member, you'll receive a free one-year extension. If you're a lifetime member, you'll receive a Cabela's gift card equal to the cost of a one-year membership in your state.)

2. Allocate 20 or more historic corn/soy acres within a single field.
3. Field trial acres to be planted with a single variety of Roundup Ready[®] soybeans of the participant's choice.
4. Control acres to be treated with a single post application of glyphosate only.
5. Test acres to be treated with a burndown application that includes a BASF residual herbicide, one post application of glyphosate and one application of Headline[®] fungicide at R2-R3.
6. Grower maintains records and provides feedback showing type and cost of crop inputs used, weed and disease control observations and yield harvest data. Submit information to BASF by November 13, 2009, and ASA will send you a \$200 Cabela's gift card redeemable online or at Cabela's retail outlets.
7. A complete set of guidelines will be provided to all field trial participants. Growers will be contacted by BASF for further program guidance.

For more information, contact:

- Your local ASA Recruiter
- Your local BASF Retailer
- Your BASF Business Representative
- Call BASF directly @ 1-866-315-9487

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