What You’ll Learn...

- Weed management is often more difficult in the spring because of weed size and weather conditions.
- Fields that are heavily infested with weeds such as marestail, henbit, dandelion, and chickweed are good candidates for a fall burndown herbicide application.
- Burndown and residual herbicides can provide control of most winter annuals.
- Fall burndown is an opportunity to use herbicides with different sites of action on difficult weeds such as Palmer amaranth.

Benefits

Post-harvest herbicide applications, in minimum- or no-till fields, can help to provide a weed-free seedbed in the spring.

- Fields with heavy weed populations are the best candidates for a fall application.
- Fall burndown helps to spread out the workload in the spring.
- Fall burndown typically provides better control of marestail than spring burndown.
- Palmer amaranth should be managed after harvest up to frost to help prevent seed production.
- Fall conditions are more favorable for control of winter annual weeds than early spring because of smaller weed size and more suitable days for herbicide applications.¹

- Controlling winter annuals in the fall may improve soil temperature and soil moisture at planting.¹
- Fall burndown can reduce the potential for cutworms and soybean cyst nematodes (SCN) by removing weed hosts where these pests overwinter.

Fall applications will not eliminate the need for a residual herbicide program near or at planting. Fall burndown will not provide in-season control of summer annual weeds, particularly tough-to-control weeds such as waterhemp or Palmer amaranth.

Winter Annual Weeds, Marestail, and Palmer Amaranth

Winter annual weeds will emerge in the fall after harvest and complete their life cycle in the spring and early summer. Weed control is often more difficult in the spring because of larger weeds and weather conditions. If allowed to grow in the spring, winter annual weeds can form a thick mat on the soil surface which can interfere with tillage, crop establishment, and soil warming from the sun.

A single marestail plant can produce as many as 200,000 seeds, so it is vital that growers initiate a herbicide control program when marestail is small.² Marestail is generally easier to control in the fall when they are small before they bolt or shoot a main stem in the spring. Bolted marestail is difficult to control with a spring burndown herbicide application.

Palmer amaranth can emerge and produce seed in the fall in as little as 5 to 6 weeks. Tillage or mowing may be needed to control cut-off or newly emerged plants that exceed 4 inches in height after harvest.
Herbicide Recommendations

Roundup PowerMAX® Herbicide and Roundup PowerMAX® II Herbicide are effective on most grass and broadleaf weeds; however, the addition of dicamba and other tank mix partners can improve control of most winter annuals including marestail. Some marestail or Palmer amaranth populations may be resistant to glyphosate (the active ingredient in Roundup® brand glyphosate-only agricultural herbicides) and may require the addition of dicamba for control.

Check individual product labels to determine crop planting restrictions for residual herbicides, just in case planting intentions change. Any crop can be planted 4 months after an application of dicamba or 30 days after Roundup PowerMAX® Herbicide or Roundup PowerMAX® II Herbicide application. Rowel™ FX Herbicide use is restricted by soil pH above 7.0, soil texture, and in some northern states. The rotation interval for corn for Rowel™ Herbicide or Valor® SX is 14 to 30 days, at the 3 oz/acre rate, 10 months for Rowel™ FX Herbicide or Valor® XLT, and 10 to 18 months for Authority® products. Tillage after application may reduce residual weed control.

Fields with a diverse array of winter annual, biennial, or perennial weeds plus tough-to-control weeds may require multiple herbicide application timings (spring burndown, at-planting, or in-crop) for effective weed management. The application of residual herbicides in the fall does not replace the need for residual herbicide applications in the spring.

Table 1. Fall Burndown Options Prior to Planting Soybeans.

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<thead>
<tr>
<th>Burndown Herbicides</th>
<th>Add Residual Herbicides</th>
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<tr>
<td>Roundup PowerMAX® Herbicide or Roundup PowerMAX® II Herbicide at 32 fl oz/acre plus dicamba or 2,4-D LV4 at 0.5 lb a.e./acre</td>
<td>Rowel™ Herbicide at 2 to 4 oz/acre or Rowel™ FX Herbicide at 3 to 5 oz/acre; or Valor® at 2 to 4 oz/acre or Valor® XLT at 3 to 5 oz/acre; or Authority® XL at 6.4 oz/acre or Authority® MTZ at 14 oz/acre; or metribuzin at 6 to 8 oz/acre</td>
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All treatments should be applied when weeds are less than 4 inches tall. Increase the Roundup PowerMAX® Herbicide or Roundup PowerMAX® II Herbicide rate to 44 ounces if weeds exceed 12 inches tall. Ammonium sulfate, at 8.5 to 17 pounds per 100 gallons of water, should be the first product added to the tank. Use 10 to 15 gallons of water per acre. Do not use AMS in glyphosate + dicamba tank mixtures, use a non-AMS water conditioner.

Summary

Fall herbicide applications should be part of a comprehensive weed management program in several crops. Programs should be designed to minimize the risk of weed resistance and weed species shifts. Get crop and weed specific recommendations at http://www.roundupreadyPLUS.com.

Sources: 1 Bradley, K. 2013. Considering fall herbicides applications: It's not just about the weeds.

For additional information, contact your local seed representative. Developed in partnership with Technology, Development & Agronomy by Monsanto.