

Management Guide for Common Ragweed

Monsanto is committed to providing the information and product recommendations necessary to minimize the risk of developing weed resistance. The information below is targeted at increasing awareness of important weeds and helping preserve glyphosate efficacy.

Common Ragweed Biology

- Common ragweed is the most abundant of the ragweed species. It out-competes many other annual weeds, and will reduce crop yield potential if not managed in a timely manner.
- Common ragweed is a shallow-rooted annual with variability in plant size, leaf shape and the amount of hairs found on the plant.
- The leaves are nearly smooth, thin and finely divided into a number of lobes.
- Common ragweed can grow to more than 28 inches in height.
- Common ragweed spreads only by seeds. Small common ragweed plants average about 3,000 seeds per plant, while larger plants can produce up to 62,000 seeds.¹
- Once in the soil, common ragweed seeds can survive for years, waiting for the opportunity to germinate.¹

Weed Environment

- ✓ Common ragweed is found in old pastures, wasteland, roadsides, stubble fields, and cultivated land – particularly in row crops.
- ✓ Common ragweed's smooth and finely divided leaves, as well as plant size, make herbicide coverage a challenge.
- ✓ Glyphosate-resistant common ragweed populations have been confirmed on separate sites in Missouri and Arkansas.² Other suspected resistant populations are under investigation.

¹ Weed Science Society of America: Dickerson, C. and R.D. Sweet. 1971. Common Ragweed Ecotypes. Weed Sci. 19:64-66

² Heap, I. The International Survey of Herbicide Resistant Weeds. Online. Internet. November, 2006. Available www.weedscience.com

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Treatment Recommendations¹

Scout fields and control weeds throughout the season. Proper application timing protects yields, ensures correct use rate for weed size and considers the impact of environmental conditions on performance.

Roundup Ready® Corn 2

- ✓ Start clean with a burndown herbicide or tillage. Early season weed control is critical in corn to maximize yield potential.
- ✓ Apply a preemergence residual herbicide containing atrazine such as Harness® Xtra, Degree Xtra®, or other residual herbicides at the recommended rate.
- ✓ Or apply a preemergence residual herbicide containing atrazine at the recommended rate tank mixed with Roundup WeatherMAX® at a minimum of 22 oz/A in-crop before common ragweed exceeds 4 inches in height.
- ✓ Follow with a postemergence in-crop application of Roundup WeatherMAX at a minimum of 22 oz/A for additional common ragweed flushes before they exceed 4 inches in height.
- ✓ Tank mix other herbicides such as 2,4-D or dicamba (Clarity®, Banvel® or Distinct®) with Roundup WeatherMAX if necessary for postemergence common ragweed control.

Roundup Ready® Flex Cotton and Roundup Ready Cotton

- ✓ Start clean with a burndown herbicide or tillage. Tank mix Roundup WeatherMAX with dicamba (Clarity) or 2,4-D (consult label for plant back timing).
- ✓ Apply a preemergence residual herbicide at the recommended rate, such as fluometuron (Cotoran) or diuron (Direx).
- ✓ In-crop, apply Roundup WeatherMAX at a minimum of 22 oz/A when common ragweed is small.
- ✓ Roundup WeatherMAX can be tank mixed with other herbicides such as Envoke® if necessary for postemergence common ragweed control.

Roundup Ready Soybeans

- ✓ Scout fields before and after each burndown and in-crop application.
- ✓ Start clean with a burndown herbicide or tillage. Tank mix Roundup® agricultural herbicides with 2,4-D to control common ragweed prior to planting.
- ✓ If you have dense stands of common ragweed or are in a continuous Roundup Ready Soybean rotation, use a residual herbicide such as flumioxazin (Valor®) preemergence or cloransulam (FirstRate®).
- ✓ In-crop, apply Roundup WeatherMAX at a minimum of 22 oz/A before common ragweed exceeds 8 inches in height.
- ✓ If an additional flush of common ragweed occurs, observe maximum annual application rates.
- ✓ Roundup WeatherMAX may be tank mixed with other herbicides such as lactofen (Cobra®) or fomesafen (Flexstar®) if additional postemergence common ragweed control is needed.

Minimize the Risk of Weed Resistance

- **Start clean and control weeds early.**
- **Use Roundup Ready Technology as your foundation.**
- **Add other herbicides and cultural practices where appropriate as part of the Roundup Ready System.**
- **Use the right rate at the right time.**
- **Control weeds throughout the season and reduce the weed seed bank.**

Report incidents of repeated non-performance of any Monsanto branded herbicide to your local Monsanto retailer or call 1-800-ROUNDUP.

This is not a product label. Always read and follow label directions for all products used in tank mixtures. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance. Monsanto has not tested all recommended tank mix product formulations for compatibility or performance.

¹This fact sheet is issued to clearly describe use recommendations permitted under FIFRA Section 2(ee) as not being inconsistent with product labeling, or is issued to highlight an approved use from the product labeling. It is a violation of federal law to use any registered pesticide product in a manner inconsistent with its labeling. Read and follow all precautions and use instructions contained within the labeling. The applicable labeling for all products must be in the possession of the user at the time of application. Some recommended pesticide products are not registered in all states. Check with the product manufacturer or your dealer for products registered in your state. The distribution, sale or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited.

These recommendations are for all states except Texas.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS: Roundup Ready® crops contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® agricultural herbicides. Roundup agricultural herbicides will kill crops that are not tolerant to glyphosate. Harness® brands and Degree Xtra® are restricted use pesticides and are not registered in all states. The distribution, sale or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local Monsanto dealer or Monsanto representative for the product registration in your state. Harness®, Degree Xtra®, Roundup®, Roundup Ready® and Roundup WeatherMAX® are trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.