

Management Guide for Wild Buckwheat

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.

Wild Buckwheat Biology

- A native of Europe, wild buckwheat, also known as black bindweed, is a cool-season, annual broadleaf that reproduces by seed.
- Wild buckwheat is in the smartweed family and is often mistaken for field bindweed. Its black, shiny three-cornered seeds, elongated heart-shaped leaves and small flowers set it apart.
- The flowers are greenish-white, small, and born in the leaf axils or at the tips of branches.
- The hairless stems start out erect and then begin to twine and creep up to three and a half feet. Wild buckwheat has a fibrous root system.
- Wild buckwheat can produce up to 1,200 small seeds per plant.¹
- Wild buckwheat can cause crop lodging due to its vining growth habit, thus making combining difficult.

Weed Environment

- ✓ Wild buckwheat is present throughout the world, and occurs in most cropping systems.
- ✓ Wild buckwheat's characteristic creeping or twining vine-like stems and waxy leaf surface make the weed difficult to control.
- ✓ Wild buckwheat must be controlled when small. The weed germinates early in the spring and has an aggressive growth habit.
- ✓ Wild buckwheat is a serious weed, and often reduces crop yield and quality. The weed's seeds are difficult to remove from crop seeds.²
- ✓ No wild buckwheat populations have been confirmed resistant to glyphosate.³

¹ www.umanitoba.ca/afs/

² www.ag.uiuc.edu

³ 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[®] Canola

- ✓ Apply 22 oz/A Roundup WeatherMAX[®] in a pre-plant burndown to control emerged plants prior to seeding. Wild buckwheat should not exceed 2 inches in height to keep the weeds from becoming too large for effective control in-crop.
- ✓ For a planned single-spray in-crop treatment, apply 16 oz/A Roundup WeatherMAX emerged wild buckwheat that is one inch or less.
- ✓ Clopyralid (Stinger[®]) can be added at a rate of 4-8 oz/A for enhanced control of wild buckwheat.

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 wild buckwheat exceeds 2 inches in height.
- ✓ Follow both programs with a postemergence in-crop application of Roundup WeatherMAX at a minimum of 22 oz/A for additional wild buckwheat before they exceed 2 inches in height.
- ✓ Tank mix other herbicides such as 2,4-D, dicamba or Distinct[®] with Roundup WeatherMAX if necessary for enhanced postemergence wild buckwheat control.

Roundup Ready Soybeans

- ✓ Scout fields before and after each burndown and in-crop application.
- ✓ Start clean with a burndown herbicide or tillage. Tank mixing with 2,4-D will help provide more effective control.
- ✓ If you have dense stands of wild buckwheat or are in a continuous Roundup Ready Soybean rotation, use a residual herbicide like flumetsulam (Python[®]).
- ✓ In-crop, apply Roundup WeatherMAX[®] at a minimum of 22 oz/A before wild buckwheat exceeds 2 inches in height.
- ✓ If an additional flush of wild buckwheat occurs, observe maximum annual application rates.
- ✓ Roundup WeatherMAX may be tank mixed with other herbicides including thifensulfuron (Harmony[®] GT) if additional postemergence wild buckwheat 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. Roundup[®], Roundup Ready[®], Roundup UltraMAX II[®], and Roundup WeatherMAX[®] are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.