



THE NEXT STEP IN WEED CONTROL FOR YOUR ROUNDUP READY 2 XTEND[®] SOYBEANS

Herbicide formulations developed for use in the Roundup Ready[®] Xtend Crop System

Roundup Xtend[™] with VaporGrip[®] Technology

XtendiMax[®] with VaporGrip[®] Technology



Chemistries in the Roundup Ready® Xtend Crop System

CHOOSE THE BEST OPTION FOR YOUR FIELD AND FARM

The high-yielding Roundup Ready 2 Xtend® soybeans are tolerant to both glyphosate and dicamba. Choose the chemistry option that is right for you to protect your soybeans from weed pressure and help manage herbicide resistance:

ROUNDUP XTEND™ WITH VAPORGRIP® TECHNOLOGY

The only low volatility dicamba and glyphosate pre-mix herbicide formulated, for convenience of use.

XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY

This low volatility dicamba straight-goods formulation is designed to be tank mixed with the best glyphosate choice for your field: Roundup WeatherMAX® or Roundup Transorb® HC.

DICAMBA: THE PERFECT PARTNER TO GLYPHOSATE

Monsanto chose dicamba for the Roundup Ready® Xtend Crop System for a number of reasons:

- Dicamba pairs well with glyphosate because of their similar rapid uptake and translocation profiles
- Dicamba offers some residual activity, which helps you start clean and maximize yield potential as part of a complete weed control program
- Dicamba has been shown to improve weed control performance and consistency while controlling tough-to-control weeds



Helps manage weed resistance by controlling glyphosate-resistant weeds

Post-emergence control of glyphosate-resistant Canada fleabane in Roundup Ready 2 Xtend® soybeans. Source: 2015 University of Guelph trials, Ridgeway, ON.



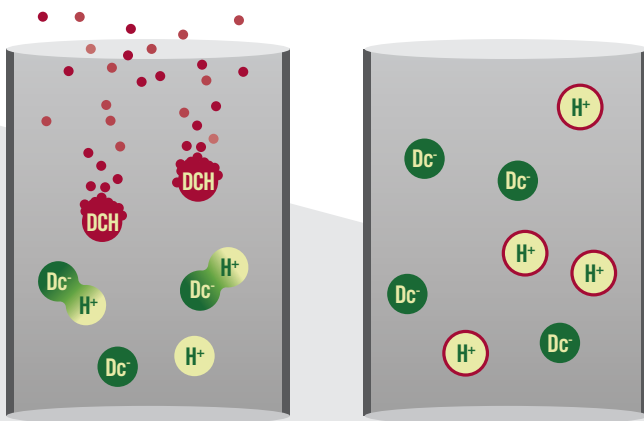
Reduces early weed competition through short-term residual control

Residual control of broadleaf weeds. Picture taken at 14 days after planting. Source: 2015 Monsanto Centre of Excellence, Oakville, MB.

VAPORGRIP® TECHNOLOGY

- Step-change reduction in volatility potential when using XtendiMax® with VaporGrip® Technology and Roundup Xtend™ with VaporGrip® Technology as compared to other commercially available dicamba formulations
- Provides applicators greater confidence in on-target application of dicamba as a part of the full Application Requirements

Whether you choose to protect your soybeans with Roundup Xtend or XtendiMax herbicide, you can count on the convenience of a low-volatility dicamba formulation.

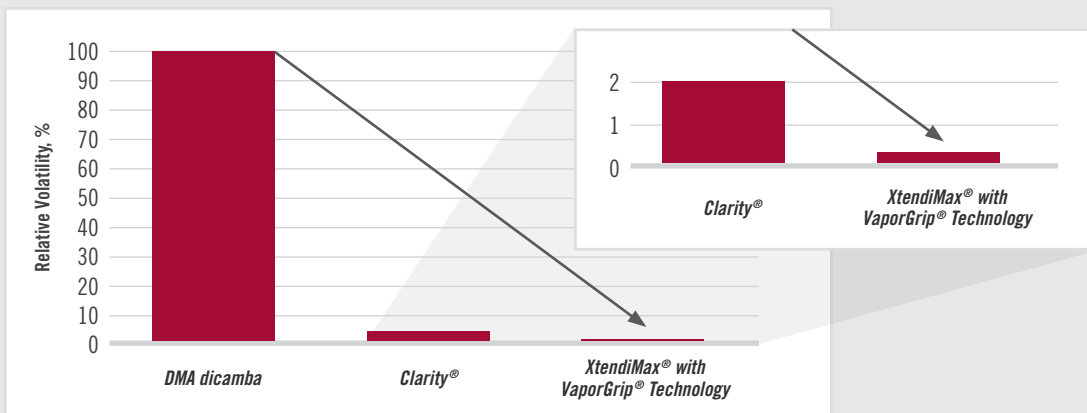


In older dicamba formulations, dicamba ions (Dc^-) present in solution combine with free hydrogen ions (H^+) to form volatile dicamba acid (DcH).

VaporGrip® Technology prevents dicamba acid (Dc^-) from combining with hydrogen ions (H^+), reducing volatility.

RELATIVE VOLATILITY OF XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY HERBICIDE AS COMPARED TO COMMERCIALLY AVAILABLE DICAMBA FORMULATIONS

(Relative volatility as measured in humidome testing)



Source: Monsanto company humidome testing, St. Louis, MO.
Clarity® herbicide is a U.S. dicamba herbicide product. It is registered in Canada as Banvel® II.



ROUNDUP XTEND™ WITH VAPORGRIP® TECHNOLOGY

Roundup Xtend™ with VaporGrip® Technology is a low-volatility glyphosate and dicamba pre-mix herbicide formulation developed for use in the Roundup Ready® Xtend Crop System. Roundup Xtend with VaporGrip Technology is the only dicamba and glyphosate pre-mix herbicide available for convenience of use.

Active Ingredients: Glyphosate (Group 9) + Dicamba (Group 4)

KEY WEEDS CONTROLLED*

Annual broadleaf weeds:

Annual sow thistle, biennial wormwood, buckwheat (tartary, wild), bur cucumber, Canada fleabane, chickweed, cleavers, cocklebur, common lamb's quarters, corn spurry, cow cockle, Eastern black nightshade, flixweed, green smartweed, hempnettle, kochia, lady's thumb, mustard (wild, hare's ear, Indian, tumble, wormseed), narrow-leaved hawk's beard, narrow-leaved

vetch, night-flowering catchfly, Pennsylvania smartweed, pigweed (redroot, Russian, smooth), prickly lettuce, ragweed (common, false, giant), round-leaved mallow, Russian thistle, shepherd's purse, stinkweed, stork's bill, velvetleaf, volunteer adzuki beans, volunteer canola (non glyphosate-tolerant), volunteer flax, wild tomato

Annual grass weeds:

Annual blue grass, barnyard grass, crabgrass (smooth, large), downy brome, fall panicum, foxtail (green, yellow), Persian darnel, volunteer barley, volunteer wheat, wild proso millet, wild oats

Perennial weeds:

Perennial sow thistle, foxtail barley, Canada thistle, common milkweed, dandelion, field bindweed, quackgrass, wire-stemmed muhly, yellow nutsedge

APPLICATION RATES

Pre-plant/pre-emergence

1, 1.5, or 2 L/ac (2.5, 3.75 or 5 L/ha)**

2 L/ac is preferred for maximum residual opportunity and the most consistent weed control.

Post-emergence (up to R1)

1, 1.5, or 2 L/ac (2.5, 3.75 or 5 L/ha)***

Up to two applications per season. Second POST application should only be used for control of glyphosate-resistant weeds.

Equivalent tank-mix doses when applying Roundup Xtend with VaporGrip Technology – Rates in L/ac (L/ha)

Roundup Xtend	=	Roundup WeatherMAX®	+	XtendiMax®
2 (5)		0.9 (2.22)		0.7 (1.71)
1.5 (3.75)		0.67 (1.65)		0.5 (1.24)
1 (2.5)		0.45 (1.11)		0.35 (.86)

*Refer to label for weeds controlled by rate, as well as proper weed staging.

**The 2 L/ac rate can be used only once in a season and should be applied pre-plant, pre-emergence or in-crop early post-emergence (up to the V2 growth stage).

***4 L/ac is the maximum total to be applied in a single season.



XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY

XtendiMax® with VaporGrip® Technology is a new low-volatility dicamba formulation, developed for use in the Roundup Ready® Xtend Crop System. An ideal straight-goods option to help manage glyphosate-resistant and tough to control weeds.

Active Ingredient: Dicamba (Group 4)

POST EMERGENCE BROADLEAF WEED CONTROL

Weed	Dicamba % Weed Control
ANNUAL BROADLEAVES	
Buckwheat, Wild	● 90-100%
Canada Fleabane	● 90-100%
Cocklebur	● 90-100%
Kochia	● 90-100%
Lady's Thumb	● 90-100%
Lamb's Quarters	● 90-100%
Mustards	● 60-70%
Nightshades	● 90-100%
Pigweeds	● 90-100%

Weed	Dicamba % Weed Control
Ragweed, Common	● 90-100%
Ragweed, Giant	● 90-100%
Velvetleaf	● 90-100%
Waterhemp	● 80-90%
PERENNIALS	
Canada Thistle	● 80-90%
Field Bindweed	● 80-90%
Red Clover	● 90-100%
Sow Thistle	● 90-100%

Source: OMAFRA Publication 75

APPLICATION RATES

Pre-plant/pre-emergence

0.33 – 0.7 L/ac*

0.7 L/ac is preferred for maximum residual opportunity and early season weed control.

Post-emergence (up to R1)

0.33 – 0.7 L/ac**

Up to two POST applications per season. Second POST application should only be used for control of glyphosate-resistant weeds.

*The 0.7 L/ac rate can be used only once in a season.

**1.4 L/ac is the maximum total to be applied in a single season.

For other crops, see label for rates.

TANK MIX PROCEDURE*

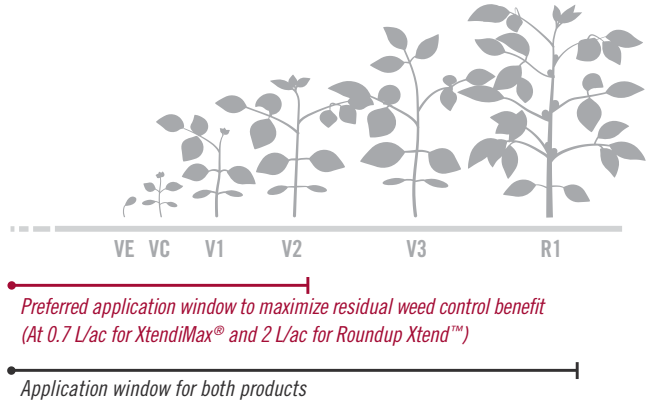
Water } XtendiMax® herbicide } Agitate } Roundup WeatherMAX® or Roundup Transorb® HC herbicide } Agitate

For product recommendations and more specific weed control options, visit MonsantoCMS.ca

*ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Tank mixtures: The applicable labeling for each product must be in the possession of the user at the time of application. Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. Monsanto has not tested all tank-mix product formulations for compatibility or performance other than specifically listed by brand name. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance.

APPLICATION WINDOW

- Apply early to maximize residual weed control benefits
- Extended early-season weed control can boost yield potential
- Wide application window – provides flexibility for weather delays
- If targeting glyphosate-resistant weeds, include an additional, effective mode of action



APPLICATION REQUIREMENTS



Nozzles: Use nozzles and operating pressures that produce Extremely Coarse to Ultra Coarse droplets to minimize drift



Wind speed: Optimal wind speeds for application typically occur between 5 and 15 km/h



Triple rinse: Use triple rinse sprayer clean-out procedure



Weed height: Spray weeds less than 10 cm tall



Label buffer: Maintain the required label buffer to protect sensitive areas



Ammonium sulfate: Ammonium sulfate and ammonium-based additives are restricted in applications



Boom height: Maintain boom height 50 cm above crop canopy or target weeds to reduce the risk of drift



Ground speeds: Make sure ground speed is less than 25 km/h



Water volume: Minimum carrier volume is 10 GPA

Always read and follow label directions.

MONSANTO
Technical Support Line
1-800-667-4944



Contact Monsanto Technical Support at 1-800-667-4944 with any questions about the application or product performance of Roundup Xtend™ herbicide with VaporGrip® Technology or XtendiMax® herbicide with VaporGrip® Technology.

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ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready 2 Xtend® soybeans contain genes that confer tolerance to glyphosate and dicamba. Agricultural herbicides containing glyphosate will kill crops that are not tolerant to glyphosate, and those containing dicamba will kill crops that are not tolerant to dicamba. Contact your Monsanto dealer or call the Monsanto technical support line at 1-800-667-4944 for recommended Roundup Ready® Xtend Crop System weed control programs. Roundup Ready 2 Xtend®, Roundup Ready®, Roundup WeatherMAX®, Roundup Xtend™, VaporGrip® and XtendiMax® are trademarks of Monsanto Technology LLC, Monsanto Canada Inc. licensee. All other trademarks are the property of their respective owners. ©2016 Monsanto Canada Inc.