

Volatility Reducing Agent

What factors contribute to volatility?

The availability of protons (H+) in solution, significantly increases the potential for dicamba acid to be formed. Dicamba acid is the volatile form and can potentially volatilize. The availability of protons is influenced by a number of factors including salt of dicamba, tank-mix partners, and overall solution pH. Therefore, it is important to only utilize approved low-volatility dicamba and approved tank-mix partners for applications.

How does VaporGrip® Technology work?

VaporGrip® Technology buffers against significant changes in solution pH and prevents the formation of dicamba acid by scavenging extraneous protons.

What is VaporGrip® Xtra Agent?

VaporGrip® Xtra Agent is a tank mix adjuvant that delivers additional VaporGrip® Technology to spray tanks for further reduction of potential dicamba volatility.

What is the use rate of VaporGrip® Xtra Agent?

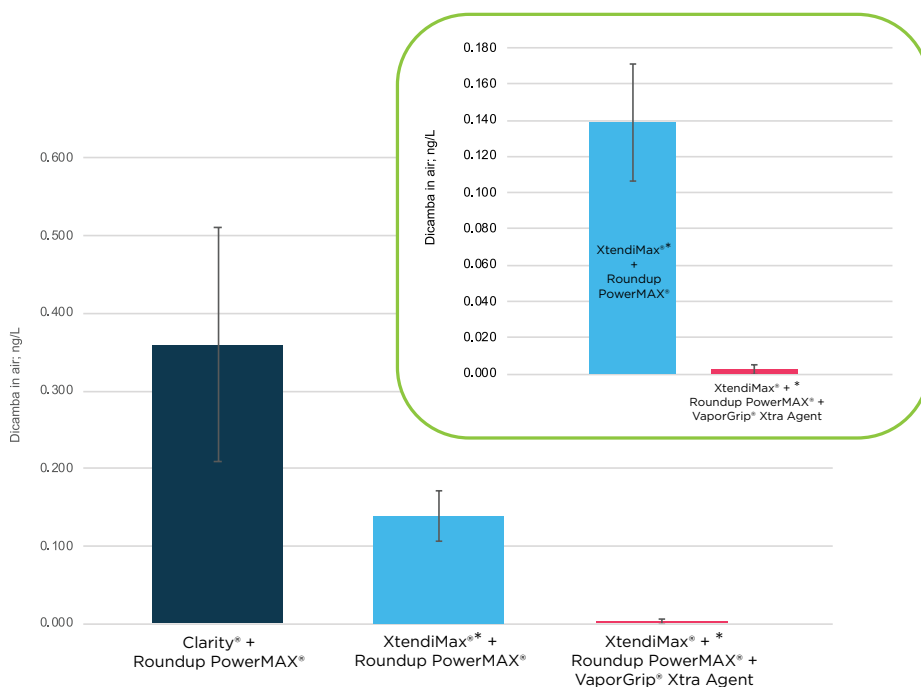
VaporGrip® Xtra Agent should be used at a minimum rate of 20 oz/A.

Has VaporGrip® Xtra Agent been tested?

VaporGrip® Xtra Agent has been thoroughly tested* in field trials by Bayer and US academic weed scientists.

Bayer Humidome** Trials - VaporGrip® Xtra Agent Performance

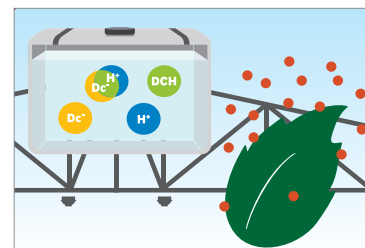
Humidome** studies measuring the air concentration of dicamba demonstrate that VaporGrip® Xtra Agent provides additional volatility reduction.



Black brackets in the middle of the bars represent error bars that take into account the differences between various measurements and replications in each test to assign levels of confidence to the results.

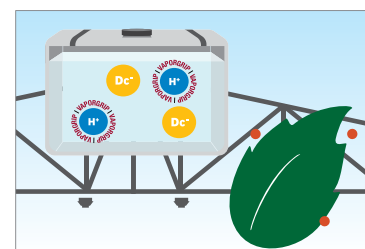
How VaporGrip® Technology Works

Dicamba without VaporGrip® Technology



In the tank there is the potential for dicamba acid (DCH) to form in solution and create off-target movement of dicamba through volatility after spraying

XtendiMax® herbicide with VaporGrip® Technology, a restricted use pesticide



In the tank, VaporGrip® Technology reduces the formation of dicamba acid (DCH) in solution, minimizing volatility potential of dicamba after spraying

No dicamba may be used in-crop with seed in the Roundup Ready® Xtend Crop System unless and until approved by the U.S. EPA and the appropriate state agency for such use. As of August 11, 2020, no dicamba formulations are currently registered by the U.S. EPA for in-crop use with seed in the Roundup Ready® Xtend Crop System in the 2021 season.

*Testing of VaporGrip® Xtra Agent was done in combination with XtendiMax® Herbicide with VaporGrip® Technology. Expect similar trends with other dicamba products. As of August 11, 2020, XtendiMax herbicide is not a registered product."

**Gavlick, W.K., D.R. Wright, A. MacInnes, J.W. Hemminghaus, J.K. Webb, V.I. Yermolenka, W. Su. 2016. A method to Determine the Relative Volatility of Auxin Herbicide Formulations, Pesticide Formulation and Delivery Systems: 35th Volume, ASTM STP1587. pp 24-32G. R. Goss, Ed. ASTM International, West Conshohocken, PA.

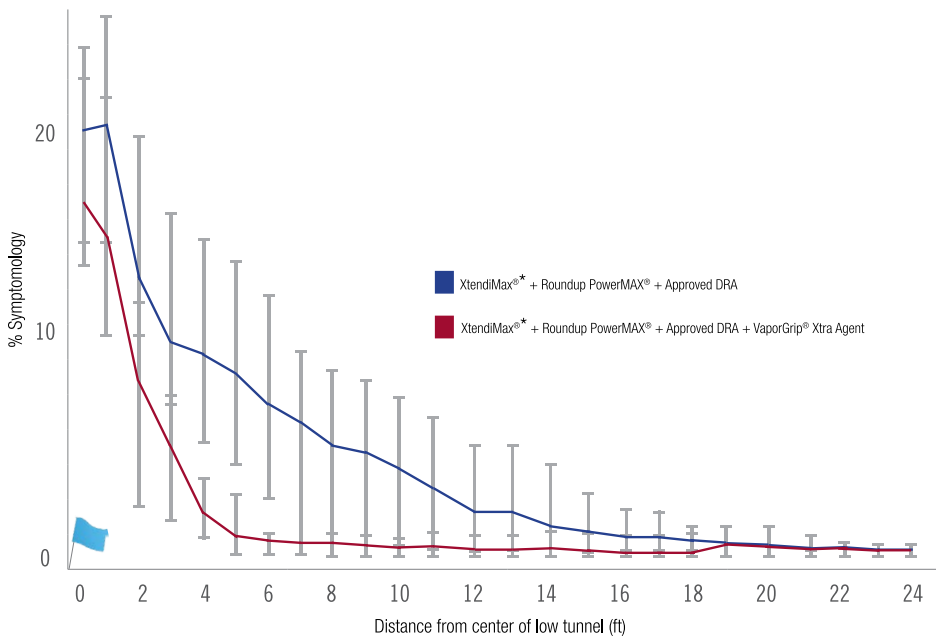
Volatility Reducing Agent

VaporGrip® Xtra Agent Performance Validated Through Low-Tunnel Trials - Conducted in cooperation with US Academic Weed Scientists across key soybean growing areas

- Low tunnel trials provide field evaluation of soybean plant response due to dicamba volatility
- The method was developed and executed by Bayer and US academic weed scientists
- Treatments are conducted at 4X field use rate to separate low volatility treatments (see detail below)
- Each treatment was applied to 2 flats of soil
- Soil was treated at a remote location and transported to the test site
- Soil flats wetted to field capacity the night before the trial
- Flats exposed to the crop for 48 hours
- Crop injury ratings taken 14 and 28 days after treatment
- Temperature under the hoop house monitored with a weather station (in many cases, air temperature was 100-120 degrees)



Low-Tunnel Trials 14 Days After Treatment 20 Trials conducted by US Academic Weed Scientists



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Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields. Bayer, Bayer Cross, PowerMAX®, Roundup®, VaporGrip® are registered trademarks of Bayer Group. All other trademarks are the property of their respective owners. ©2020 Bayer Group. All rights reserved. Suralta™ is a trademark of CHS Inc.

4x Use Rate Detail

- 128 oz/A: Roundup PowerMAX® Herbicide
- 88 oz/A: XtendiMax® Herbicide with VaporGrip® Technology
- 2% v/v: Approved DRA
- 80 oz/A: VaporGrip® Xtra Agent

