

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

100-1623

EPA Reg. Number:

Date of Issuance:

4/5/2019

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

A21472 PLUS VAPORGRIP TECHNOLOGY

Name and Address of Registrant (include ZIP Code):

Monty Dixon
Senior Regulatory Product Manager
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, NC 27419

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following terms and conditions:

General Terms

1. You must submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Terriel 1. Roshlow for	4/5/2019
Michael L. Goodis, P.E.	
Director, Registration Division (RD)	
Office of Pesticide Programs (OPP)	

- 2. You are required to comply with the data requirements described in the DCIs identified below:
 - a. Dicamba GDCI-029801-1721
 - b. S-metolachlor: GDCI- 108800-1508

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1

- 3. This registration will automatically expire on December 20, 2020.
- 4. Final Printed Label. You must submit one copy of the final printed label before you release any new product for shipment featuring this label. Any changes to the final printed labeling must be submitted to EPA before being used in future production.

You are advised that if you wish to add/retain a reference to the company's website on your label, then the website becomes "labeling" under FIFRA. If the website content is false or misleading, all products referencing the website would be misbranded and it would be unlawful to sell or distribute them under FIFRA section 12(a)(1)(E). In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Should the Agency find, or if it is brought to our attention, that a website contains false or misleading statements or claims substantially differing from the EPA-accepted registration, the matter will be referred to the EPA's Office of Enforcement and Compliance.

Tank Mixing and Spray Drift Requirements

5. You must maintain a website at www.TaviumTankMix.com. That website will include a list of products that have been tested pursuant to Appendix A and found, based upon such testing, not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology. The website will identify a testing protocol, consistent with Appendix A, that is appropriate for determining whether the tested product will adversely affect the drift properties of A21472 Plus VaporGrip Technology. The website must state that any person seeking to have a product added to the list must perform a study either pursuant to the testing protocol identified on the website or another protocol that has been approved for the particular purpose by EPA, and must submit the test data and results, along with a certification that the studies were performed either pursuant to the testing protocols identified on the website or pursuant to another protocol(s) approved by EPA and that the results of the testing support adding the product to the list of products tested and found not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology, to EPA. EPA will notify you when the Agency determines that a product has been certified to be appropriately added to the list, and you will add appropriately certified products to the list no more than 90 days after you receive such notice from EPA. Testing of Tank-Mix Products must be conducted in compliance with procedures as stated forth in Appendix A.

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- 6. All test data relating to the impact of tank-mixing any product with A21472 Plus VaporGrip Technology on drift properties of A21472 Plus VaporGrip Technology A21472 Plus VaporGrip Technology generated by you or somebody working for you must be submitted to EPA, along with a certification indicating whether the study was performed either pursuant to the testing protocols identified on the website or pursuant to other protocols approved by EPA and whether the results of the testing support adding the product to the list of products tested and found not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology to the EPA's Office of Pesticide Programs.
- 7. The prohibition of using products in a tank-mix with A21472 Plus VaporGrip Technology unless the product used is contained on the list http://www.taviumtankmix.com, and the identification of the website address, shall be included in educational and information materials developed for Syngenta, including the materials identified in Appendix D, Section B(l).
- 8. You must maintain, update and follow an Herbicide Resistance Management Plan (HRM) as laid out in Appendix D regarding grower agreements, field detection and remediation, education, evaluation, reporting, and best management practices (BMPs).

Enhanced Reporting

If Syngenta acquires any of the information identified below, that information must be reported to EPA's Office of Pesticide Programs under section 6(a)(2), or under 40 CFR 159.195 unless you have previously submitted that information to EPA's Office of Pesticide Programs.

- 9. Information, other than personally identifiable information, received by telephone or in writing regarding potential damage to non-target vegetation from use of dicamba during the 2019 and 2020 growing seasons regardless of any determination that the incident resulted from misuse (intentional or accidental). Information should be forwarded to EPA regardless of which dicamba product may have been used and/or whether or not the alleged damage resulted from a product being used according to label directions. Data should be organized by product and state and should include available information regarding acreage involved, plant species involved, severity of damage, and similar information received. This information must be submitted with cumulative totals and be submitted monthly, beginning June 1st, 2019.
- 10. Information, other than personally identifiable information, received by telephone or in writing regarding reports of dicamba-resistant weeds, and cases of weed control failure and/or suspected resistance. All information should be forwarded to EPA regardless of which dicamba product may have been used and/or whether or not the alleged resistance occurred after an application made according to label directions.
- 11. A summary of all studies being conducted or sponsored by Syngenta, pertaining to off-target movement of the labelled use of A21472 Plus VaporGrip Technology (e.g., volatility, physical drift, runoff) must be provided to the EPA.
- 12. Any information or analysis finding that foods/commodities contain dicamba residues that are not covered by a tolerance or exceed established tolerance levels.
- 13. Number and type of containers, including volume of material produced by Syngenta of A21472 Plus VaporGrip Technology. This information should be categorized by the state to which the registrant shipped such material.

Additional Data Requirements

The following additional confirmatory studies are required as a condition of this new registration. Since these are non-guideline studies, prior to developing a protocol and initiating any study, Syngenta must meet with EPA staff to present and engage in a data quality objective discussion regarding environmental conditions, sampling, and species evaluated. Protocols must be submitted before April 15th, 2019 for the Agency's consideration. This work to agree on final protocols will be undertaken on a schedule that recognizes the timing for conducting research during 2019. Field studies must be conducted during the 2019 growing season and final reports must be submitted to the Agency in connection with the January 15, 2020 required reporting submission outlined in Appendix D, Section D.

- 14. Field studies examining off-site movement of dicamba. Specifically, the study design needs to evaluate impacts on plant height and yield from primary and secondary drift off-target, with transects in all four cardinal directions. These studies should represent varied geographic areas and include locations where high numbers of complaints have been logged and ranges of environmental conditions (e.g., temperature and humidity). Additionally, a study needs to evaluate the effects of dicamba-containing agricultural irrigation water on non-target plants. Data evaluating the response of non-DT soybean or other non-target plants exposed to irrigation water contaminated with dicamba. A consistent protocol is required for all field locations.
- 15. Studies to investigate temperature effects on volatility of dicamba. The use of humidome studies would allow EPA to evaluate the effects of temperature in a controlled environment for a multitude of temperature, relative humidity, and tank mix pH conditions.
- 16. Ecological effects data on non-target plants, related to survival, growth and reproduction for select sensitive tree/shrub/woody perennial species. The study design could involve an extended period for consideration of such species.
- 17. Study which evaluates the effect of pH on secondary movement of dicamba. The analysis should examine variability introduced by tank mix partners and different water conditions on the pH of the mixed material. The study should reflect a variety of water pH throughout the country, particularly in areas with the largest technology adoption and incidents. These tests should examine the pH of the applied solution.

If you fail to satisfy these terms, conditions and data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Enclosure

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Appendix A

Testing of Tank Mix Products for Spray Drift Properties

Products proposed for tank-mixing with may be added to the list of products that will not adversely affect the spray drift properties of A21472 Plus VaporGrip Technology contained on the web site if a study is performed under the testing conditions set forth below; the test information is reported as set forth below; and the results are interpreted as set forth below and the interpretation supports adding the tested product to the list of products that will not adversely affect the spray drift properties of A21472 Plus VaporGrip Technology:

Testing Conditions

Spray chamber test using conditions described in ASTM E-2798-11; or Wind Tunnel test using conditions described in EPA Final Generic Verification Protocol for Testing Pesticide Application Spray Drift Reduction Technologies for Row and Field Crops (September 2013)

Testing Media: A21472 Plus VaporGrip Technology + A21472 Plus VaporGrip

Technology Proposed Tank Mix Product

Test Nozzle: Tee Jet® TTI 11004 at 63 psi

Number of Replicates: 3 for each tested medium

Reporting

Validation information as summarized in Appendix B

Full droplet spectrum to be reported for each replicate of each tested medium

Perform AGDISP (8.26) modeling run for each replicate droplet spectrum for each tested medium (AGDISP input parameters described in Appendix C)

Establish 110 foot (0.5 lb ae/A rate) spray drift deposition estimates from AGDISP run on each replicate for each tested medium

Establish mean and standard deviation of 110 foot (0.5 lb ae/A rate) deposition for the 3 replicates of each tested medium

One-tail (upper bound) t-test (p=Q.l) to determine if proposed tank-mix product is A21472 Plus VaporGrip Technology 110 foot (0.5 lb ae/A rate) spray drift deposition

Interpretation of Results

If mean 110-foot (0.5 lb ae/A rate) deposition for proposed tank-mix product is not statistically greater than mean 110-foot deposition for A21472 Plus VaporGrip Technology, proposed tank-mix product can be added to the list of products that will not adversely affect the spray drift properties of A21472 Plus VaporGrip Technology contained on the web site. If mean 110-foot (0.5 lb ae/A rate) deposition for proposed tank-mix product is statistically greater than mean 110 foot (0.5 lb ae/A rate) deposition for A21472 Plus VaporGrip Technology, proposed tank-mix product cannot be added to the list of products that will not adversely affect the spray drift properties of A21472 Plus VaporGrip Technology contained on the web site.

Results from other testing protocols will be acceptable for adding products to the list of products that will not adversely affect the spray drift properties of A21472 Plus VaporGrip Technology provided that EPA has determined in writing that such other protocol is appropriate for such purpose.

Appendix B

Validation Criteria

- a. Detailed information of instrument setting and measurements
- The distance from the nozzle tips to the laser settings
- Measurements of airspeed and flow rate of liquid
- b. Detailed information of test substances
- Volume composition and density of A21472 Plus VaporGrip Technology formulation and tank mixes
- c. Summary of the entire spray output distribution for each nozzle/tank mixes with statistical analysis of replicates.
- d. Graphical outputs of Sympatec Helos laser diffraction particle size analyzer FOR individual spectrum

Report of DvO.1 (SD), DvO.5 (SD), and DV0.9 (SD) as well as mean % fines of (< 141pm SD)

Appendix C

AGDISP Input Parameters

Parameter	Value	Comments
Application Method Section		
Method	Ground	
Nozzle Type	Flat fan (Default)	The direct use of the DSD overrides the use of "nozzle type"
Boom Pressure	63 psi	If nozzles/tank mixes were tested at 63 psi. It has to be consistent with tank mix as well as A21472 Plus VaporGrip Technology for both TeeJet® and AIXR nozzles
Release Height	3 ft	Default
Spray Lines	20	Default
		logy Section
Wind Type	Single height	Default
Wind Speed	15 mph	Under bound from label
Wind Direction	-90 deg	Worst-case and default
Temperature	65 F	Default
Relative Humidity	50%	Default
	Surfac	ee Section
Angles	0	Default
Canopy	None	Default
Surface Roughness	0.12 ft	Mean of "crops" cover type
	Application T	echnique Section
Nozzles	54, even spacing	Standard boom setup
DSD	From wind tunnel results, imported in library	
Atmospheric stability	Strong	Default
<u>,</u>	Swatl	n Section
Swath width	90 ft	Standard boom
Swath displacement	0 ft	Worst-case
•	Spray Ma	terial Section
Spray volume rate	15 gal/A	From label
Volatile/nonvolatile	A21472 at 2.94% (v/v)	To calculate volatile/nonvolatile fraction in the tank
fraction		mix for the model input, provide detailed
		information of the tested formulations and tank
		mixes. See sample calculation below ¹
1 The tested mixture wa	s 2 04% (y/y) A 21472 A 21472 b	has a density of 9.42 lb/gal and contains 17.7% (w/v)

1 The tested mixture was 2.94% (v/v) A21472. A21472 has a density of 9.42 lb/gal and contains 17.7% (w/v) dicamba DGA salt (1.12 lb acid equivalent/gal).

For example, a 15-gallon batch would contain the following:

A21472 2.94% * 15 gal = 0.441 gal; 0.441 gal * 9.42 lb/gal = 4.51 lb

Water 15 gal (1920 fl oz) -56.5 fl oz = 1863.5 fl oz / 128 fl oz/gal * 8.345 lb water/gal = 121.5 lb

Total weight 4.51 lb + 121.5 lb = 126 lb

Active ingredient fraction: 4.51 lb * 17.7% a.i. = 0.80 lb; 0.8 lb/121.5 lb = 0.0066 (dimensionless)

Non-volatile fraction: 0.0066/0.177 = 0.037 (dimensionless)

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Appendix D

HERBICIDE RESISTANCE MANAGEMENT PLAN

Syngenta must:

A. Field Detection and Remediation Components:

- 1. Update and implement an education program for growers, as set forth under the "Educational / Informational Component," below, that identifies appropriate best management practices (BMPs), as set forth under the "Best Management Practices (BMPs) Component," below, to avoid and control weed resistance, and that conveys to growers the importance of complying with BMPs. Such BMPs shall include that fields must be scouted after application to confirm herbicide effectiveness, and that users should report any incidence of lack of efficacy of this product against a particular weed species to Syngenta or a Syngenta representative.
- 2. If any grower informs you of a lack of herbicide efficacy, then you or your representative must make an effort to evaluate the field for "likely resistance" to A21472 Plus VaporGrip Technology for each specific species for which lack of herbicide efficacy is reported by applying the criteria set forth in Norsworthy, et al., "Reducing the Risks of Herbicide Resistance: Best Management Practices and Recommendations," Weed Science 2012 Special Issue:31–62 (hereinafter "Norsworthy criteria") in each specific state until resistance to dicamba is confirmed for a specific weed species in that state using acceptable scientific methods. However, for each grower, you must continue to provide stewardship about resistance management throughout their use of this product. If resistance to dicamba is confirmed in a specific state for a specific weed species, then Syngenta must immediately report such confirmation to EPA and need no longer investigate reports of lack of herbicide efficacy regarding that specific species in that specific state, but Syngenta must continue to make an effort to help address of lack of herbicide efficacy regarding any other weed species in any such state;
- 3. Keep records of all field evaluations for "likely resistance" for a period of 3 years, and make such copies available to EPA upon request; and
- 4. If one or more of the Norsworthy criteria are met, then for a weed species not already confirmed to be resistant to dicamba in that specific state, Syngenta will:
 - a. Provide the grower with specific information and recommendations to control and contain likely resistant weeds, including retreatment and/or other non-chemical controls, as appropriate. If requested by the grower, Syngenta or their agent will become actively involved in implementation of weed control measures;
 - b. Request, at the time of the initial determination that one or more of the Norsworthy criteria are met and prior to any application of alternative control practices, that the grower provide you with access to the relevant field(s) to collect specimens of the likely resistant weeds (potted specimens or seeds) for further evaluation in the greenhouse or laboratory, and so collect such specimens if

¹ The Norsworthy "likely herbicide resistance" criteria are: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; or (2) a spreading patch of uncontrolled plants of a particular weed species; or (3) surviving plants mixed with controlled individuals of the same species. The identification of any of these criteria in the field indicates that "likely herbicide resistance" is present.

- possible (or, alternatively, request that the grower provide such specimens to you, at your expense);
- c. Commence greenhouse or laboratory studies to confirm resistance as soon as practicable following sample collection;
- d. To the extent possible, contact or visit the grower in an appropriate timeframe after implementation of the additional weed control measures in order to evaluate success of such measures; and
- e. If the additional weed control measures were not successful in controlling the likely resistant weeds, then:
 - 1. Work with the grower to determine the reason(s) why the additional control measures were not successful;
 - 2. Report annually the inability to control the likely resistant weeds to relevant stakeholders; and
 - 3. Offer to further assist the grower in controlling and containing the likely resistant weeds, including retreatment and/or other non-chemical controls, as appropriate.

B. Educational / Informational Component:

- 1. Update and implement an education program for growers that includes the following elements:
 - a. The education program shall identify appropriate best management practices (BMPs), set forth under the "Best Management Practices (BMPs) Component," below, to avoid and control weed resistance, and shall convey to growers the importance of complying with BMPs;
 - b. The education program shall include at least one written communication regarding herbicide resistance management each year, directed to users of A21472 Plus VaporGrip Technology for use over-the-top on dicamba tolerant soybean or cotton; and
 - c. You must make the education program available to Syngenta sales representatives for distribution to growers.
- 2. Provide to EPA the original education program within three months of the issuance of this registration.

C. Evaluation Component:

1. Syngenta will annually conduct a survey directed to users of A21472 Plus VaporGrip Technology for use over-the-top of dicamba tolerant soybean or cotton. This survey must be based on a statistically representative sample. The sample size and geographical resolution should be adequate to allow analysis of responses within regions, between regions, and across the United States. This survey shall evaluate, at a minimum, the following:

- a. Growers' adherence to the terms of the A21472 Plus VaporGrip Technology Use Directions and Label Restrictions, and
- b. Whether growers have encountered any perceived issue with non-performance or lack of efficacy of A21472 Plus VaporGrip Technology and, if so, how growers have responded.
- 2. Utilize the results from the survey described in paragraph 1 of this section to annually review, and modify as appropriate for the upcoming growing season, the following:
 - a. Efforts aimed at achieving adoption of BMP's;
 - b. Responses to incidents of likely resistance and confirmed resistance; and
 - c. The education program. At the initiative of either EPA or Syngenta, EPA and Syngenta shall consult about possible modifications of the education program.

D. Reporting Component:

- 1. Submit annual reports to EPA by January 15 of each year, beginning on January 15, 2020. Such reports shall include:
 - a. Annual sales of A21472 Plus VaporGrip Technology by state;
 - b. The first annual report shall include the current education program and associated materials, and subsequent annual reports shall include updates of any aspect of the education program and associated materials that have materially changed since submission of the previous annual report;
 - c. Summary of your efforts aimed at achieving implementation of BMP's;
 - d. Summary of your determinations as to whether any reported lack of herbicide efficacy was "likely resistance," your follow-up actions taken, and, if available, the ultimate outcome (e.g., evaluation of success of additional weed control measures) regarding each case of "likely resistance." In the annual report, Syngenta will list the cases of likely resistance by county and state.
 - e. The results of the annual survey described in paragraph 1 under "Evaluation Component," above, including whether growers are implementing herbicide resistance BMPs, and a summary of your annual review and possible modification based on that survey of the education program, , and response to reports of likely resistance, described in paragraph 2 under "Evaluation Component," above; and
 - f. Summary of the status of any laboratory and greenhouse testing performed by, or at the direction of, Syngenta following up on incidents of likely resistance, performed in the previous year. Data pertaining to such testing need not be included in the annual reports, but such data must be made available to EPA upon request.

Following your submission of the annual report, you shall meet with the EPA at EPA's request in order to evaluate and consider the information contained in the report.

E. Best Management Practices (BMPs) Component:

- 1. Best management practices (BMPs) must be identified in your education program. Growers will be advised of BMP's in product literature, educational materials and training. The following are examples of BMPs:
 - a. Regarding crop selection and cultural practices:
 - 1. Understand the biology of the weeds present.
 - 2. Use a diversified approach toward weed management focused on preventing weed seed production and reducing the number of weed seeds in the soil seed-bank.
 - 3. Emphasize cultural practices that suppress weeds by using crop competitiveness.
 - 4. Plant into weed free fields, keep fields as weed free as possible, and note areas where weeds were a problem in prior seasons.
 - 5. Incorporate additional weed control practices whenever possible, such as mechanical cultivation, biological management practices, crop rotation, and weed-free crop seeds, as part of an integrated weed control program.
 - 6. Do not allow weed escapes to produce seeds, roots or tubers.
 - 7. Manage weed seed at harvest and post-harvest to prevent a buildup of the weed seedbank.
 - 8. Prevent field-to-field and within-field movement of weed seed or vegetative propagules.
 - 9. Thoroughly clean plant residues from equipment before leaving fields.
 - 10. Prevent an influx of weeds into the field by managing field borders.
 - 11. Fields must be scouted before application to ensure that herbicides and application rates will be appropriate for the weed species and weed sizes present.
 - 12. Fields must be scouted after application to confirm herbicide effectiveness and to detect weed escapes.
 - 13. If resistance is suspected, treat weed escapes with an alternate mode of action or use non-chemical methods to remove escapes.

b. Regarding herbicide selection:

- 1. Use a broad spectrum soil applied herbicide with a mechanism of action that differs from this product as a foundation in a weed control program.
- 2. A broad spectrum weed control program should consider all of the weeds present in the field. Weeds should be identified through scouting and field history.
- 3. Difficult to control weeds may require sequential applications of herbicides with alternative mechanisms of action.
- 4. Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action.
- 5. Apply full rates of this herbicide for the most difficult to control weed in the field. Applications should be made when weeds are at the correct size to minimize weed escapes.
- 6. Do not use more than two applications of this herbicide or any herbicide with the same mechanism of action within a single growing season unless mixed with another mechanism of action herbicide with overlapping spectrum for the difficult to control weeds.
- 7. Report any incidence of lack of efficacy of this product against a particular weed species to Syngenta or a Syngenta representative.

This list may be updated or revised as new information becomes available

[Master]

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators.

This labeling expires 12/20/2020. Do not use or distribute this product after 12/20/2020.

A21472 Plus VaporGrip® Technology must only be used for the uses specified on this label and only in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York (excluding Nassau and Suffolk Counties), North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas (excluding use on cotton in Gaines County), Virginia, West Virginia, Wisconsin

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

> HERBICIDE DICAMBA GROUP S-METOLACHLOR GROUP 15 HERBICIDE

Primary Brand Name:

A21472 Plus VaporGrip® Technology

Alternate Brand Name:

Tavium® Plus VaporGrip® Technology

Herbicide

ACCEPTED

04/05/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1623

Foliar systemic broadleaf herbicide with residual grass and certain broadleaf weed control for dicamba-tolerant cotton and soybeans and non-dicamba-tolerant soybeans

Active Ingredients:

Diglycolamine salt of dicamba*:	17.7%
S-metolachlor**:	24.0%
Other Ingredients:	58.3%
Total:	100.0%

*CAS No. 104040-79-1

A21472 Plus VaporGrip Technology is a capsule suspension (CS) formulation containing 1.12 pounds of dicamba acid equivalent (ae) and 2.26 pounds of S-metolachlor per U.S. gallon.

KEEP OUT OF REACH OF CHILDREN

^{**}CAS No. 87392-12-9

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-EPA Est.

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1.0 FIRST AID

FIRST AID		
If swallowed	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person. 	
If on skin or	Take off contaminated clothing.	
clothing	 Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. 	
·	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice. ct container or label with you when calling a poison control center or 	
doctor, or going for treatment.		
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal)		
Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident)		
Call		
1-800-888-8372		

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

2.2 Personal Protective Equipment (PPE)

All mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils
- Shoes plus socks

2.2.1 User Safety Requirements

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

2.2.2 Engineering Controls

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

2.2.3 User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

2.3 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate. Apply this product only as directed on the label.

2.3.1 Groundwater Advisory

S-metolachlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Dicamba is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

2.3.2 Surface Water Advisory

One of the active ingredients in A21472 Plus VaporGrip Technology, S-metolachlor, has the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredient may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, areas that frequently flood, areas overlaying extremely shallow ground water, areas with in-field canals or ditches

that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

2.3.3 Mixing/Loading Instructions

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or antisiphoning devices must be used on all mixing equipment.

- This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs.
- This product must not be mixed, loaded or used within 50 ft of all wells, including abandoned wells, drainage wells, and sink holes.
- Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling, or application equipment or containers within 50 ft of any well are prohibited, unless conducted on an impervious pad.
 - The pad must be constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad.
 - The pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rain water that may fall on the pad.
 - Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained.
 - The pad shall be sloped to facilitate material removal.
 - An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad.
 - A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad, shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad.
- Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

2.3.4 Endangered Species Concerns

Prior to making an application of this product on dicamba-tolerant cotton or dicamba-tolerant soybeans, an applicator must visit http://www.epa.gov/espp/ to determine if there are any additional restrictions on A21472 Plus VaporGrip Technology use within the area to be sprayed. Within the defined areas, in combination with the 110 foot infield wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law. Use of this product may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult http://www.epa.gov/espp/ or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

2.4 Physical or Chemical Hazards

Do not use or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

This is a restricted use pesticide.

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

This labeling expires 12/20/2020. Do not use or distribute this product after 12/20/2020.

Use A21472 Plus VaporGrip Technology only in accordance with specifications on this label, or in separately EPA-approved labeling instructions for this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR WEED CONTROL, AND/OR ILLEGAL RESIDUES.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant gloves made of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

3.0 PRODUCT INFORMATION

A21472 Plus VaporGrip Technology is a foliar systemic broadleaf herbicide with residual control of grass and certain broadleaf weeds in:

- dicamba-tolerant cotton (preplant, at-planting, preemergence, postemergence (In-crop) application)
- dicamba-tolerant soybeans (preplant, at-planting, preemergence, postemergence (Incrop) application)
- non-dicamba-tolerant soybeans (preplant application)

This product needs a minimum of ½ inch of either rainfall or irrigation following application to activate residual weed control. If rainfall or irrigation is not received within 10 days after application, residual weed control may be reduced. Under these conditions, cultivate or use other weed control measures if weeds develop.

Rainfall or irrigation occurring within 4 hours after postemergence application may reduce effectiveness.

3.1 Weed Resistance Management Practices

DICAMBA	GROUP	4	HERBICIDE
S-METOLACHLOR	GROUP	15	HERBICIDE

For resistance management, please note that A21472 Plus VaporGrip Technology contains both a Group 4/[dicamba] and a Group 15/[S-metolachlor] herbicide. Any weed population may contain plants naturally resistant to Group 4 and/or Group 15 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Contact your local Syngenta representative, retailer, crop advisor or extension agent to determine if weeds resistant to modes of action contained in this product are present in your area. Do not assume that each listed weed is being controlled by multiple modes of action. Premixes are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product. If resistant biotypes

have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank-mix with an additional different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

3.1.1 Principles of Herbicide Resistant Weed Management

Scout and know your field

- Know weed species present in the field to be treated through scouting and field history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Fields should be scouted prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the field.

Utilize non-herbicidal practices to add diversity

• Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.

Use good agronomic practices, start clean and stay clean

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

Difficult to control weeds

- Fields with difficult to control weeds should be planted in rotation with crops that allow the use of herbicides with an alternative mode of action or different management practices.
- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications.

Do not overuse the technology

 Do not use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with an herbicide with a different mode of action which provides overlapping spectrum for the difficult to control weeds.

Scout and inspect fields following application

- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields after application to verify that the treatment was effective.

- Suspected herbicide resistant weeds may be identified by these indicators
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.
- Report non-performance of this product to your Syngenta retailer, Syngenta representative, or call 1-866-Syngent(a) (866-796-4368). If resistance is suspected ensure weed escapes are controlled using an herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.

Prevent weed escapes before, during, and after harvest

Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest weed seed management and control weeds post-harvest to prevent seed production.

4.0 APPLICATION DIRECTIONS

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, applicator(s) must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of A21472 Plus VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.TaviumTankMix.com.

- 1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
 - a. The brand or product name
 - b. The EPA registration number
 - c. The total amount applied
 - d. The month, day, and year of application
 - e. The location of the application
 - f. The crop, commodity, stored product, or site of application

- g. The size of treated area
- h. The name of the certified applicator
- i. The certification number of the certified applicator
- 2. Training: Date and provider of required training completed and proof of completion.
- 3. Receipts of Purchase: Receipts or copies for the purchase of this product.
- 4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
- 5. Crop Planting Date: Record of the date at which the crop was planted.
- 6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 7.3.7.
- 7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 7.3.8 for additional information).
- 8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
- 9. Application Timing: Record of the type of application (for example: preemergence, postemergence) and number of days after planting if postemergence.
- 10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
- 11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 7.3 for information on wind speed).
- 12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 7.3.1 for information on nozzles and pressures.)
- 13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 4.7 for more information on tank mixing.)
- 14. Spray System Cleanout: Record of compliance with the section of this label titled Section 4.8: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 4.8.

4.3 Methods of Application

Applications with A21472 Plus VaporGrip Technology alone or in tank mixtures are permitted with ground equipment only. Preplant, at-planting, preemergence and postemergence (Incrop) applications are allowed as specified in **Section 9.0** unless otherwise restricted in **Section 7.1**.

4.4 Application Equipment

- Configure spray equipment to provide accurate and uniform coverage of the target area and minimize potential for spray drift.
- To ensure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult spray equipment manufacturers and/or state recommendations.
- Only use sprayers that provide accurate and uniform application with nozzles designed to
 produce extremely coarse to ultra-coarse droplets in order to minimize drift (Section
 7.3.1) and provide uniform coverage. The applicator must check the website found at
 www.TaviumTankMix.com for the list of nozzles approved for use with this product no
 later than seven days prior to application.
- Avoid using screens and strainers finer than 50-mesh.
- All ground application equipment must be properly maintained.
- All equipment must be washed to remove product residues after use (Section 4.8).

4.5 Application Volume and Spray Coverage

- For ground application, apply alone or in tank mixtures in a minimum of 15 gal/A of spray solution.
- Good spray coverage of emerged weeds is essential for optimum control.
- When weed vegetation is dense, increase spray volume and pressures to ensure coverage of the target weeds.
- Spray boom and nozzle heights must be adjusted to provide coverage of target weeds but not more than 24 inches above the target.

4.6 Equipment Ground Speed

Do not exceed a ground speed of 15 miles per hour. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

4.7 Mixing Directions

- A21472 Plus VaporGrip Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of A21472 Plus VaporGrip Technology The applicator must check the website found at www.TaviumTankMix.com no more than 7 days before applying A21472 Plus VaporGrip Technology.
- 2. Thoroughly clean spray equipment before using this product (**Section 4.8**). Dispose of the cleaning solution in a responsible manner.
- 3. Prepare no more spray mixture than is needed for the immediate operation.
- 4. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.
- 5. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions

must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

4.7.1 A21472 Plus VaporGrip Technology Alone

- 1. Fill the spray tank ½ to ¾ full with clean water.
- 2. Begin tank agitation and continue throughout mixing and spraying.
- 3. Add A21472 Plus VaporGrip Technology.
- 4. Add spray additives.
- 5. Fill the remainder of spray tank.
- 6. The tank mixture should be sprayed out as soon as it is prepared.

4.7.2 Tank-Mix Restrictions

- DO NOT tank mix products containing ammonium salts such as ammonium sulfate (AMS) and urea ammonium nitrate (UAN). Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 4.7) for instructions regarding other tank mix products.
- DO NOT tank mix any product with A21472 Plus VaporGrip Technology unless:
 - The intended tank-mix product is identified on the list of tested products found at www.TaviumTankMix.com;
 - The intended products are not prohibited on either this label or the label of the tank mix product; and
 - o All requirements and restrictions on www.TaviumTankMix.com; are followed.

4.7.3 Tank-Mix Precautions

- Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray
 mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments
 to avoid a low pH spray mixture (e.g., pH less than 5) can reduce the potential for
 volatilization to occur. Talk to your local agricultural consultant, extension agent, or
 Syngenta representative for recommendations to prevent low pH spray mixtures.
- Observe all precautions, directions for use and restrictions on the labels of each product used in tank mixtures.
- Follow the most restrictive label precautions and limitations.
- It is the pesticide user's responsibility to ensure that all products are registered for the
 intended use. Read and follow the applicable restrictions and limitations and directions
 for use on all product labels involved in tank mixing. Users must follow the most
 restrictive directions for use and precautionary statements of each product in the tank
 mixture.
- Do not tank mix products containing ammonium salts such as ammonium sulfate and urea ammonium nitrate.
- Tank mixes with other pesticides, fertilizers, or any other additives not specifically labeled for use with A21472 Plus VaporGrip Technology may result in tank mix incompatibility or unsatisfactory performance. In such cases, always check tank mix compatibility by conducting a jar test according to guidance in **Section 4.7.4** before actual tank mixing.

4.7.4 Tank-Mix Compatibility Test

- Conduct a jar test using a 1 pt to 1 qt container with lid by adding water or other intended carrier such as a liquid fertilizer to the jar.
- Next, add the appropriate amount of pesticide(s) or tank-mix partner(s) in their relative proportions based on label rates. Add tank-mix components separately in the order described in the tank-mixing section, **Section 4.7.5**. After each addition, shake or stir gently to thoroughly mix.
- After all ingredients have been added, put the lid on the jar, tighten and invert the jar 10 times to mix.
- After mixing, let the mixture stand 15 30 minutes and then examine for signs of incompatibility such as obvious separation, large flakes, precipitates, gels or heavy oily film on the jar.
- If the mixture remains mixed or can be remixed readily, it is physically compatible and can be used.
- If the mixture is incompatible, repeat the test using a compatibility agent at the label rate. Or, if applicable, slurry dry formulations in water before adding to the jar. If incompatibility is still observed after following these procedures, do not use the mixture.
- After compatibility testing is complete, dispose of any pesticide wastes in accordance with the storage and disposal section, Section 10.0, of this label.

4.7.5 A21472 Plus VaporGrip Technology In Tank Mixtures

- 1. Fill the spray tank $\frac{1}{2}$ to $\frac{2}{3}$ full with clean water.
- 2. Begin tank agitation and continue throughout mixing and spraying.
- 3. Be sure to allow each tank-mix component to fully disperse before adding the next one.
- 4. Add dry formulations (WP, DF, etc.) to tank.
- 5. Add A21472 Plus VaporGrip Technology.
- 6. Add liquid formulations (EC, SC, SL, etc.) to tank.
- 7. Add spray additives.
- 8. Fill remainder of spray tank.
- 9. The tank mixture should be sprayed out as soon as it is prepared.

4.7.6 Spray Additives

Spray additives may be appropriate for some tank mixes with A21472 Plus VaporGrip Technology. Refer to **Section 9.0** for specific instructions for the crop of interest.

4.8 Sprayer Cleanout

As part of the Restricted Use Product requirements, applicators must document that they have complied with the Sprayer Clean-out section of this label

Severe crop injury may occur if any of this product remains in the spray system equipment following an application and the equipment is subsequently used for application to sensitive crops. After using this product, clean all mixing and spray equipment (including tanks, pumps,

lines, filters, screens, and nozzles) with a strong detergent based sprayer cleaner. The rinsate must be disposed in compliance with local, state, and federal guidelines.

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

To avoid subsequent injury to other crops, thoroughly clean mixing and application equipment immediately after spraying. The following instructions are provided:

- 1. **Do not** clean sprayer near desirable vegetation, wells or other water sources.
- 2. Drain and flush tank walls, boom and all hoses with clean water.
- 3. Prepare a cleaning solution with a detergent or a commercial sprayer cleaner or ammonia according to the product's use directions.
- 4. Be sure to wash all internal parts of the tank, including the inside top surface with the cleaning solution. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
- 5. Flush hoses, spray lines and nozzles for at least one minute with the cleaning solution.
- 6. Repeat steps 3-5 for two additional times.
- 7. Remove nozzles, screens and strainers, and clean separately in the cleaning solution after completing the above procedures.
- 8. Drain lines, filters and sump.
- 9. Rinse the complete spraying system with clean water.
- 10. Clean and wash off the outside of the entire sprayer and boom.
- 11. Dispose of all rinsate according to local, state and federal regulation.

5.0 REPLANT AND ROTATIONAL CROP

5.1 Replanting Crop Restrictions for Cotton and Soybeans

Cotton and soybeans may be replanted at the specified interval following application of A21472 Plus VaporGrip Technology. Exclude counting days from application when the ground is frozen.

Crop	Replanting Interval
Dicamba-tolerant cotton Dicamba-tolerant soybeans	0 days
Non-dicamba-tolerant soybeans	28 days following a minimum accumulation of 1 inch of rainfall or overhead irrigation
Non-dicamba-tolerant cotton	42 days following a minimum accumulation of 1 inch of rainfall or overhead irrigation

5.2 Rotational Crop Restrictions

The following crops may be planted at the specified interval following application of A21472 Plus VaporGrip Technology. Exclude counting days from application when the ground is frozen.

Crop	Plant-Back Interval
Corn (field, pop, seed, sweet)	4 months
Barley	
Oats	4 ½ months
Rye	
Wheat	
Alfalfa	
Bean	
Beet	
Broccoli	
Brussels sprouts	
Cabbage	
Carrot	
Cauliflower	
Celery	
Garlic	
Lentil	
Onion	6 months
Pea	
Peanut	
Pepper	
Potato	
Pumpkin	
Radish	
Sorghum	
Sunflower	
Sugar beet	
Sweet potato	
Tomato	
Clover (seeded)	9 months
Buckwheat	
Rice	In the next spring following treatment
Tobacco	
All other crops not listed above	12 months

6.0 COVER CROPS

A cover crop can be an important tool for the overall farm cropping system. Cover crops are planted for conservation purposes, soil erosion control, soil health improvement, water quality improvement and weed management. A cover crop can be a single crop or a combination of crops, including grasses and/or broadleaf crops.

After harvest of an A21472 Plus VaporGrip Technology treated crop, planting of a cover crop is allowed, provided the cover crop is not grazed or fed to livestock nor harvested for food. Terminate the cover crop through natural causes, such as frost or intentional termination by herbicide application, crimping, rolling, tillage or cutting.

All possible cover crops or cover crop combinations have not been tested for tolerance to this product. Before planting the cover crop, determine the level of tolerance for the intended cover crops by conducting a field bioassay. Refer to **Section 6.1** for instructions on how to conduct a field bioassay.

6.1 Field Bioassay for Cover Crops

A field bioassay is a method of determining if herbicide residues are present in the soil at concentrations high enough to adversely affect crop growth.

Conduct the field bioassay by planting several strips of the desired cover crop across the field which has been previously treated with A21472 Plus VaporGrip Technology. Plant the cover crop strips perpendicular to the direction of the product application. Locate the strips so that all the different field conditions are encountered, including differences in field terrain, soil texture, organic matter, pH, and drainage.

If the cover crop does not show adverse effects such as crop injury and/or stand reduction, the field can be planted to this cover crop. If injury and/or stand reduction are visible, wait two to four weeks for further herbicide degradation to occur and repeat the bioassay. Alternatively, select a different cover crop and repeat the bioassay. Only plant cover crops that show acceptable tolerance in the field bioassay.

7.0 RESTRICTIONS AND PRECAUTIONS

7.1 Use Restrictions

- DO NOT sell, use or distribute this product in Nassau and Suffolk Counties in the State of New York.
- DO NOT use in nurseries, turf, or landscape plantings.
- **DO NOT** apply this product by air.
- DO NOT apply this product through any type of irrigation system.
- DO NOT apply this product at ground speed greater than 15 miles per hour.
- **DO NOT** apply this product in less than 15 gallons of spray solution per acre.
- DO NOT exceed a boom height of 24 inches above target pest or crop canopy when applying this product.
- **DO NOT** apply this product when the wind speeds are less than 3 mph or greater than 10 mph.
- DO NOT apply this product until at least one hour after sunrise and no later than two hours before sunset.
- **DO NOT** apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow.
- DO NOT apply under conditions which favor runoff or wind erosion of soil containing this
 product to nontarget areas.

- **DO NOT** tank mix products containing ammonium salts such as ammonium sulfate and urea ammonium nitrate.
- **DO NOT** graze or feed to livestock, or harvest for food, any cover crop planted following an A21472 Plus VaporGrip Technology treated crop.
- **DO NOT** apply to frozen ground.
- DO NOT apply to any body of water.
- **DO NOT** contaminate irrigation ditches.
- **DO NOT** apply this product if rainfall that could exceed soil field capacity and result in soil runoff is expected in the next 24 hours.
- **DO NOT** apply to powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, you must ensure that the soil surface is first settled by rainfall or irrigation prior to application.
- **DO NOT** apply to impervious substrates, such as paved or highly compacted surfaces.
- **DO NOT** use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- Prior to making an application of this product on dicamba-tolerant cotton or dicamba-tolerant soybeans, an applicator must visit http://www.epa.gov/espp/ to determine if there are any additional restrictions on A21472 Plus VaporGrip Technology use within the area to be sprayed. Within the defined areas, in combination with the 110 foot infield wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species.

A21472 Plus VaporGrip Technology must only be used for the uses specified on this		
label and only in the following states, subject to county restriction as noted		
Alabama	Missouri	
Arkansas	Nebraska	
Arizona	New Jersey	
Colorado	New Mexico	
Delaware	New York (excluding Nassau & Suffolk Counties)	
Florida (excluding Palm Beach County)	North Carolina	
Georgia	North Dakota	
Illinois	Oklahoma	
Indiana	Ohio	
Iowa	Pennsylvania	
Kansas	South Carolina	
Kentucky	South Dakota	
Louisiana	Tennessee (excluding Wilson County)	
Maryland	Texas (excluding use on cotton in Gaines	
	County)	
Michigan	Virginia	
Minnesota	West Virginia	
Mississippi	Wisconsin	

This product must only be used in the states listed above and is subject to area specific restrictions as required by http://www.epa.gov/espp/ that must be consulted prior to making an application in dicamba-tolerant cotton or dicamba-tolerant soybeans.

7.2 Use Precautions

- A21472 Plus VaporGrip Technology requires actively growing green plant tissue to function fully for postemergence weed control. Application to drought-stressed weeds or weeds with little green foliage (i.e., mowed, cut, or hailed on weeds); weeds covered with dust; weeds damaged by insects or diseases may result in reduced weed control.
- Drift may cause damage to nontarget vegetation.
- Avoid spray overlap, as crop injury may result.
- Before planting a cover crop, determine the level of tolerance for the intended cover crop to A21472 Plus VaporGrip Technology by conducting a field bioassay (Section 6.1).
- Thoroughly clean the spray system using either a solution of water/strong detergent or a commercially available tank cleaner after each use (Section 4.8).

7.3 Spray Drift Management

- Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is less than 3 mph or greater than 10 mph or during periods of temperature inversions.
- AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.
- The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering these factors when making a decision.
- This pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, nontarget plants) is minimal (i.e., when the wind is blowing away from the sensitive area).
- Consult with local and State agricultural authorities for information regarding avoiding or minimizing spray drift.

7.3.1 Importance of Droplet Size

- The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Use only nozzles producing extremely coarse to ultra-coarse droplets as defined by the American Society of Agricultural and Biological Engineers (ASABE) S-572.2. See www.TaviumTankMix.com for the list of nozzles approved for use with this product.
- Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

7.3.2 Controlling Droplet Size

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume not less than 15 gallons per acre. Nozzles with higher rated flows produce larger droplets.
- Pressure DO NOT exceed the nozzle manufacturer's specified pressures or maximum pressures as listed for specific nozzles on www.TaviumTankMix.com. For many nozzle

types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure. If sprayer is equipped with rate controller hardware, ensure it does not allow pressure increases that exceed the desired range.

 Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.

7.3.3 Application Height

Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but do not exceed a boom height of 24 inches above target pest or crop canopy. Excessive boom height will increase the drift potential.

7.3.4 Wind

Drift potential is lowest when wind speeds are 3 to 10 mph. **DO NOT** apply this product when the wind speed is less than 3 mph or greater than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **NOTE:** Local terrain can influence wind patterns.

7.3.5 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.TaviumTankMix.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

7.3.6 Temperature Inversions

- DO NOT apply during a temperature inversion, because drift potential is high.
 Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions, due to the light variable winds common during inversions.
- **DO NOT** apply this product until at least one hour after sunrise and no later than two hours before sunset.
- Temperature inversions are characterized by increasing temperatures with altitude, and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions
 can also be identified by the movement of smoke from a ground source or an aircraft
 smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under
 low wind conditions) indicates an inversion, while smoke that moves upward and rapidly
 dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

7.3.7 Sensitive Areas

- DO NOT apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or the crops thereof may be rendered unfit for sale, use or consumption.
- Apply A21472 Plus VaporGrip Technology only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (i.e., when wind is blowing away from the sensitive areas).
- When applying this product a 110-foot downwind buffer must be maintained between the last treated row, and the closest downwind edge (in the direction in which the wind is blowing).
- To maintain this required buffer zone, no application swath can be initiated in, or into an area that is within the applicable buffer distance.
- The following areas may be included in the buffer distance calculation when adjacent to field edges:
 - Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights-of-ways.
 - O Planted agricultural fields containing: corn, dicamba-tolerant cotton, dicamba-tolerant soybeans, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba-tolerant cotton and/or dicamba-tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba-tolerant and not conventional cotton and/or soybeans.
 - o Agricultural fields that have been prepared for planting.
 - Areas covered by the footprint of a building, silo, or other man-made structure with walls and/or roof.
- Applicators are required to ensure that they are aware of the proximity to sensitive areas, to avoid potential adverse effects from off-target movement of A21472 Plus VaporGrip Technology.

7.3.8 Sensitive Crops

To protect sensitive crops, the following restrictions must be followed.

- Before making an application, the applicator must survey the application site for adjacent nontarget sensitive crops. The applicator must also consult applicable sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.
- DO NOT APPLY this product when the wind is blowing toward adjacent non-dicambatolerant sensitive crops; this includes NON-DICAMBA-TOLERANT SOYBEAN AND COTTON.

• During application and sprayer clean-out DO NOT allow contact of herbicide with foliage, green stems, exposed non-woody roots of crops, and desirable plants.

In addition to the required 110 foot down wind spray buffer, additional protections are required for dicamba sensitive crops. DO NOT apply when wind is blowing in the direction of neighboring sensitive crops.

The applicator must be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent sensitive crops, the applicator must STOP the application.

Crops known to be sensitive include but are not limited to:

- non-dicamba-tolerant soybeans
- non-dicamba-tolerant cotton
- EPA Crop Group 6 (peas and beans)
- EPA Crop Group 8 (fruiting vegetables including peppers and tomatoes)
- EPA Crop Group 9 (cucurbit group including cucumbers and melons)
- flowers
- fruit trees
- grapes
- ornamental plantings including broadleaf ornamentals grown in greenhouses and shadehouses
- other broadleaf plants
- peanuts
- potatoes
- sweet potatoes
- sunflower
- tobacco

Sensitive Crops may be severely injured or killed if they are contacted by this product.

8.0 WEEDS CONTROLLED BY A21472 PLUS VAPORGRIP TECHNOLOGY

8.1 Weeds Controlled by A21472 Plus VaporGrip Technology Applied Prior to Weed Emergence

Common Name	Scientific Name
Amaranth, Palmer	Amaranthus palmeri
Amaranth, Powell	Amaranthus powellii
Barnyardgrass	Echinochloa crus-galli
Crabgrass, large	Digitaria ischaemum
Crabgrass, smooth	Digitaria sanguinalis

Common Name	Scientific Name
Crowfootgrass	Dactyloctenium aegyptium
Foxtail, giant	Setaria faberi
Foxtail, green	Setaria viridis
Foxtail, yellow	Setaria pumila
Goosegrass	Eleusine indica
Nightshade, Eastern black	Solanum ptychanthum
Panicum, fall	Panicum dichotomiflorum
Pigweed, prostrate	Amaranthus blitoides
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Pigweed, tumble	Amaranthus albus
Pusley, Florida	Richardia scabra
Signalgrass, broadleaf	Urochloa platyphylla
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatus
Witchgrass	Panicum capillare

8.2 Weeds Controlled by A21472 Plus VaporGrip Technology Applied Postemergence to Weeds

Common Name	Scientific Name
Amaranth, Palmer	Amaranthus palmeri
Amaranth, Powell	Amaranthus powellii
Amaranth, spiny	Amaranthus spinosus
Beggarweed, Florida	Desmodium tortuosum
Buckwheat, wild	Polygonum convolvulus
Buffalobur	Solanum rostratum
Burcucumber	Sicyos angulatus
Buttercup	Ranunculus spp.
Carpetweed	Mullugo verticillata

Common Name	Scientific Name
Chickweed, common	Stellaria media
Cocklebur, common	Xanthium strumarium
Copperleaf, hophornbeam	Acalypha ostryifolia
Croton, tropic	Croton glandulosus
Cutleaf eveningprimrose	Oenothera laciniata
Falseflax, smallseed	Camelina microcarpa
Fleabane, annual	Erigeron annus
Goosefoot, nettleleaf	Chenopodium murale
Henbit	Lamium amplexicaule
Horseweed/Marestail	Conyza canadensis
Jimsonweed	Datura stramonium
Knotweed, prostate	Polygonum aviculare
Kochia	Kochia scoparia
Lambsquarters, common	Chenopodium album
Lettuce, prickly	Lactuca serriola
Mayweed	Anthemis cotula
Morningglory, ivyleaf	Ipomoea hederacea.
Morninglglory, tall	Ipomoea purpurea
Mustard, black	Brassica nigra
Mustard, blue	Chorispora tenella
Mustard, tansy	Descurainia pinnata
Mustard, tumble	Sisymbrium altissimum
Mustard, wild	Brassica kaber
Nightshade, black	Solanum nigrum
Nightshade, cutleaf	Solanum triflorum
Pennycress, field	Thlaspi arvense
Pepperweed, Virginia	Lepidium virginicum
Pigweed, prostrate	Amaranthus, blitoides
Pigweed, redroot	Amaranthus retroflexus

Common Name	Scientific Name	
Pigweed, smooth	Amaranthus hyrbidus	
Pigweed, tumble	Amaranthus, albus	
Prickly sida (Teaweed)	Sida spinosa	
Puncturevine	Tribulus terrestris	
Purslane, common	Portulaca oleracea	
Pusley, Florida	Richardia scabra	
Ragweed, common	Ambrosia artemisiifolia	
Ragweed, giant	Ambrosia trifida	
Rocket, London	Sisymbrium irio	
Sesbania, hemp	Sesbania exaltata	
Shepherd's purse Capsella bursa-pastoris		
Sicklepod	Senna obtusifolia	
Smartweed (lady's thumb)	Polygonum persicaria	
Smartweed, Pennsylvania	Polygonum pensylvanicum	
Sowthistle, annual	Sonchus oleraceus	
Spanish needles	Bidens bipinnata	
Spurge, prostrate	Euphorbia humistrata	
Spurge, leafy	Euphorbia esula	
Spurry, corn	Spergula arvensis.	
Sunflower, common	Helianthus annuus	
Thistle, Canada	Cirsium arvense	
Thistle, Russian	Salsola iberica	
Velvetleaf	Abutilon theophrasti	
Waterhemp, common	Amaranthus rudis	
Waterhemp, tall	Amaranthus tuberculatus	

9.0 CROP USE DIRECTIONS

9.1 Cotton

9.1.1 Dicamba-Tolerant Cotton – Preplant, At-Planting, Preemergence or Postemergence (In-Crop) Application

Стор					
Dicamba-tolerant	Dicamba-tolerant cotton				
Target Weeds	Rate (fl oz/A)	Application Timing	Use Directions		
Weeds listed in Section 8.1 & 8.2	56.5	Preplant Application: Apply prior to planting crop. At-Planting and Preemergence Application Apply during planting or after planting but before crop emergence.	Use only in: AR, KS, LA, MS, NM, OK, TN (excluding Wilson County), TX (excluding Gaines County) and the Boot Heel of MO. Preplant applications are especially suitable for minimum tillage or no-tillage systems. For grass weed control apply before grass weeds emerge or after clean cultivation. For application at planting, apply behind the planter. For emerged broadleaf weeds apply as a broadcast spray to small weeds that are less than 4 inches in height.		
		Postemergence (In-crop) Application In-crop applications can be made over-the-top of dicamba-tolerant cotton through 6-leaf cotton or within 60 days after planting, whichever comes first.	Use only in: AL, AR, AZ, FL (excluding Palm Beach County), GA, KS, LA, MO, MS, NC, NM, OK, SC, TN (excluding Wilson County), TX (excluding Gaines County), VA. Apply as a postemergence broadcast spray to small broadleaf weeds that are less than 4 inches in height. If at least ½ inch of rainfall does not occur within 10 days after application, cultivate shallowly.		

Sequentially:
Preplant, At-Planting or
Preemergence followed by
Postemergence (In-crop)
Application on dicambatolerant cotton.

Crop canopy interference can reduce spray coverage on target weeds and soil, and hinder weed control. Use higher spray volumes (greater than 15 gallons per acre) under these conditions.

For grass weed control, apply before grass weeds emerge or after clean cultivation.

An integrated program using preemergence residual herbicides such as Caparol® 4L, followed by a postemergence application of A21472 Plus VaporGrip Technology will provide optimal weed control.

Tank-Mix Options:

 Refer to Section 9.1.2 for tank-mix options and spray additives with A21472 Plus VaporGrip Technology.

Resistance Management:

Refer to Section 3.1

Precautions:

- For preplant application, to the extent possible, avoid moving treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.
- If heavy rainfall occurs soon after application, crop injury may occur. Injury will be more severe in poorly drained areas where water stands for several hours or days, or where the seeding slit has not been properly closed.

USE RESTRICTIONS

- 1) Refer to **Section 7.1** for additional product use restrictions.
- Maximum Single Application Rate: 56.5 fl oz/A (equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A)
- 3) Maximum Annual Rate: 113 fl oz/A/year
 - a. **DO NOT** exceed 1.9 lb ai/A/year of S-metolachlor-containing products on coarse-textured soils.
 - b. **DO NOT** exceed 2.48 lb ai/A/year of S-metolachlor-containing products on medium- or fine-textured soils.
 - c. **DO NOT** exceed 2.0 lb ae/A/year of dicamba-containing products.
- DO NOT apply less than 56.5 fl oz of this product/A (equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A).
- 5) **DO NOT** make more than one preplant or at-planting or preemergence application, and/or one postemergence (In-crop) application on medium-or fine-textured soils.
- 6) **DO NOT** make more than one application on coarse-textured soils.
- 7) **DO NOT** use on sand or loamy sand soils.
- 8) DO NOT use on Taloka silt loam.
- 9) **DO NOT** use where water is likely to "pond" over the bed.
- 10) **DO NOT** apply to non-dicamba-tolerant cotton.
- 11) **DO NOT** incorporate A21472 Plus VaporGrip Technology if applied prior to planting, or crop injury may result.
- 12) **DO NOT** use in Gaines County, TX; Wilson County, TN; or Palm Beach County, FL.
- 13) **DO NOT** graze or feed treated forage or fodder to livestock.
- 14) **Pre-harvest Interval (PHI):** 100 days

9.1.2 Tank-Mix Combinations for Dicamba-Tolerant Cotton

Application	Tank-Mix Brands	Use Directions	
Preplant At-planting Preemergence Postemergence	A21472 Plus VaporGrip Technology may only be tank mixed with products that have been tested and found not to adversely affect the spray drift properties	Apply as directed according to this label and the labels of tank-mix partners.	
	of A21472 Plus VaporGrip Technology. A list of those approved tank-mix products may be found at the following website: www.TaviumTankMix.com.	Spray Additives: Although not required, spray additives may be added to improve control of emerged weeds according to the guidance below:	
		In all applications with additives, A21472 Plus VaporGrip Technology may only be tank mixed with additives that have been tested and found not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology. A list of those approved tank-mix additives may be found at the following website: www.TaviumTankMix.com.	
		For preplant, at-planting and preemergence applications, the following additives may be used:	
		Nonionic Surfactant (NIS) - Use NIS containing at least 80% active ingredient at 0.25% v/v (1 qt/100 gal) of the finished spray volume.	
		Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) – Use a nonphytotoxic COC or MSO containing 15–20% approved emulsifier at 0.5–1.0% v/v (2-4 qt/100 gal) of the finished spray volume.	
		For postemergence applications, use of a Nonionic Surfactant (NIS) additive described above is allowed.	
		Use of a Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) for postemergence applications is not advised due to the potential for crop injury.	

Precautions:

- Drift reduction agents that are on the approved tank-mix website may be used. Drift reduction agents can reduce the percentage of driftable fines. Ensure that the drift reduction agent is effective with the spray nozzle and spray pressure set-up.
- The addition of spray additives to over-the-top applications in dicamba-tolerant cotton may cause some leaf spotting/necrosis. Cotton will fully recover from these transient effects and develop normally.

TANK-MIX USE RESTRICTIONS

- 1. All use restrictions cited in **Section 9.1.1** apply to tank-mixes with A21472 Plus VaporGrip Technology.
- 2. For all tank mixtures, refer to individual product labels for precautionary statements, restrictions, rates, approved uses, rotational restrictions and a list of weeds controlled. Follow the most restrictive label.
- 3. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- 4. **DO NOT** tank mix products containing ammonium salts such as ammonium sulfate and urea ammonium nitrate.

9.2 Soybean

9.2.1 Dicamba-Tolerant Soybeans – Preplant, At-Planting, Preemergence or Postemergence (In-Crop) Application

Сгор				
Dicamba-tolerant soybeans				
Target Weed	Rate (fl oz/A)	Application Timing	Use Directions	
Weeds listed in Section 8.1 & 8.2	56.5	Preplant Application: Apply prior to planting crop. At-Planting and Preemergence Application: Apply during planting or after planting but before crop emergence.	For use only in States specified in Section 7.1. This product must not be used in a county that has been explicitly prohibited on this label. For Preplant, At-Planting or Preemergence applications:	
		Postemergence (In-crop) Application	Preplant applications are especially suitable for minimum tillage or no-tillage systems.	
		In-crop applications can be made over-the-top of dicambatolerant soybeans through V4 soybeans or within 45 days after	For application at planting or preemergence, apply behind the planter.	
		planting, whichever comes first. No applications can be made to double crop soybeans.	For grass weed control, apply before grass weeds emerge or after clean cultivation.	
		Sequentially: Preplant, At-Planting or Preemergence followed by Postemergence (In-crop) application on dicamba-tolerant soybeans.	For emerged broadleaf weeds, apply as a broadcast spray to small weeds that are less than 4 inches in height.	
			For Postemergence Applications:	
			For emerged broadleaf weeds, apply as a broadcast spray to small weeds that are less than 4 inches in height.	
			For grass weed control, apply before grass weeds emerge.	
			Crop canopy interference can reduce spray coverage on target weeds and	

soil, and hinder weed control. Use higher spray volumes (greater than 15 gallons per acre) under these conditions.

An integrated program using preemergence residual herbicides such as Boundary®, Prefix® Herbicide or BroadAxe® XC Herbicide, followed by a postemergence application of A21472 Plus VaporGrip Technology will provide optimal weed control.

Dicamba-tolerant soybeans may exhibit leaf drooping following postemergence application. This response is transient and the soybeans will fully recover.

Tank-mix Options:

• Refer to **Section 9.2.2** for tank-mix options and spray additives with A21472 Plus VaporGrip Technology.

Resistance Management:

Refer to Section 3.1

USE RESTRICTIONS

- 1) Refer to **Section 7.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: 56.5 fl oz/A (equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A)
- 3) Maximum Annual Rate: 113 fl oz/A/year
 - a. **DO NOT** exceed 2.48 lb ai/A/year of S-metolachlor-containing products.
 - b. **DO NOT** exceed 2.0 lb ae/A/year of dicamba-containing products.
- 4) **DO NOT** apply less than 56.5 fl oz of this product/A (equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A).
- 5) **DO NOT** make more than one preplant or at-planting or preemergence application, and/or one postemergence (In-crop) application.
- 6) Only make applications to soybeans that contain the dicamba-tolerant trait.
- 7) **DO NOT** feed treated forage or hay to livestock for 30 days following a preplant, at-planting, or preemergence application.
- 8) **DO NOT** graze or feed treated forage or hay to livestock following a postemergence application.
- 9) Pre-harvest Interval (PHI): 90 days

9.2.2 Tank-Mix Combinations for Dicamba-Tolerant Soybeans

Application	Tank-Mix Brands	Use Directions
Preplant At-planting Preemergence Postemergence	A21472 Plus VaporGrip Technology may only be tank mixed with products that have been tested and found not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology. A list of those approved tank-mix products may be found at the following website: www.TaviumTankMix.com.	Apply as directed according to this label and the labels of tank-mix partners. Spray Additives: Although not required, spray additives may be added to improve control of emerged weeds according to the guidance below: In all applications with additives, A21472 Plus VaporGrip Technology

may only be tank mixed with additives that have been tested and found not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology. A list of those approved tank-mix additives may be found at the following website: www.TaviumTankMix.com.

For preplant, at-planting and preemergence applications, the following additives may be used:

Nonionic Surfactant (NIS) - Use NIS containing at least 80% active ingredient at 0.25% v/v (1 qt/100 gal) of the finished spray volume.

Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) – Use a nonphytotoxic COC or MSO containing 15–20% approved emulsifier at 0.5–1.0% v/v (2-4 qt/100 gal) of the finished spray volume.

For postemergence applications, use of a Nonionic Surfactant (NIS) additive described above is allowed.

Use of a Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) for postemergence applications is not advised due to the potential of crop injury.

Precautions:

- Drift reduction agents that are on the approved tank-mix website may be used. Drift reduction agents
 can reduce the percentage of driftable fines. Ensure that the drift reduction agent is effective with the
 spray nozzle and spray pressure set-up.
- The addition of spray additives to over-the-crop applications in dicamba-tolerant soybeans may cause some leaf spotting/necrosis. Soybeans will fully recover from these transient effects and develop normally.

TANK-MIX USE RESTRICTIONS

- 1. All use restrictions cited in **Section 9.2.1** apply to tank-mixes with A21472 Plus VaporGrip Technology.
- 2. For all tank mixtures, refer to individual product labels for precautionary statements, restrictions, rates, approved uses, rotational restrictions and a list of weeds controlled. Follow the most restrictive label.
- 3. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- 4. **DO NOT** tank mix products containing ammonium salts such as ammonium sulfate and urea ammonium nitrate.

9.2.3 Non-Dicamba-Tolerant Soybeans – Preplant Application

Стор				
Non-dicamba-tole	Non-dicamba-tolerant soybeans			
Target Weed	Rate (fl oz/A)	Application Timing	Use Directions	
Weeds listed in Section 8.1 & 8.2	56.5	Preplant Application: Apply prior to planting crop.	Following a preplant application and a minimum accumulation of one inch of rainfall or overhead irrigation, a waiting period of 28 days is required before planting non-dicamba-tolerant soybeans, or crop injury may occur. Preplant applications are especially suitable for minimum tillage or no-tillage systems. For grass weed control, apply before grass weeds emerge or after clean cultivation. For emerged broadleaf weeds, apply as a broadcast spray to small weeds that are less than 4 inches in height.	

Tank-mix Options:

 Refer to Section 9.2.4 for tank-mix options and spray additives with A21472 Plus VaporGrip Technology.

Resistance Management

• Refer to Section 3.1

USE RESTRICTIONS

- 1) Refer to **Section 7.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:** 56.5 fl oz/A (equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A)
- 3) Maximum Annual Rate: 56.5 fl oz/A/year
 - a. **DO NOT** exceed 2.48 lb ai/A/year of S-metolachlor-containing products.
 - b. **DO NOT** exceed 2.0 lb ae/A/year of dicamba-containing products.
- 4) **DO NOT** apply less than 56.5 fl oz of this product/A (equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A).
- 5) **DO NOT** make more than one preplant application.
- 6) **DO NOT** feed treated forage or hay to livestock for 30 days following a preplant application.
- 7) Pre-harvest Interval (PHI): 90 days

9.2.4 Tank-Mix Combinations for Non-Dicamba-Tolerant Soybeans

Application	Tank-Mix Brands	Use Directions
Preplant	A21472 Plus VaporGrip Technology may only be tank mixed with products that have been tested and found not to adversely affect the spray drift properties of A21472 Plus VaporGrip Technology. A list of those approved tank-mix products may be found at the following website: www.TaviumTankMix.com.	Apply as directed according to this label and the labels of tank-mix partners. Spray Additives: Although not required, one of the following spray additives may be added to improve control of emerged broadleaf weeds:

Nonionic Surfactant (NIS) - Use NIS containing
at least 80% active ingredient at 0.25% v/v (1
qt/100 gal) of the finished spray volume.

Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) – Use a nonphytotoxic COC or MSO containing 15–20% approved emulsifier at 0.5–1.0% v/v (2-4 qt/100 gal) of the finished spray volume.

Precaution:

• Drift reduction agents that are on the approved tank-mix website may be used. Drift reduction agents can reduce the percentage of driftable fines. Ensure that the drift reduction agent is effective with the spray nozzle and spray pressure set-up.

TANK-MIX USE RESTRICTIONS

- 1. All use restrictions cited in **Section 9.2.3** apply to tank-mixes with A21472 Plus VaporGrip Technology.
- 2. For all tank mixtures, refer to individual product labels for precautionary statements, restrictions, rates, approved uses, rotational restrictions and a list of weeds controlled. Follow the most restrictive label.
- 3. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- 4. **DO NOT** tank mix products containing ammonium salts such as ammonium sulfate and urea ammonium nitrate.

10.0 STORAGE AND DISPOSAL

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Keep container closed to prevent spills and contamination.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling (less than or equal to 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling (greater than 5 gallons)

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling (greater than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

11.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold Syngenta and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

12.0 APPENDIX [Optional Text]

12.1 A21472 Plus VaporGrip Technology Use Summary Table [Optional Text]

[Start of Optional Text]

IMPORTANT: The table below is a summary of the Crop Use Directions for A21472 Plus VaporGrip Technology. However, it is important for the user to read and follow the complete instructions contained within this label.

Crop or Crop Group or Subgroup with examples	Maximum A21472 Plus VaporGrip Technology Rate per Application (fl oz/A)	Application	Pre-Harvest Interval (PHI days)	Maximum A21472 Plus VaporGrip Technology Rate per Year (fl oz/A)
Dicamba-Tolerant Cotton	56.5 ¹	NA	100	113²
Dicamba-Tolerant Soybeans	56.5 ¹	NA	90	113²
Non-Dicamba- Tolerant Soybeans	56.5 ¹	NA	90	56.5 ¹

¹ 56.5 fl oz/A is equivalent to 0.5 lb dicamba ae/A and 1.0 lb S-metolachlor/A

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Plus VaporGrip® Technology is a trademark of Monsanto Technology LLC.

BroadAxe® is a trademark of FMC Corporation.

Viton® is a trademark of E. I. duPont de Nemours and Company, Inc.

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC

² 113 fl oz/A is equivalent to 1 lb dicamba ae/A and 2.0 lb S-metolachlor/A [End of Optional Text]

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