



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

November 18, 2024

Matt Feinberg
Product Registration Manager
BASF CORPORATION
26 DAVIS DRIVE
P.O. Box 13528
RESEARCH TRIANGLE PARK, NC 27709

Subject: Label Amendment – Revise label and add Topramezone registration review
Product Name: ARMEZON HERBICIDE
EPA Registration Number: 7969-262
Application Date: 03/29/2022; 05/02/2024
Case Number: 00475901; 00610710

Dear Matt Feinberg:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Topramezone Final and/or Interim Decision, and has concluded that your submission is acceptable.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. 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. Therefore, 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 approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Hector Escobar at 202-566-1371 or at escobar.hector@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kable Bo Davis', enclosed within a simple oval outline.

Kable Bo Davis
Senior Advisor
Office of Pesticide Programs
Registration Division, Immediate Office

Enclosure

{NOTE TO REVIEWER: Text within [brackets] indicates optional text.}



We create chemistry

Topramezone

Group

27

Herbicide

Armezon®

Herbicide

ACCEPTED

11/18/2024

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under

EPA Reg. No. 7969-262

**For postemergence weed control in all types of field corn,
popcorn, sweet corn, sugarcane, between crop applications,
and African marigold production**

Active Ingredient:

topramezone: [3-(4,5-dihydro-isoxazolyl)-2-methyl-4-(methylsulfonyl)

phenyl](5-hydroxy-1-methyl-1*H*-pyrazol-4-yl)methanone 29.7%

Other Ingredients: 70.3%

Total: 100.0%

1 gallon contains 2.8 pounds of topramezone free acid.

EPA Reg. No. 7969-262

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en
detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside booklet for complete **First Aid, Precautionary Statements, Directions For
Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site
restrictions.

**In case of an emergency endangering life or property involving this product,
call day or night 1-800-832-HELP (4357).**

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give anything to an unconscious person.
If on skin	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, natural rubber (includes natural rubber blends and laminates) \geq 14 mils, polyethylene, polyvinyl chloride (PVC) \geq 14 mils, or viton \geq 14 mils
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft 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.

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 disposing of equipment washwater or rinsate. **DO NOT** apply this product through any type of irrigation system.

Product must be used in a manner which will prevent back-siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures, or rinsate.

Nontarget Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of nontarget organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of nontarget organisms by following label directions intended to minimize spray drift.

Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as a high potential for reaching both surface water and aquatic sediment via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of

topramezone and its transformation products from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at time of herbicide application.

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.

Observe all precautions and limitations in this label and the labels of products used in combination with **Armezon® herbicide**. The use of **Armezon** not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions, and **Conditions of Sale and Warranty** are to be followed.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing, or preparing custom blends with other products for application in crops.

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.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 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
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber (includes natural rubber blends and laminates) ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

Pesticide Storage

Store product in original container only. Store product in a cool, dry place. **DO NOT** store this product under wet conditions. If this product has been stored where freezing temperatures have occurred, agitate or mix contents of container well before use. Avoid cross-contamination with other pesticides.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable [Plastic] Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse [plastic] containers small enough to shake (capacity ≤ 5 gallons) 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 1/4 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.

Triple rinse [plastic] containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

(continued)

STORAGE AND DISPOSAL *(continued)*

Container Handling *(continued)*

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% 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.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

Spills

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if this material is released into the environment or spilled:

- Wear **Personal Protective Equipment (PPE)** and avoid exposure when managing a spill. (See **Precautionary Statements** section of this label for required PPE.)
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before reuse.
- Keep spill out of all sewers and open bodies of water.

Product Information

Armezon® herbicide is a suspension concentrate (SC) herbicide providing systemic postemergence control or growth suppression of emerged broadleaf and grass weeds in field corn (grown for grain, silage, or seed), popcorn (grown for ear, kernel, or seed), sweet corn (grown for ear, kernel, or seed), sugarcane, between crop applications, and African marigold production. This product may be used on conventional and herbicide-resistant/tolerant corn hybrids. BASF has not tested all inbred lines for tolerance to **Armezon**. Before using **Armezon**, refer to seed company instructions for use on inbred lines of field corn, popcorn, and sweet corn.

When applied postemergence as directed, **Armezon** will control or suppress the broadleaf weeds listed in **Table 1** and the grass weeds listed in **Table 2**.

To increase weed control spectrum for use in corn, tank mix **Armezon** with 0.25 lb to 1.5 lbs active ingredient of atrazine herbicide per acre. Use the lower rates of atrazine for added burndown of emerged weeds and the higher labeled rates for added weed residual control.

Armezon applications must include spray additives. See **Additives** and **Mixing Order** for details.

Table 1. Broadleaf Weeds Controlled Postemergence Broadcast(including ALS-resistant¹, glyphosate-resistant, PPO-resistant, auxin agonist-resistant, and triazine-resistant biotypes)

Common Name	Scientific Name	Armezon® herbicide Application Rate	
		0.5 fl oz/A	0.75 to 2.0 fl ozs/A
		Maximum Weed Size ² (inches)	
Amaranth, Palmer	<i>Amaranthus palmeri</i>	4	6
Amaranth, Powell	<i>Amaranthus powellii</i>	4	6
Burcucumber	<i>Sicyos angulatus</i>	4	6
Canola, volunteer	<i>Brassica</i> spp.	4	6
Carpetweed	<i>Mollugo verticillata</i>	4	6
Chickweed, common	<i>Stellaria media</i>	2	4
Cocklebur, common	<i>Xanthium strumarium</i>	5	8
Dandelion	<i>Taraxacum officinale</i>	–	6*
Galinsoga, hairy	<i>Galinsoga ciliata</i>	4	6
Henbit	<i>Lamium amplexicaule</i>	3	4
Horseweed (Marestail)	<i>Conyza canadensis</i>	4	6
Jimsonweed	<i>Datura stramonium</i>	4	6
Kochia	<i>Kochia scoparia</i>	4	6
Lambsquarters, common	<i>Chenopodium album</i>	4	6
Lettuce, prickly	<i>Latuca serriola</i>	2	4
Mallow, common	<i>Malva neglecta</i>	2	3
Mallow, Venice	<i>Hibiscus trionum</i>	2*	3*
Morningglory	<i>Ipomoea</i> spp.	4*	6*
Mustard	<i>Brassica</i> spp.	4	6
Nightshade, black	<i>Solanum nigrum</i>	4	6
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	4	6
Nightshade, hairy	<i>Solanum sarrachoides</i>	4	6
Pigweed, prostrate	<i>Amaranthus blitoides</i>	4	6
Pigweed, redroot	<i>Amaranthus retroflexus</i>	4	6
Pigweed, smooth	<i>Amaranthus hybridus</i>	4	6
Pigweed, tumble	<i>Amaranthus album</i>	2	4
Pusley, Florida	<i>Richardia scabra</i>	2	3
Ragweed, common	<i>Ambrosia artemisiifolia</i>	4	6
Ragweed, giant	<i>Ambrosia trifida</i>	5	8
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	2	4
Sida, prickly	<i>Sida spinosa</i>	2	3
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	2	3
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	2	3
Sunflower, volunteer	<i>Helianthus</i> spp.	5	8
Sunflower, wild (common)	<i>Helianthus annuus</i>	5	8
Thistle, Canada	<i>Cirsium arvense</i>	4*	6*
Thistle, Russian	<i>Salsola iberica</i>	2	4
Velvetleaf	<i>Abutilon theophrasti</i>	4	8
Waterhemp, common	<i>Amaranthus rudis</i>	4	6
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	4	6

¹ ALS (acetolactate synthase)-resistant weeds include those weeds resistant to imidazolinone, sulfonamide, and/or sulfonylurea herbicides.² For best performance, spray before weeds exceed the maximum stem height or vine length listed in this table.

* Partial control or suppression

Table 2. Grass Weeds Controlled or Suppressed² Postemergence Broadcast
(including ALS-resistant¹, glyphosate-resistant, ACCase-resistant, and triazine-resistant biotypes)

Common Name	Scientific Name	Maximum Weed Leaf Stage ³	Maximum Weed Size ³ (inches)
Barnyardgrass	<i>Echinochloa crus-galli</i>	4	4
Crabgrass, large	<i>Digitaria sanguinalis</i>	4	3
Crabgrass, smooth	<i>Digitaria ischaemum</i>	4	3
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	4	3
Cupgrass, woolly	<i>Eriochloa villosa</i>	3*	3*
Foxtail, giant	<i>Setaria faberi</i>	4	4
Foxtail, green	<i>Setaria viridis</i>	3*	3*
Foxtail, yellow	<i>Setaria lutescens</i>	3*	3*
Goosegrass	<i>Eleusine indica</i>	4	3
Johnsongrass, seedling	<i>Sorghum halepense</i>	3*	4*
Millet, wild proso	<i>Panicum miliaceum</i>	3	3
Panicum, fall	<i>Panicum dichotomiflorum</i>	3*	3*
Panicum, Texas	<i>Urochloa texana</i>	3*	3*
Sandbur, field	<i>Cenchrus</i> spp.	3*	3*
Shattercane	<i>Sorghum bicolor</i>	3*	4*
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	3*	3*

¹ ALS-resistant weeds include those weeds resistant to imidazolinone and/or sulfonylurea herbicides.

² Growth suppression at 0.5 fl oz/A

³ For best performance, use a rate of 2.0 fl ozs/A and spray before grass exceeds the maximum leaf stage and/or height listed in this table.

* Growth suppression at 0.75 fl oz/A; control at 1.0 fl oz/A

Mode of Action

Armezon® herbicide is absorbed by leaves, roots, and shoots and translocated to the growing points of sensitive weeds to control emerged weeds. **Armezon** controls weeds by inhibiting carotenoid biosynthesis (HPPD-inhibitor **Group 27**). Temperatures and moisture conditions for active plant growth are important for optimum **Armezon** activity. **Armezon** application to weeds during periods of stress conditions, such as cold temperatures and/or drought, may result in reduced performance.

Herbicide Resistance Management

For resistance management, **Armezon** contains a **Group 27** herbicide. Any weed population may contain plants naturally resistant to **Group 27** herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistant-management strategies should be followed.

To delay herbicide resistance consider:

- Avoiding the consecutive use of herbicides that have a similar target-site-of-action on the same weed species.
- Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM (Integrated Pest Management) program including cultural and mechanical methods.

- Monitoring treated weed populations for loss of field efficacy, and control of escapes with effective alternative herbicides or mechanical methods.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program needs to consider all of the weeds present.
- Scout fields prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout fields after application to verify the treatment was effective.
- Suspected herbicide-resistance weeds may be identified by these indicators:
 1. Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 2. A spreading patch of non-controlled plants of a particular weed species; and
 3. Surviving plants mixed with controlled individuals of the same species.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Report any incidence of non-performance of this product against a particular weed species to your BASF representative.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management directions for specific crops and resistant weed biotypes.

Crop Tolerance

Apply **Armezon® herbicide** during favorable growing conditions for optimum crop tolerance and weed control. Crops under environmental stress are more likely to show injury from any herbicide application. Rarely, plants under these conditions treated with **Armezon** may show transient bleaching of the portion of the leaves intercepting the spray application. These symptoms are temporary and occur infrequently; crop growth is not affected.

Cultivation

Avoid disturbing (e.g. cultivation) treated areas for at least 7 days following an application of **Armezon** to allow best herbicide uptake, translocation, and weed control.

Insecticide Information

Armezon may be used sequentially or in combination with soil or foliar applied insecticides registered for use in corn.

Application Instructions

Armezon is effective for post emergence control of annual weeds in conservation or conventional tillage production systems.

DO NOT apply **Armezon** within 30 feet of the downwind edge of native plant communities.

The applicator is responsible for any loss or damage that results from spraying **Armezon** in a manner other than directed in this label. In addition, applicator must follow all applicable state and local regulations and ordinances for spraying.

Application Timing

- Apply **Armezon** as a postemergence treatment when weeds are actively growing.
- For optimal weed control, apply **Armezon** before weeds exceed labeled height.
- Apply **Armezon** a minimum of one hour before rainfall or overhead irrigation.

Ground Application Methods and Equipment

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre. Use higher water volumes treating larger weeds and/or high-density weed infestation. Weeds must be thoroughly covered with spray. Dense leaf canopies shelter small weeds and can prevent adequate spray coverage. **Armezon** applications should be made with drop nozzles if the crop canopy prevents adequate weed coverage.

Mandatory Spray Drift Management

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select a nozzle and pressure that deliver a medium or coarser droplet size (ASABE S641).
- If the wind speed is 10 mph or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the wind speed is between 11 to 15 mph, applicators must use 3/4 swath displacement.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed-wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 3 ft above the ground or crop canopy.
- Applicators are required to select a nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

Spray Drift Advisories

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boom Height - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

Release Height - Aircraft

Higher release heights increase the potential for spray drift.

Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversion

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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.

Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Additives

Postemergence applications of **Armezon® herbicide** require the addition of an adjuvant and nitrogen fertilizer for optimum weed control.

Agriculturally approved drift-reducing additives may be used in applications with **Armezon**.

When an adjuvant is to be used with this product, BASF recommends the use of Chemical Producers and Distributors Association certified adjuvant.

Adjuvants

Unless specific tank mix directions are given in **Crop-specific Information**, always use a methylated seed oil (MSO) or a petroleum-based or vegetable seed-based oil concentrate (COC) with **Armezon**. For best performance across a wide range of environmental conditions, including when weeds are under moisture and/or temperature stress, use an MSO adjuvant. Apply these oilbased adjuvant concentrates at 1.0 to 1.5 gallons per 100 gallons of

water (1.0% to 1.5% volume/volume [v/v]). Use the higher rate when applying during periods of hot, dry weather.

AND

Nitrogen Fertilizer

Recommended nitrogen-based fertilizers include urea ammonium nitrate (UAN; 28% to 34%) or ammonium phosphate (10-34-0) at 1.25 to 2.5 gallons per 100 gallons of water (1.25% to 2.5% v/v). Instead of a liquid fertilizer, spray grade ammonium sulfate (AMS) at a minimum rate of 8.5 to 17 pounds per 100 gallons of water may be used. Use the higher rate when applying during periods of hot, dry weather.

Mixing Instructions

For product containers 5 gallons or less, shake well before use. For product containers more than 5 gallons, recirculate before use.

DO NOT use liquid fertilizer as a carrier for postemergence applications. Use only water as a carrier.

1. **Water** - Fill the spray tank 1/2 to 3/4 full with clean water and start agitation.
2. **Armezon** - Add required amount to spray tank while agitating.
3. After the **Armezon** has visibly dispersed, add spray additives and fill the remainder of the tank with water.

Maintain agitation throughout mixing and application until spraying is completed. Limit the amount of spray mixture prepared to that needed for immediate use.

Tank Mixing Order

When tank mixing **Armezon** with recommended herbicides, add the other herbicides and other components in the following order. Maintain agitation throughout mixing and application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

1. **Water** - Fill tank 1/2 to 3/4 full with clean water and start agitation.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
4. **Water-soluble additives** (including dry and liquid fertilizers such as AMS or UAN)
5. **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
6. **Water-soluble products**
7. **Emulsifiable concentrates** (including MSO adjuvants)
8. **Remaining quantity of water**

Cleaning Spray Equipment

To avoid injury to sensitive crops, drain and clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions. Triple rinse equipment before and after applying this product.

Tank Mixing Information

Armezon® herbicide may be applied sequentially or tank mixed with other herbicides as part of a complete weed control program. Tank mix recommendations are for use only in states where the sequential or tank mix product and application site are registered. Refer to **Crop-specific Information** for more details and for specific tank mix restrictions. Read and follow the applicable restrictions and precautions and **Directions For Use** on all products included in any tank mix. **The most restrictive labeling applies to tank mixes.**

Rotational Crop Restrictions

The following rotational crops may be planted after applying **Armezon** at the specified rate. Planting earlier than the specified interval may result in crop injury. Avoid overapplication by minimizing overlap of spray swaths and by switching off spray boom when turning (end rows).

For rotational crops following the use of sequential applications of **Armezon**, the rotational interval begins after the last **Armezon** application.

Rotational Crop	Rotational Interval (months)		
	Armezon Application Rate (fl oz/A)		
	0.5	0.75	1.0 to 2.0***
Corn (all)	0	0	0
Sugarcane	0	0	0
Axant™ Flex [cotton]	0	0	0
Cereal grains	3	3	3
Grass grown for seed	3	3	3
Rice	3	3	3
Alfalfa	9	9	9
Cotton (non Axant Flex)	[9] [12****]	[9] [12****]	[9] [12****]
Grain sorghum	[9] [12****]	[9] [12****]	[9] [12****]
Peanut	[9] [12****]	[9] [12****]	[9] [12****]
Potato	9	9	9
Soybean	[9] [12****]	[9] [12****]	[9] [12****]
Sunflower	[9] [12****]	[9] [12****]	[9] [12****]

(continued)

Rotational Crop (continued)	Rotational Interval (months)		
	Armezon Application Rate (fl oz/A)		
	0.5	0.75	1.0 to 2.0***
Canola	9	9	18
Lima bean, succulent	9	9	18
Dry beans ¹	9	9*	18**
Pea	9	9	18**
Snap/Garden bean	9	9*, †	18
Sugar beet	9*	9*	18**
All Other Crops	18	18	18

¹ For cranberry beans in Idaho, Utah, and the area east of the Cascade Mountains in Oregon and Washington, follow the guidelines for snap/ garden bean.

* 18 months for the following states: Colorado, Michigan, Minnesota, Montana, Nebraska (west of Highway 83), North Dakota, South Dakota, Wisconsin, and Wyoming

** 9 months for Idaho, Oregon, and Washington

† 18 months for Idaho, Utah, and the area east of the Cascade Mountains in Oregon and Washington.

*** Rotational crop injury may occur (other than for corn, sugarcane, or **Axant Flex** [cotton]) when more than 1.0 fl oz/A **Armezon** (0.022 lb topramezone per acre) per year is applied to soils with pH greater than 7 and/or under conditions with below normal seasonal precipitation.

[**** 12 months for areas with cumulative rainfall <25 inches]

Crop-specific Information

Corn (field corn, popcorn, seed corn, sweet corn)

Apply **Armezon** postemergence on all corn types including conventional, **Roundup Ready®**, and **LibertyLink®** hybrids. In addition, **Armezon** may be applied on inbred lines used in field corn, popcorn and sweet corn seed production. Refer to seed company instructions before use on inbred lines.

Armezon may be used in tank mixes or sequential applications with other herbicides registered for use in corn. If **Armezon** is tank mixed with other herbicides, follow label restrictions for the most restrictive tank mix products. 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.

Corn Restrictions

- **DO NOT** apply more than 2.0 fl ozs/A **Armezon**[®] herbicide (0.0438 lb topramezone per acre) per year in corn.
- In the event of a crop loss because of weather, any corn type can be replanted following an application of **Armezon**. If **Armezon** was tank mixed with other herbicides, the label restrictions for these herbicides must also be followed.
- **DO NOT** apply **Armezon** within 45 days of corn harvest (fresh market sweet corn, silage, fodder, or grain) or after the V8 stage of corn growth, whichever comes first.
- **DO NOT** graze or feed treated corn forage, silage, fodder, or grain for at least 45 days after an application of **Armezon**.

Tank Mixes

Armezon may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Outlook**[®] herbicide [EPA Reg. No. 7969-156; Dimethenamid-P]
- **Prowl**[®] H2O herbicide [EPA Reg. No. 241-418; Pendimethalin]
- **Status**[®] herbicide [EPA Reg. No. 7969-242; Diflufenzopyr-sodium and Dicamba, sodium salt]
- **Surtain**[™] herbicide [EPA Reg. No. 7969-501; Pyroxasulfone and Saflufenacil]
- **Zidua**[®] SC herbicide [EPA Reg. No. 7969-374; Pyroxasulfone]
- atrazine
- glyphosate (e.g. **Roundup**[®] herbicide)

Armezon tank mixes or sequential applications with products containing mesotrione are not recommended.

Sequential Herbicide Combinations and Uses

In addition to control of many emerged broadleaf weeds, **Armezon** controls or suppresses growth of several emerged grass weed species. To target a broader spectrum of grasses, use **Armezon** as a sequential postemergence treatment following a preemergence grass herbicide such as **Outlook**, **Prowl H2O**, **Surtain**, or **Zidua SC**. **Armezon** may also be used in sequential programs with registered burndown herbicides.

Armezon may be applied in sequence with products containing isoxaflutole (e.g. **Corvus**[®] herbicide) if the isoxaflutole rate used is less than or equal to 0.0625 lb active ingredient per acre (equal to 4 fl ozs/A of **Corvus**).

Between Crop Application (Fallow)

Armezon may be used as a foliar application to control emerged broadleaf and grass weeds at any time of the year during the fallow period after crop harvest and before the following crop is planted. For rotational crops following the use of a between crop application of **Armezon**, the

rotational interval begins after the last **Armezon** application; see **Rotational Crop Restrictions** section for intervals.

Application Rate and Timing

Apply **Armezon** as a broadcast spray at 0.5 fl oz/A to 2.0 fl ozs/A. Best product performance is obtained when weeds are small and actively growing. Thorough coverage of existing weeds is essential, and higher spray volume may be needed for best performance. Sequential applications may be made with a minimum of 14 days between applications. **DO NOT** apply more than the maximum cumulative amount of 2.0 fl ozs/A (0.0438 lb topramezone per acre) of **Armezon** per year.

Sugarcane

Armezon can be applied to plant cane or sugarcane grown from stubble (ratoon). **Armezon** may be used in tank mixes or sequential applications with other herbicides registered for use in sugarcane such as atrazine, metribuzin, or **Prowl H2O**. If **Armezon** is tank mixed with other herbicides, follow label restrictions for the most restrictive tank mix product. Application of **Armezon** may cause transient discoloration, chlorosis, or yellowing of sugarcane.

Armezon may be applied between growing seasons as either an early preplant in plant cane or post harvest in ratoon cane prior to cane initiating regrowth. Apply 0.5 to 2.0 fl ozs/A of **Armezon** with a minimum of 14 days between sequential applications. **DO NOT** apply more than 4.0 fl ozs/A (0.0875 lb topramezone per acre) of **Armezon** per year.

Special Weeds Controlled/Suppressed

In addition to the weeds controlled early postemergence as described in **Table 1** and **Table 2**, **Armezon** controls or suppresses the following weeds.

- **Common Bermudagrass** (*Cynodon dactylon*) - Apply early in the season at onset of Bermudagrass greenup or emergence of new leaves. Apply 1.0 to 2.0 fl ozs/A of **Armezon** per application. Up to four sequential applications at 2 to 3 week intervals may be necessary for best control. **DO NOT** apply more than 4.0 fl ozs/A of **Armezon** (0.0875 lb topramezone per acre) per year. Apply using MSO or COC spray adjuvant plus nitrogen fertilizer such as AMS or UAN. See **Adjuvants** and **Nitrogen Fertilizer** sections for details.
- **Fall panicum** (*Panicum dichotomiflorum*) - For rescue suppression of large fall panicum more than 12-inches tall or other annual grasses listed in **Table 1** and **Table 2**, apply 2.0 fl ozs/A **Armezon** and use a minimum of 20 gallons per acre spray volume for proper spray coverage. Apply using MSO or COC spray adjuvant plus nitrogen fertilizer such as AMS or UAN. See **Adjuvants** and **Nitrogen Fertilizer** sections for details.

Sugarcane Restrictions

- **DO NOT** apply more than 2.0 fl ozs/A of **Armezon® herbicide** (0.0438 lb topramezone/A) per application in sugarcane.
- **DO NOT** apply more than 4.0 fl ozs/A of **Armezon** (0.0875 lb topramezone/A) per year in sugarcane.
- **DO NOT** exceed a seasonal total of 2.0 fl ozs/A (0.0438 lb topramezone/acre) of **Armezon** during the final year of sugarcane production, prior to rotation to another crop.
- **DO NOT** apply **Armezon** within 100 days of sugarcane harvest.
- **DO NOT** graze or feed treated sugarcane for at least 100 days following an application of **Armezon**.

African Marigold Restrictions

- **DO NOT** apply more than 1.0 fl oz/A of **Armezon** (0.022 lb topramezone/A) per application in African marigold.
- **DO NOT** apply more than 2.0 fl ozs/A **Armezon** (0.0438 lb topramezone per acre) per year in African marigold.
- **DO NOT** graze livestock in treated fields or feed treated plant materials to animals.
- **DO NOT** apply by air.
- Avoid overlapping spray patterns because crop injury can occur.

African Marigold

Armezon is only registered for use in African marigold grown for the purpose of lutein and zeaxanthin extraction.

Use Method, Rate, and Timing

Apply **Armezon** in a single application or sequential applications after complete crop recovery with an interval of 14 days or more.

Apply 0.5 to 1.0 fluid ounce of **Armezon** per acre as a ground broadcast spray. Best product performance is obtained when weeds are small and actively growing. Thorough coverage of existing weeds is essential, and higher spray volume may be needed for best performance.

Armezon applications must include spray additives. The specific additive (**adjuvant plus nitrogen fertilizer**) requirements for **application in African marigold are as follows:**

- Crop oil concentrate (COC) at 1.5 gallons per 100 gallons of water (1.5% volume/volume), plus
- Spray grade ammonium sulfate (AMS) at 8.5 pounds per 100 gallons of water or a liquid nitrogen fertilizer such as urea ammonium nitrate (UAN, 28% to 34%) or ammonium phosphate (10-34-0) at 1.25 to 2.5 gallons per 100 gallons of water (1.25% to 2.5% v/v).
- **DO NOT** use methylated seed oil (MSO) as a substitute for COC or severe crop injury may occur.

Postemergence. Apply **Armezon** over-the-top of African marigold when target weeds are actively growing. African marigold plants must have at least 2 to 4 full leaves with a minimum height of 3 to 5 inches, before an **Armezon** application can be made.

Postemergence-directed. Apply **Armezon** as a postemergence-directed spray beneath the canopy of established plants and between rows for postemergence weed control.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

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