OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

October 31, 2024

Dennese Grimm
Registration Specialist
Gowan Company, LLC
P.O. Box 5569
Yuma, AZ 85366

Subject: Label Amendment - Registration Review Mitigation for Primisulfuron-methyl and Update to Warranty Section
Product Name: NorthStar Herbicide
EPA Registration Number: 10163-378
Application Date: December 07, 2017 & November 17, 2023
Decision Number: 594668

Dear Dennese Grimm:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Primisulfuron-methyl Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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 the Federal Insecticide, Fungicide, and Rodenticide Act 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) list 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 Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. 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.

If you have any questions about this letter, please contact Caleb Carr by phone at (202) 566-0636, or via email at carr.caleb@epa.gov.

Sincerely,

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

PRIMISULFURON-METHYL	GROUP	2	HERBICIDE
DICAMBA	GROUP	4	HERBICIDE

[Booklet Label]

NorthStar® Herbicide

For postemergence weed control in field corn (grown for grain, silage, or seed) and popcorn

ACTIVE INGREDIENTS:	**% BY WT**
Primisulfuron-methyl: 3-[4,6-Bis(difluoromethoxy)-pyrimidin-2-yl]-1-(2-methoxycarbonyl-phenylsulfonyl) urea	7.5%
Sodium salt of dicamba (3,6-dichloro-*o*-anisic acid*)	43.9%
Other Ingredients:	48.6%
TOTAL:	100.0%

*This product contains 39.9% as acid equivalent of 3,6-dichloro-o-anisic acid (dicamba).

NorthStar® Herbicide is formulated as a water-dispersible granule (WDG) and contains 0.075 lb primisulfuron-methyl per lb of product and 0.339 lb dicamba acid per lb of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

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 additional precautionary statements and directions for use inside booklet.]

FIRST AID	
IF IN EYES	• 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 eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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 do so by a poison control center or doctor. • Do not give anything to an unconscious person.
IF INHALED	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center, doctor, or going for treatment. **FOR EMERGENCY INFORMATION CONCERNING THIS PRODUCT, CALL TOLL FREE 1-888-478-0798**	

NET CONTENTS: _____

EPA Reg. No. 10163-378
EPA Est. No.

ACCEPTED
Oct 31, 2024
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10163-378

Produced For:
Gowan Company, LLC
P.O. Box 5569
Yuma, AZ 85366-5569

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION/PRECAUCIÓN

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin, 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. Harmful if inhaled. Avoid breathing spray mist.

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

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves

Follow 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.

ENGINEERING CONTROL STATEMENTS

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. Pilots must use enclosed cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)].

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 clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, 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.

GROUNDWATER ADVISORY

Dicamba has been identified in groundwater sampling under vulnerable conditions. Primisulfuron-methyl has properties and characteristics associated with chemicals detected in groundwater. There is the possibility that Dicamba and Primisulfuron-methyl in NorthStar may leach through soil to groundwater, especially where soils are permeable and the water table is shallow. Consult with the pesticide state lead agency or local agricultural agencies for information regarding soil permeability and aquifer vulnerability in your area.

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 ground water. This product is classified as having high potential for reaching surface water 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 primisulfuron-methyl and dicamba 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.

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. It is critical to avoid contaminating the forage sources and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the **Spray Drift Management** section of this label.

DIRECTIONS FOR USE

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

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 **24 hours**. Exception: If the product is soil-injected or soil- incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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-sleeve shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overheard exposure
- Protective eyewear

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

Observe all precautions and limitations on this label and on the labels of each product used in tank mixtures with this product.

PRODUCT INFORMATION

NorthStar is a herbicide applied after emergence of both crop and weeds for the control of many broadleaf weeds, shattercane, sorghum-almum, johnsongrass, and quackgrass in field corn (grown for grain, silage, or seed) and popcorn. Application may be made by ground equipment to young, actively growing weeds. Refer to Tables 1-6 for lists of weeds controlled by NorthStar alone and in tank mix combinations.

The level of weed control following a NorthStar application is dependent upon weed species, weed size at time of application, and growing conditions. Weed control is better when ample soil moisture exists before and after NorthStar application, than when the soil is dry and weeds are under stress from lack of moisture.

Where reference is made to weeds partially controlled, partial control means significant activity, but not always at a level generally considered acceptable for commercial weed control.

Growth of susceptible weeds is inhibited following an application of NorthStar. The leaves turn yellow and/or red after several days followed by death of the growing point. In addition, broadleaf weeds exhibit stem and leaf twisting and bending. Complete plant death occurs 7-30 days after a NorthStar application, depending upon weed species and environmental conditions. Weeds not completely killed by NorthStar are often stunted and are less competitive to corn. NorthStar reaching the soil during a postemergence application provides preemergence control of certain weed species.

NorthStar, applied at labeled rates, rarely causes corn injury. When a crop response occurs, it is generally of short duration and yields are not affected.

Cold weather stress (prolonged cold temperatures at time of or shortly after application) may contribute to corn injury.

USE PRECAUTIONS

Follow the precautions listed below to reduce chances for crop injury and/or to avoid reduced weed control:

1. **Field Corn:** Apply a single postemergence NorthStar application at the standard use rate (5 oz/A) broadcast over-the-top, directed, or semi-directed when field corn height is between 4 and 20 inches tall (V2-V6). Only directed or semi- directed applications should be made when corn is between 20 and 36 inches tall. Do not apply to corn plants less than 4 inches tall or injury may occur.

2. NorthStar should not be applied if corn shows severe stress or injury due to drought, cold weather, hail, flooding, compacted soil, saturated soil conditions, disease, insect damage, nutrient deficiency, previously applied herbicides, or other causes.

3. If irrigation is necessary following application, delay for 24 hours to minimize injury potential, particularly on coarse-textured soils, and to maximize weed control. Rainfall occurring within 4 hours after a NorthStar application may reduce weed control.

If a “normal” or IT[1] corn hybrid (not an IR or IMR[2] hybrid) is planted and an organophosphate insecticide is applied at planting or before applying NorthStar, temporary injury may occur following the NorthStar application. Do not apply NorthStar if this corn crop

was previously treated with Counter® 15G (any application method) or Counter CR® applied in- furrow at planting or over the row at cultivation, as severe crop injury may occur. Application of NorthStar to corn previously treated with labeled rates of Counter CR applied in a surface band or T-band (in front of press wheel) at planting time, may result in crop injury. Gowan Company, LLC will not be held responsible for losses or damage resulting from such use. If an IR or IMR corn hybrid is planted, organophosphate insecticides, including terbufos (Counter), can be applied at any time according to label directions without increasing the likelihood of injury to those hybrids.

[1]IT – Corn with enhanced imidazolinone herbicide tolerance.

[2]IR/IMR – Corn with enhanced imidazolinone herbicide resistance.

1. Do not make a foliar postemergence or soil application of any organophosphate insecticide within 10 days before or 7 days after a NorthStar application or severe crop injury may occur.

2. NorthStar may be applied to all field corn hybrids except the few that are classified by Gowan Company, LLC as not tolerant. Consult your chemical dealer, seed supplier, or Gowan Company, LLC representative for a current listing of field corn hybrids classified as not tolerant to NorthStar.

3. **Field Corn Grown for Seed and Popcorn:** NorthStar can only be applied directed or semi-directed to inbred lines of field corn and popcorn; however, all inbred lines and all popcorn hybrids have not been tested for tolerance to NorthStar, nor does Gowan Company, LLC have access to all seed company data. Therefore, inbred lines of field corn and popcorn hybrids must be thoroughly tested for tolerance to NorthStar in small areas before treating large acreages. To avoid crop injury, popcorn and inbred lines should not be sprayed with over-the-top applications of NorthStar. Use only semi-directed or directed applications with drop nozzles when the popcorn or inbred lines are between 10 and 36 inches tall, or 15 days before tassel emergence, whichever comes first.

4. Do not use NorthStar on sweet corn or ornamental (Indian) corn.

5. Aphids or other insects infesting johnsongrass may move to the corn following NorthStar applications for johnsongrass control. The insects may transmit viral diseases to the corn resulting in corn stunting, leaf discoloration, and yield loss. To reduce the likelihood of disease development, plant virus-resistant corn hybrids and/or control the insects.

6. Best weed control results will be achieved by spraying NorthStar to weeds within the height ranges listed in Tables 1-6 and by following application directions.ro

7. The potential for corn stunting from decaying johnsongrass rhizomes may be reduced through tillage prior to planting corn.

8. Do not apply NorthStar in tank mixtures with Poast® or Poast Plus® herbicides, as grass control is often reduced significantly and/or crop injury may occur.

9. Observe all precautions and limitations on the label of each tank mix partner used with NorthStar that is named on this label.

WEED RESISTANT MANAGEMENT

To reduce the potential for herbicide resistance issues, the end use product, NorthStar, label contains the following label language that provides the user with information on resistant weed management.
NorthStar Herbicide contains the active ingredients primisulfuron-methyl which inhibits the acetolactate synthase (ALS) enzyme (Site of Action Group 2) and dicamba which interferes with the plant's growth hormones (auxins) (Site of Action Group 4). Some naturally occurring weed populations have been identified as resistant to Group 2 and 4 herbicides. Selection of resistant biotypes, through repeated use of these herbicides or lower than specified use rates in the same field, may result in weed control failures. A resistant biotype may be present if poor performance cannot be attributed to adverse environmental conditions or improper application methods. For further information or to report suspected resistance, you may contact Gowan Company, LLC at 1-800-883-1844.

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 Gowan Company, LLC representative, or call 1-800-883-1844. 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.

Resistant weeds

- Contact your local Gowan Company, LLC 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.

CROP FAILURE

If corn treated with NorthStar is lost due to a catastrophe (for example, hailstorm), corn hybrids with tolerance to NorthStar may be replanted 14 days or more after application, unless dry weather has persisted. An IR or IMR corn hybrid may be replanted immediately. DO NOT make a second application of NorthStar. If any other products were applied prior to or after NorthStar, read product labels and follow the most restrictive recrop limitations.

ROTATIONAL CROPS

The following crops may be rotated at the intervals indicated following an application of NorthStar to corn.

ROTATIONAL CROP	INTERVAL	NOTES
IR or IMR Field corn hybrids	None	Refer to **Crop Failure** section.
Field corn	14 days	Refer to **Crop Failure** section.
Winter wheat, winter barley, rye	3 months	Injury may occur if dry weather prevails during much of the time between NorthStar application and seeding of winter cereals.
Alfalfa, sweet corn, popcorn, cotton, dry beans, green beans, peanuts, peas, potatoes, sorghum, soybeans, sunflowers, spring-seeded small grains, tobacco	8 months	Injury may occur to sorghum, alfalfa, or sunflowers if dry weather prevails during much of the time between NorthStar application and seeding of these crops.
All other crops	18 months	–

Notes: (1) For rotational crop restrictions when NorthStar is used in tank mixtures, refer to the rotations above for NorthStar and to the respective product labels of any mixing partner for additional restrictions. **(2) Do not use in the Red River Valley areas of Minnesota or North Dakota or in areas with similar soils, unless corn will be the only crop grown in the following two seasons.**

APPLICATION PROCEDURES

Ground Spray Equipment: Use stainless steel, aluminum, fiberglass, or polyethylene spray tanks. Spray nozzles should be uniformly spaced and of the same size, and should provide accurate and uniform application. Use spray nozzles that provide medium-coarse droplets to provide good coverage and to minimize drift. Refer to **SPRAY DRIFT Ground Boom Applications** section of this label for spray droplet size requirement.

To help assure accuracy, calibrate sprayer at the beginning of the season before use and recalibrate frequently. Also recalibrate any time carriers are changed. For ground application, use a minimum of 10 gal of water per acre. Higher volumes (e.g., 20 gal/A) should be used under severe weed infestations to ensure adequate spray coverage.
Always include crop oil concentrate or nonionic surfactant in the spray mixture (see **Mixing Procedures** section which follows).

Use a pump with capacity to: (1) maintain 35-40 psi pressure at nozzles, and (2) provide sufficient agitation within the tank to keep product in suspension. Lower pressures may be used with extended range or low pressure nozzles. A centrifugal pump which provides propeller shear action for dispersing and mixing the product is recommended. The pump should provide a minimum of 20 gal/minute/100 gal tank size circulated through correctly positioned sparger tubes or jets. Agitation during both mixing and application is essential. Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and when required, at the nozzles. Check nozzle manufacturer's directions.

Good coverage of weeds with the spray mixture is essential for maximum weed control results. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid any spray application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. To reduce spray drift, do not apply when winds are in excess of 10 mph. Allow adequate distance between target area and desirable, nontarget vegetation. Avoid spray overlap, because crop injury may result. **Use a nozzle spacing and boom height arrangement that avoids applying an excessive rate of NorthStar directly over the corn rows.** Boom height for broadcast over-the-top application should be based upon the height of the corn, and should be in accordance with the nozzle manufacturer's directions for height above the target area.

DO NOT apply NorthStar as a band application directly over the corn rows. NorthStar may be applied postemergence over-the-top, directed, or semi-directed when field corn height is between 4 and 20 inches tall (V2-V6). If the corn canopy would prevent adequate coverage of weeds, apply NorthStar directed or semi-directed with drop nozzles even if the corn height is less than 20 inches. NorthStar may only be applied directed or semi-directed when field corn is between 20 and 36 inches tall (10 and 36 inches tall for inbred lines of field corn and popcorn) or 15 days before tassel emergence, whichever comes first. **Avoid all direct or indirect contact (such as spray drift) of NorthStar with crops other than those recommended for treatment on this label, since injury may occur.**

Sensitive Crop Precautions

NorthStar herbicide may cause injury to desirable trees and plants, particularly beans, cotton, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco, tomatoes, and other broadleaf plants when contacting their roots, stems, or foliage. These plants are most sensitive to NorthStar herbicide during their development or vegetative growing stage. FOLLOW THE PRECAUTIONS LISTED BELOW WHEN USING NORTHSTAR HERBICIDE.

- Do not apply NorthStar when soybeans are growing nearby if any of these conditions exist: (1) corn is more than 24 inches tall, (2) soybeans are more than 10 inches tall, and (3) soybeans have begun to bloom.

- Do not treat areas where possible downward movement into the soil or surface washing may cause contact of NorthStar herbicide with the roots of desirable plants such as trees and shrubs.

- Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing, or when temperature inversions exist. Do not spray near sensitive plants if wind is gusty or in excess of 5 mph and moving in the direction of adjacent sensitive crops. Coarse sprays are less likely to drift out of the target area than fine sprays.

- Also refer to the following sections of the label: **Directions to Avoid Spray Drift and Cleaning Equipment after NorthStar Application**.

Chemigation: Do not apply this product through any type of irrigation system.

Aerial Application: Apply NorthStar in a minimum spray volume of 5 gal/A. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Refer to the **SPRAY DRIFT Aerial Applications** and **SPRAY DRIFT ADVISORIES** sections of this label for spray drift management.

Select nozzles and boom configurations that produce medium-coarse droplets (250-400 microns VMD). Make applications at a maximum spray height of 10 ft above the crop with low-drift nozzles at a maximum pressure of 40 psi. Boom length should be a maximum of 70% of the wingspan of the aircraft when fixed-wing aircraft are used.
Orient nozzles down and slightly backward. Use swath adjustment to manage wind displacement of the spray. Avoid spraying when wind speed exceeds 10 mph to help assure accurate application within the target area.

Avoid application to humans or animals. Loaders should avoid inhalation of spray mist and prolonged contact with skin.

Avoid all direct or indirect contact (such as spray drift) of NorthStar Herbicide with crops other than those recommended for treatment on this label, since injury may occur.

RESTRICTIONS

1. **DO NOT** make more than 1 application per year.
2. **DO NOT** use crop oil concentrate (COC) when making aerial applications of NorthStar.
3. **DO NOT** make NorthStar applications before corn is at least 4 inches tall.

4. **DO NOT** make aerial applications of NorthStar to field corn grown for seed or popcorn.
5. **DO NOT** apply NorthStar by aerial application in New York State.

SPRAY DRIFT MANAGEMENT

As with all crop protection products, it is important to avoid off-target movement onto adjacent land or crops, as even small amounts may injure sensitive plants. To reduce spray drift, the following spray drift management requirements must be followed.

MANDATORY SPRAY DRIFT MANAGEMENT

GROUND BOOM APPLICATIONS

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- Applicators are required to use a Medium or coarser droplet size (ASAE S572.3).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

AERIAL APPLICATIONS

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to use a Medium or coarser droplet size (ASABE S641).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour 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 NON-TARGET 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 manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. 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. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy unless a greater application height is necessary for pilot safety.

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 INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with ltitude 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. Avoid applications during temperature inversions.

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.

WINDBLOWN SOIL PARTICLES ADVISORY

NorthStar Herbicide has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying NorthStar Herbicide if prevailing local conditions may be expected to result in off-site movement.

MIXING PROCEDURES

IMPORTANT: Follow the correct mixing order on the label or the material may not mix properly. Poor mixing may result in crop injury or poor product performance.

1. Make sure the spray tank is clean before mixing. If it is contaminated with other materials, mixing problems and/or clogging may occur, or injury to the crop may result.

2. Fill the spray tank ¼ – ½ full with clean water and begin agitation.

3. Make certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. Maintain agitation throughout the mixing and spraying process.

4. Add any products packaged in water-soluble film to the tank first. Allow the packets to completely dissolve and the contents of the packets to fully disperse into the mix water. Important: Water-soluble packets must always be the first material put into the spray tank after water. For products packaged in water- soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been thoroughly cleaned. (See Cleaning Equipment After NorthStar Application.)

5. Pour the required amount of NorthStar into the spray tank while continuing agitation and allowing time to fully disperse.

6. While maintaining agitation, continue filling the spray tank. When the tank is ¾ full, add any tank mix partners. Add any water-dispersible granule or other dry formulations first, and allow material to disperse. Then add any emulsifiable liquid formulation.

7. Follow by adding either (a) a nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant (e.g., X-77®), at the rate of 1 qt/100 gal of spray volume (0.25% volume/volume) or (b) a petroleum- or vegetable-based crop oil concentrate containing not less than 12% emulsifier at 1-4 pt/A as specified on the crop oil concentrate label. **Crop oil concentrate should not be used if corn is greater than 12 inches tall. Use only nonionic surfactant with or without liquid nitrogen fertilizer or ammonium sulfate as described below.** The concentration of the crop oil concentrate should not exceed 2.5% volume/volume. In addition to crop oil concentrate or nonionic surfactant, liquid nitrogen fertilizer (28-34% nitrogen-ammonium form) may also be added at 2-4 qt/A. Instead of the liquid nitrogen fertilizer, spray grade ammonium sulfate may be used at the rate of 2-4 lb/A. Liquid nitrogen fertilizers or ammonium sulfate should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture. **Do not use liquid fertilizer as the spray carrier.**

8. When NorthStar is used alone or in tank mix combinations, either crop oil concentrate or a nonionic surfactant should be included, with or without liquid nitrogen fertilizer or ammonium sulfate, as described in item 7 above. **Do not use crop oil concentrate as the spray adjuvant when using tank mixtures with dicamba.** Use a nonionic surfactant with or without liquid nitrogen fertilizer or ammonium sulfate as the additive in tank mixtures containing those products.

9. Complete filling the tank, maintaining sufficient agitation at all times to ensure surface action until the spray tank mixture is uniform.

10. An anti-foaming agent may be added to reduce excessive foaming if needed.

11. **Do not leave spray in the spray tank without continuous agitation.** Always maintain agitation to avoid separation and buildup of undesirable residues on the walls of the spray tank.

12. Although NorthStar will remain active in the spray solution for at least 48 hours, make only sufficient mixture that will be sprayed the day in which it will be mixed.

Cleaning Equipment after NorthStar Application

Because most crops other than corn are extremely sensitive to low rates of NorthStar, special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.

2. Prepare a cleaning solution of 1 gal of household ammonia per 25 gal of water. Many commercial spray tank cleaners may be used. **Do not use chlorine-based cleaners such as Clorox®.**

3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. 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.

4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.

5. Dispose of rinsate from steps 1-3 in an appropriate manner. Spray the cleaning solution on untreated corn or return to a rinsate tank for later use as make-up for spraying corn or use other approved disposal.

6. Repeat steps 2-5.

7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.

8. Rinse the complete spraying system with clean water.

   Note: If the tank is equipped with the proper number of correctly mounted 360° tank washing nozzles which are attached to a dedicated rinsing system, less cleaning solution than a full tank may be used. Use sufficient cleaning solution to thoroughly rinse all surfaces. Start the sprayer agitation and recirculate the cleaning solution for at least 15 minutes. Flush the spray boom with the cleaning solution. Repeat the rinsing procedure 1-2 times.

CROP USE DIRECTIONS

NorthStar Applied Alone For Weed Control in Corn

Prior to all NorthStar applications, a preemergence herbicides should be applied for grass control, and will improve control of several of the weeds listed in Tables 1-6. Consult their respective labels for directions, precautions, and limitations before applying.

Weed competition with corn plants can severely effect corn yields. For best weed control and to realize the full yield potential of the corn crop, apply NorthStar at 5 oz/A plus adjuvants when corn is between 4 and 12 inches tall (V2-V4) and weeds are within the height ranges listed in Tables 1 and 2. NorthStar at 5 oz/A plus spray adjuvants may be applied postemergence over-the-top, directed, or semi-directed when weed(s) are within the height range specified for optimum control in Tables 1 and 2 and when the height of the field corn is between 4 and 20 inches (V2-V6). Good weed spray coverage is essential for optimum effectiveness of NorthStar. To ensure good spray coverage of the weeds and avoid potential crop injury, applications made after field corn is 20 inches tall (V6) up to 36 inches tall or 15 days before tassel emergence, whichever comes first, should only be directed or semi-directed with drop nozzles. Do not make over-the-top applications of NorthStar to inbred lines of field corn or popcorn. NorthStar can only be applied directed or semi-directed when inbred lines of field corn and popcorn are between 10 and 36 inches tall, or 15 days before tassel emergence, whichever comes first.

Grass and broadleaf weeds, which are controlled following postemergence application of 5 oz/A of NorthStar, are listed in Tables 1 and 2. If weeds other than those listed in Tables 1 and 2 are anticipated, make a separate application of an appropriately labeled preplant, preemergence, or postemergence herbicide or herbicide combination.

Applications of NorthStar to corn during rapid growth may result in yellowing and/or temporary leaning. Corn will usually regain color and become erect within 3-7 days. **Cultivation should be delayed until after corn is growing normally to avoid breakage.**

Field Corn Grown for Seed and Popcorn: NorthStar applications to tolerant field corn inbred lines or popcorn must be directed or semi-directed when the height of the corn is between 10 and 36 inches tall, or 15 days before tassel emergence, whichever comes first. Refer to Use Precaution 7 for additional information.

Cultivation is recommended to control reinfestation that may occur from weed regrowth or late germination of weeds and to improve weed control under dry conditions. A waiting period of 7 days after a NorthStar application is recommended before making a cultivation or weed control may be reduced. Where shattercane is the target weed species, NorthStar may be applied at cultivation, but some regrowth of shattercane may occur. Apply NorthStar ahead of cultivators.

For optimum control of johnsongrass, cultivation or a follow-up application of Beacon® at 0.25 oz/A or Accent at 0.33 oz/A is recommended to control reinfestation that may occur from regrowth. The application should be made when the weed height is within the range specified for optimum control in Table 1 and when the field corn height does not exceed 20 inches. After several years use of NorthStar or Beacon or other products for johnsongrass or shattercane control, populations of these weeds may be substantially reduced. Refer to the Beacon or Accent labels for directions for use.

Restrictions: To avoid possible illegal crop residues: (1) Do not graze or feed forage from NorthStar-treated corn to livestock within 30 days after application. (2) Do not harvest silage within 45 days after application. (3) Do not harvest grain within 60 days after application. (4) Do not make more than one NorthStar application per season at 5 oz/A. (5) All applications of NorthStar to corn should be made no later than 15 days before tassel emergence.

Table 1: Grass Weed Species Controlled or Partially Controlled with NorthStar Applied at 5 oz/A

Grass Weed Species	Weed Height Range for Optimum Control (inches)
Foxtails (*Setaria* spp.)[3,4]	1-3
Johnsongrass, Rhizome (*Sorghum halepense*)[1,3,4]	8-16
Johnsongrass, Seedling (*Sorghum halepense*)[3]	4-12
Nutsedge, Yellow (*Cyperus esculentus*)[3]	1-4
Panicum, Fall (*Panicum dichotomiflorum*)	1-3
Quackgrass (*Elytrigia repens*)[2] (formerly *Agropyron repens*)	4-8
Ryegrass, Annual (*Lolium multiflorum*)	1-4
Sandbur (*Cenchrus* spp.)[3]	1-4
Shattercane (*Sorghum bicolor*)[4]	4-12
Sorghum-almum (*Sorghum almum*)[4]	4-12
Sorghum, Volunteer (*Sorghum bicolor*)[4]	4-12

[1]Regrowth may occur. Control unacceptable regrowth with cultivation or a subsequent application of Accent or Beacon as described above.

[2]Control of quackgrass is slower compared to other grass weed species. NorthStar may only provide partial control of quackgrass under heavy infestations. Control can be improved by tank mixing NorthStar at 5 oz/A with Beacon at 0.25 oz/A.

[3]Partial control. Control is most effective under conditions favorable for weed growth (i.e., adequate moisture, optimum temperature conditions, etc.). Grass or sedge control may be improved by tank mixing NorthStar at 5 oz/A with Beacon at 0.25 oz/A. Do not use NorthStar to control these species if the weeds are subject to stress conditions (i.e., drought, cold temperatures, etc.), or are not actively growing. Some other means of control should be used if infestations are severe.

[4]Certain biotypes of this weed species are known to be resistant to this and other ALS herbicides. Where these ALS-resistant biotypes are known or suspected to exist, an appropriate registered herbicide, active against that weed and with another mode of action, should be used alone or in tank mix combination with NorthStar to control these biotypes.

Table 2: Broadleaf Weed Species Controlled or Partially Controlled with NorthStar Applied at 5 oz/A

Broadleaf Weed Species	Weed Height Range for Optimum Control (inches)
Alfalfa (*Medicago sativa*)[1]	1-6
Amaranth, Palmer (*Amaranthus palmeri*)	1-4
Amaranth, Powell (*Amaranthus powellii*)	1-4
Artichoke, Jerusalem (*Helianthus tuberosus*)	1-4
Beggarweed, Florida (*Desmodium tortuosum*)	1-4
Bindweed, Field (*Convolvulus arvensis*)	1-3
Bindweed, Hedge (*Calystegia sepium*)[1]	1-3
Blackberry, Wild (*Rubus* spp.)[1]	1-3
Buckwheat, Wild (*Polygonum convolvulus*)	1-3
Burcucumber (*Sicyos angulatus*)	1-4
Carpetweed (*Mollugo verticillata*)	1-3
Cocklebur, Common (*Xanthium strumarium*)	1-6
Dandelion (*Taraxacum officinale*)[1]	1-3
Devilsclaw (*Proboscidea louisianica*)	1-4

Dogbane, Hemp (*Apocynum cannabinum*)[1]	6-12
Eveningprimrose, Cutleaf (*Oenothera laciniata*)	1-3
Horsenettle (*Solanum carolinense*)[1]	2-6
Horseweed (Marestail, *Conyza canadensis*)[1]	6-12
Ivy, Poison (*Rhus radicans*)[1]	1-3
Jimsonweed (*Datura stramonium*)	1-6
Kochia (*Kochia scoparia*)[2]	1-4
Ladysthumb (*Polygonum persicaria*)	1-4
Lambsquarters, Common (*Chenopodium album*)[3]	1-4
Morningglory (*Ipomoea* spp.)[1]	1-3
Mustard, Wild (*Sinapsis arvensis*)	1-4
Nightshade, Black (*Solanum nigrum*)	1-6
Nightshade, Eastern Black (*Solanum ptycanthum*)	1-6
Nightshade, Hairy (*Solanum sarrachoides*)	1-4
Pigweeds (*Amaranthus* spp.)	1-5
Puncturevine (*Tribulus terrestris*)	1-4
Purslane, Common (*Portulaca aleracea*)	1-3
Pusley, Florida (*Richardia scabra*)	1-3
Radish, Wild (*Raphanus raphanistrum*)	1-4
Ragweed, Common (*Ambrosia artemisiifolia*)	2-9
Ragweed, Giant (*Ambrosia trifida*)	2-9
Sesbania (*Sesbania exaltata*)	1-4
Sicklepod (*Cassia obtusifolia*)	1-3
Sida, Prickly (*Sida spinosa*)	1-4
Smartweed, Pennsylvania (*Polygonum pensylvanicum*)	1-4
Sunflowers (*Helianthus* spp.)	2-9
Thistle, Canada (*Cirsium arvense*)	1-6
Thistle, Russian (*Salsola iberica*)[1]	1-4
Velvetleaf (*Abutilon theophrasti*)[2]	1-4
Broadleaf Weed Species	**Weed Height Range for Optimum Control (inches)**
Waterhemp, Common (*Amaranthus rudis*)	1-4
Waterhemp, Tall (*Amaranthus tuberculatus*)	1-4

[1]Partial control. Dicamba can be tank mixed with NorthStar to improve the control of weeds listed as partial control. **Use nonionic surfactant with or without nitrogen if dicamba is added. Do not use crop oil concentrate with these tank mixes.**

[2]Crop oil concentrate plus liquid nitrogen fertilizer or ammonium sulfate are recommended spray adjuvants when corn is less than 12 inches tall (refer to **Mixing Procedures**).

[3]Including triazine-resistant biotypes.

NorthStar Tank Mix Combinations for Weed Control in Corn

Prior to all NorthStar applications, a preemergence herbicides should be applied for grass control, and to improve control of several of the weeds listed in Tables 1-6.

NorthStar may be applied postemergence in tank mix combinations for improved control of various weeds. For all tank mixtures of NorthStar with other herbicides listed on this label, refer to both labels for weeds controlled and application information; and follow all restrictions and precautions on both labels.

Precautions for Tank Mix Combinations: (1) NorthStar applied alone or in tank mixtures can be applied using either a nonionic surfactant or crop oil concentrate with or without liquid nitrogen or ammonium sulfate. Refer to item 7 under **Mixing Procedures** for information on rates and timing of the various additives. (2) Do not use crop oil concentrate as the spray adjuvant when using tank mixtures with dicamba. In mixtures with those products, use only a nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant at the rate of 1 qt/100 gal of spray volume (0.25% volume/volume). (3) Do not apply NorthStar in tank mixture with cyanazine, or severe crop injury may result. (4) Gowan Company, LLC does not recommend tank mixtures of NorthStar with other agricultural products not listed on this label due to the possibility of reduced control, crop injury, or other undesirable interactions. When NorthStar is applied in tank mixtures with other products, follow the most restrictive labeling requirements.

For postemergence control of weeds actively growing in corn, NorthStar will control the weeds listed in:

- Table 3 when tank mixed with atrazine
- Table 4 when tank mixed with Accent
- Table 5 when tank mixed with Resource
- Table 6 when tank mixed with Tough

With all tank mixtures containing atrazine, application must be made before the corn exceeds 12 inches in height and the total atrazine applied may not exceed 2.5 lb ai/A per calendar year. **Do not exceed the total atrazine rate limitations specified on the atrazine label.** Control of relatively large cocklebur, sunflower, and velvetleaf may be reduced when NorthStar is applied with atrazine-containing products.

Table 3: Broadleaf Weeds Controlled with Tank Mixtures of NorthStar at 5 oz/A with Atrazine at 2-3 pt/A1

Broadleaf Weed Species[3]	Weed Height Range for Optimum Control (inches)
Cocklebur, Common	1-6
Jimsonweed	1-6
Kochia	1-4
Lambsquarters, Common	1-5
Morningglories	1-4
Nightshade, Eastern Black	1-6
Pigweed, Redroot	1-5
Pigweed, Smooth	1-5
Ragweed, Common	2-9
Ragweed, Giant	2-9
Smartweed, Pennsylvania	1-4
Sunflowers	2-9
Velvetleaf[2]	1-4
Waterhemp, Common	1-4
Waterhemp, Tall	1-4

[1]Tank mix applications of NorthStar and Atrazine may provide additional control of these weeds, especially where residual activity is desired. Other formulations of Atrazine may be substituted, provided the Atrazine dosage is adjusted to apply 1-1.5 lb ai/A. **Do not exceed the total Atrazine rate limitations specified on the atrazine label.**

[2]Crop oil concentrate plus liquid nitrogen fertilizer or ammonium sulfate are recommended spray adjuvants for velvetleaf control. Refer to **Mixing Procedures** for additional adjuvant information.

[3]Atrazine will not improve control of triazine-tolerant biotypes. Refer to Table 1 and Table 2 for a complete listing of weeds controlled by NorthStar.

Table 4: Grasses Controlled with Tank Mixtures of NorthStar at 5 oz/A in Combination with Accent at One-half to Full Rate Based on the Product's Allowable Use Rate[1]

Weed Species	Weed Height Range for Optimum Control (inches)
Barnyardgrass	1-4
Cupgrass, Woolly[2]	1-4
Foxtails, Giant	1-4
Foxtails, Green	1-4
Foxtails, Yellow	1-4
Johnsongrass, Rhizome	8-16
Johnsongrass, Seedling	4-12
Millet, Wild Proso[2]	1-4
Oats, Wild	1-4
Panicum, Fall	1-4
Panicum, Texas	1-4
Quackgrass	4-8
Shattercane	4-12
Signalgrass, Broadleaf	1-3
Sorghum, Volunteer	4-12

[1]NorthStar + Accent tank mixtures are for rescue control of escaped grasses and broadleaf weeds following preemergence treatments of a grass herbicide. Refer to Table 2 for a complete list of broadleaf weeds controlled by NorthStar. Refer to **Mixing Procedures** for adjuvant information.

[2]For improved control of heavy infestations, use the full labeled rate of Accent.

Table 5: Velvetleaf Control with Tank Mixtures of NorthStar at 5 oz/A with Resource at 4 oz/A[1]

Broadleaf Weed Species	Weed Height Range for Optimum Control (inches)
Velvetleaf[2]	1-6

[1]Refer to Table 1 and Table 2 for a complete list of weeds controlled by NorthStar.
[2]Improved velvetleaf control may be achieved by tank mixing NorthStar and Resource. Crop oil concentrate plus liquid nitrogen fertilizer or ammonium sulfate are recommended spray adjuvants when corn is less than 12 inches tall. Refer to **Mixing Procedures** for additional adjuvant information.

Table 6: Broadleaf Weeds Controlled with Tank Mixtures of NorthStar at 5 oz/A with Tough at 24 oz/A[1]

Broadleaf Weed Species	Weed Height Range for Optimum Control (inches)
Jimsonweed	1-6
Kochia	1-5
Pigweeds	1-5
Lambsquarters, Common	1-5

[1]Refer to Table 1 and Table 2 for a complete listing of weeds controlled by NorthStar. Improved broadleaf weed control may be obtained by applying a tank mixture of NorthStar and Tough. Refer to **Mixing Procedures** for adjuvant information.

STORAGE AND DISPOSAL

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

Pesticide Storage
Store in a cool, dry place. Do not store this product under wet conditions.

Pesticide Disposal
Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. 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.

Container Handling [less than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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 and 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.
For other product information, contact Gowan Company, LLC or see Safety Data Sheet.

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and User.

Gowan Company, LLC warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY, LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY, LLC'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY LLC'S SOLE DISCRETION.

[EPA Text Pending: (To EPA 5-21-24)

PRIMISULFURON-METHYL	GROUP	2	HERBICIDE
DICAMBA	GROUP	4	HERBICIDE

[Booklet Back Cover]

NorthStar® Herbicide

For postemergence weed control in field corn (grown for grain, silage, or seed) and popcorn

ACTIVE INGREDIENTS:	**% BY WT**
Primisulfuron-methyl: 3-[4,6-Bis(difluoromethoxy)-pyrimidin-2-yl]-1-(2-methoxycarbonyl-phenylsulfonyl) urea	7.5%
Sodium salt of dicamba (3,6-dichloro-*o*-anisic acid*)	43.9%
Other Ingredients:	48.6%
TOTAL:	100.0%

*This product contains 39.9% as acid equivalent of 3,6-dichloro-o-anisic acid (dicamba).

NorthStar® Herbicide is formulated as a water-dispersible granule (WDG) and contains 0.075 lb primisulfuron-methyl per lb of product and 0.339 lb dicamba acid per lb of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

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 directions for use in attached booklet.] [See additional precautionary statements and directions for use inside booklet.]

FIRST AID	
If in eyes	• 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 eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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 do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center, doctor, or going for treatment. Contact **1-888-478-0798** for emergency medical treatment information.	

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under “Agricultural Use Requirements” in the Directions for Use section for information about this standard.

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, 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.

GROUNDWATER ADVISORY

Dicamba has been identified in groundwater sampling under vulnerable conditions. Primisulfuron-methyl has properties and characteristics associated with chemicals detected in groundwater. There is the possibility that Dicamba and Primisulfuron-methyl in NorthStar may leach through soil to groundwater, especially where soils are permeable and the water table is shallow. Consult with the pesticide state lead agency or local agricultural agencies for information regarding soil permeability and aquifer vulnerability in your area.

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 ground water. This product is classified as having high potential for reaching surface water 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 primisulfuron-methyl and dicamba 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.

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. It is critical to avoid contaminating the forage sources and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the **Spray Drift Management** section of this label.

CHEMIGATION

Do not apply this product through any type of irrigation system.

NET CONTENTS:

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EPA Est. No.

Produced For:
Gowan Company, LLC
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Yuma, AZ 85366-5569