

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.

Washington, D.C. 20460

NOTICE OF PESTICIDE:

X Registration
Reregistration

(under FIFRA, as amended)

EPA Reg. Number:

Date of Issuance:

83100-74

5/17/24

Term of Issuance:

Unconditional

Name of Pesticide Product:

Nicosulfuron 56.2% + Metsulfuron

15.0% WG

Name and Address of Registrant (include ZIP Code):

Albaugh, LLC 1525 NE 36th Street Ankeny, IA 50021

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

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

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

Continues page 2

Signature of Approving Official:

Date:

5/17/24

Shaja B. Joyner, Product Manager 20

Fungicide-Herbicide Branch

Registration Division 7505T

Page 2 of 2 EPA Reg. No. 83100-74 Case No. 00483920

EPA Form 8570-6

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 83100-74."
- 4. Submit one copy of the final printed label for the record before you release the product for shipment.

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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

Basic CSF dated 04/04/2023

If you have any questions, please contact Francisco Llarena-Arias by telephone on 202-566-2816 or by e-mail at <a href="mailto:llarena-arias.francisco@epa.gov">llarena-arias.francisco@epa.gov</a>

**Enclosure** 

NICOSULFURON	GROUP	2	HERBICIDE
METSULFURON-METHYL	GROUP	2	HERBICIDE

# Nicosulfuron 56.2% + Metsulfuron 15.0% WG

For Use on Established Bermudagrass Pastures and Hay Meadows, Bermudagrass Turf (Unimproved Only).

#### **ACTIVE INGREDIENTS:**

Nicosulfuron: 2-[[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]aminosulfonyl]-N,N-dimethyl-3-pyridinecarboxamide	) 56.2%
Metsulfuron-Methyl: Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2yl)amino]carbonyl] amino] sulfonyl]benzoate	15.0%
OTHER INGREDIENTS:	28.8%
TOTAL:	100.0%

This product contains 3.19 lb/gal Nicosulfuron and 0.85 lb/gal Metsulfuron-methyl.

# KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiquette, busque a alguien para que se la explique a usted detalle. (If you **DO NOT** understand the label, find someone to explain it to you in detail.)

FIRST AID		
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>	
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
• HOTHINE NUMBERS		

#### **HOTLINE NUMBERS**

Have the product container or label with you when calling a poison control center (1-800-222-1222) or doctor or going for treatment. For non-emergency exposure information on this product, call 1-888-347-6732 (7 days/week, 24-hr). For non-emergency information on this product, you may also contact the National Pesticides Information Center (NPIC) at 1-800-858-7378 (Monday through Friday, 8AM to 12PM PST) or at <a href="http://npic.orst.edu">http://npic.orst.edu</a>. For medical emergencies, dial 911.

[See [inside] booklet for [additional] [complete] [First Aid,] [Precautionary Statements,] [Directions For Use,] [Storage and Disposal,] [and] [Conditions of Sale and Warranty].]

For 24-hour chemical spill, leak, fire, exposure or accident response information, call CHEMTREC toll free at 1-800-424-9300.

Manufactured [For][By]:

Albaugh, LLC 1525 NE 36<sup>th</sup> Street Ankeny, IA 50021 [Product of \_\_\_\_\_

EPA Reg. No.: 83100-XX
EPA Est. No.:

O5/17/2024

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 83100-74

Net Contents:\_\_\_\_ [Pounds/Kg] [Batch No.: \_\_\_\_] [Lot No.: \_\_\_\_]

[OPTIONAL MARKETING GRAPHICS]



{Note to Reviewer: Either Batch or Lot No. will be selected and included on container label based on what method and container is used by manufacturer.}

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

# Applicators and other handlers must wear:

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

# **USER SAFETY REQUIREMENTS**

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 STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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

# **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Wash thoroughly with soap and water after handling and 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. If pesticide gets on skin, wash immediately with soap and water.
- 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.

#### **ENVIRONMENTAL HAZARDS**

**DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. **DO NOT** contaminate water when cleaning equipment or when disposing of equipment wash waters or rinsate. **DO NOT** apply where/when conditions could favor runoff.

# **Groundwater Advisory**

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

# **Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. 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 including ponds, streams, and springs will reduce the potential loading of nicosulfuron and metsulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### Windblown Soil Particles Advisory

This product 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 affects the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

# **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 site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

# 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.

[NOTE TO REVIEWER: The statement "Not for use in \_\_\_\_\_" (e.g. Not for use in California) may be added or removed from Directions For Use as required.]

#### 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 4 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, including plants, soil, or water is:

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves (including butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all ≥14 mils

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Non-crop weed control is not within the scope of the Worker Protection Standard.

**DO NOT** enter or allow others to enter the treated area until sprays have dried.

# PRODUCT INFORMATION

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is registered for use on bermudagrass pastures and hay meadows, and for use in non-crop areas. Check with your State extension or Department of Agriculture before use to be certain **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is registered in your State.

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is a dry-flowable granule that controls or suppresses broadleaf and grass weeds. **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is mixed in water and applied as a uniform broadcast spray. A spray adjuvant must be used in the spray mix unless otherwise specified on this label. **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is noncorrosive, nonflammable, nonvolatile, and does not freeze.

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** controls broadleaf weeds by pre-emergence and post-emergence activity and grass weeds by post-emergence activity. For best results, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** to young, actively growing weeds. Weeds hardened off by cold weather or drought stress may not be controlled. The use rate depends upon the weed spectrum and size of weeds at application. The degree and duration of control may depend on the following factors:

- Weed spectrum and infestation intensity
- Weed size and maturity at application
- Environmental conditions during and following treatment
- · Application rate and coverage

It is permissible to treat intermittently flooded low lying sites, seasonally dry flood plains, and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps, and bogs after water has receded as well as seasonally dry flood deltas. **DO NOT** make applications to natural or man-made bodies of water including lakes, reservoirs, ponds, streams, and canals.

# **Biological Activity and Environmental Conditions**

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is absorbed through the foliage and roots of weeds, rapidly inhibiting their growth. Leaves of susceptible plants appear chlorotic from 1 - 3 weeks after application, and the growing point subsequently dies. The final effects on annual weeds are evident about 4 - 6 weeks after application. The ultimate effects on perennial weeds occur in the growing season following application.

One to two inches of rainfall or sprinkler irrigation (enough to wet the top 2 - 3 inches of soil profile) may be needed to move **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** into the weed root zone before the next flush of broadleaf weeds

emerge. The amount of moisture required for sufficient activation increases with crop or weed residue and for finer textured soils. Without sufficient rainfall or sprinkler irrigation to move **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** into the weed root zone, weeds that germinate after treatment will not be controlled.

Application of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** provides the best control in vigorously growing pastures that shade competitive weeds. Weed control in areas of thin grass may not be as satisfactory. However, a bermudagrass canopy that is too dense at application can intercept spray and reduce weed control.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**. Weed control or suppression may be reduced if rainfall or sprinkler irrigation occurs within 4 hours after application.

Weed control needs to be part of an overall pasture management plan which includes good fertility, adequate moisture (rainfall, irrigation), insect and rodent control, and other agronomic practices which maximize bermudagrass growth. Consult your State Cooperative Extension service, local agricultural dealer, professional consultant, or other qualified authority for specific instructions regarding proper management of bermudagrass pastures.

#### **Use Restrictions:**

- **DO NOT** apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots extend, or in locations where the product may be washed or moved into contact with their roots, as injury or loss of desirable trees or other plants may result.
- **DO NOT** use on lawns, walks, driveways, tennis courts, golf courses, athletic fields, or other high-maintenance, and fine turfgrass areas.
- DO NOT apply to irrigated land where the tailwater will be used to irrigate crops.
- DO NOT apply to frozen or snow-covered ground as surface runoff may occur.
- DO NOT apply more than 3.5 ounces (0.088 lb. nicosulfuron a.i. and 0.023 lb. metsulfuron-methyl a.i.) of Nicosulfuron 56.2% + Metsulfuron 15.0% WG per acre per year for use in bermudagrass pastures ,unimproved bermudagrass turf, and non-crop uses.
- DO NOT use Nicosulfuron 56.2% + Metsulfuron 15.0% WG in the following counties of Colorado: Alamosa, Conejos, Costilla, Rio Grande, and Saguache.
- DO NOT apply through any type of irrigation system.
- **DO NOT** make more than 2 applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** to all use sites per year when using reduced application rates. Allow at least 16 days between applications.
- DO NOT apply more than 2.15 ounces (0.053 lb. nicosulfuron a.i. and 0.014 lb. metsulfuron-methyl a.i.) of Nicosulfuron 56.2% + Metsulfuron 15.0% WG per acre in a single broadcast application for all use sites. For spot applications, DO NOT apply more than 3.5 ounces (0.088 lb. nicosulfuron a.i. and 0.023 lb. metsulfuron-methyl a.i.) in a single application or annually.

# **Use Precautions:**

- Grass species or varieties may differ in their response to various herbicides. Some bermudagrass varieties including World Feeder, Midland 99, and Jiggs are more sensitive to Nicosulfuron 56.2% + Metsulfuron 15.0% WG and are more likely to exhibit crop response in the form of temporary yellowing or stunting. Albaugh, LLC advises that you first consult your State experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of Nicosulfuron 56.2% + Metsulfuron 15.0% WG to a small area.
- Under certain conditions including heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after Nicosulfuron 56.2% + Metsulfuron 15.0% WG application, temporary discoloration and/or grass injury may occur. Nicosulfuron 56.2% + Metsulfuron 15.0% WG must not be applied to grass that is stressed by severe weather conditions, drought, low fertility, water saturated soil, disease, or insect damage, as grass injury may result. Severe winter stress, drought, disease, or insect damage before or following application also may result in grass injury.
- Applications may make some toxic plants more palatable to cattle as the weeds are dying. DO NOT graze treated
  areas until toxic plants are dry and unpalatable to livestock.
- Applications of Nicosulfuron 56.2% + Metsulfuron 15.0% WG to pastures undersown with legumes may cause injury to the legumes.
- To reduce the potential for movement of treated soil due to wind erosion, **DO NOT** apply to powdery dry or light sandy soils until they have been stabilized by rainfall, trashy mulch, reduced tillage, or other cultural practices. Injury to immediately adjacent crops may occur when treated soil is blown onto land used to produce crops other than bermudagrass.
- For ground applications applied to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. The addition of 2,4-D may improve weed control under these conditions.
- Applications of Nicosulfuron 56.2% + Metsulfuron 15.0% WG to grass grown for seed, sod, or sprigging has not been evaluated for all bermudagrass varieties. Use of Nicosulfuron 56.2% + Metsulfuron 15.0% WG may result in reduced yield and needs to be evaluated by the user under local conditions. To the extent consistent with applicable law, this risk must be assumed by the user.

#### WEED RESISTANCE MANAGEMENT

For resistance management, **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical
  information related to herbicide use and crop rotation, and that considers tillage ( or other mechanical control
  methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop
  and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (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; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Albaugh at 1-800-247-8013.

# **INTEGRATED PEST MANAGEMENT**

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your State Cooperative Extension service, professional consultants, or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### MANDATORY SPRAY DRIFT MANAGEMENT

# 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.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- 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.

# **Ground Boom Applications:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or target vegetation unless making pasture and rangeland applications, in which case applicators may apply with a nozzle height no more than 4 feet above the crop or target vegetation.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- DO NOT apply when wind speeds exceed 10 miles per hour at the application site.
- DO NOT apply during temperature inversions.

#### **Boom-less Ground Applications:**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- DO NOT apply when wind speeds exceed 10 miles per hour at the application site.
- DO NOT apply during temperature inversions.

# **Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

# **Handheld Technology Applications:**

Take precautions to minimize spray drift.

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 must 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 must 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 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. 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.

# **AGRICULTURAL USES**

# BERMUDAGRASS PASTURES APPLICATION TIMING

Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** to bermudagrass pastures and hay meadows that have been established for at least 1 growing season. For best results, time applications to young, actively growing broadleaf or grass weeds.

Applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may result in temporary yellowing or stunting of bermudagrass. Crop response is more likely if bermudagrass is stressed from adverse environmental conditions (including drought, extreme temperatures, or moisture), abnormal soil conditions (e.g., soils low in potassium), or cultural practices (e.g., over-grazing).

Applications targeting winter and early season weeds while the bermudagrass is dormant will minimize potential for crop response. Spring or summer applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may temporarily reduce grass production. Crop response is minimized by treating when bermudagrass has less than 2" of new growth during initial green-up or by treating soon after cutting for hay (before 1 - 2 inches of new bermudagrass growth appears).

Weeds may continue to germinate throughout the growing season. Also, regrowth of treated weeds may occur due to adverse environmental conditions. To control weeds under these conditions, a sequential application of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be necessary. Allow at least 16 days between applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**.

#### **USE RATES**

Apply 1.4 - 2.15 oz. (0.035 - 0.053 lb. nicosulfuron a.i. and 0.009 - 0.014 lb. metsulfuron-methyl a.i.) of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** per acre as a broadcast application to established bermudagrass pastures. **DO NOT** apply more than 2.15 ounces (0.053 lb. nicosulfuron a.i. and 0.014 lb. metsulfuron-methyl a.i.) of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** per acre in a single broadcast application for all use sites.

For spot applications, mix 3.5 oz. (0.088 lb. nicosulfuron a.i. and 0.023 lb. metsulfuron-methyl a.i.) of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** per 25 gals. of water and cover no less than 1 acre for treatment of weeds on the **WEEDS CONTROLLED OR SUPPRESSED** list. **DO NOT** apply more than 3.5 ounces (0.088 lb. nicosulfuron a.i. and 0.023 lb. metsulfuron-methyl a.i.) in a single application or annually when spot treating.

# **SPRAY ADJUVANTS**

Unless otherwise directed, applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** must include a surfactant. In addition, ammonium nitrogen fertilizer and/or antifoaming agents can be used unless specifically prohibited by tank mix partner labeling. Consult local Albaugh, LLC fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients.

# **Nonionic Surfactant (NIS)**

- NIS is the preferred surfactant under most conditions.
- Apply at 0.25% v/v (1 quart per 100 gallons spray solution) or 0.5% under arid conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

# **Crop Oil Concentrate (COC)**

- Use of COC may increase the potential for bermudagrass injury.
- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- Oil adjuvants must contain at least 80% high quality petroleum (mineral) with at least 15% surfactant emulsifiers

# Ammonium Nitrogen Fertilizer

- Use 2 quarts/acre of a high-quality urea ammonium nitrate (UAN), e.g., 28%N or 32%N, or 2 pounds/acre of a spray grade ammonium sulfate (AMS). Use 4 quarts/acre UAN or 4 pounds/acre AMS under arid conditions.
- DO NOT use low rates of liquid fertilizer as a substitute for surfactant.
- See Tank Mixtures with Liquid Solution Fertilizer for instructions on using fertilizer as a carrier in place of water.

# **Special Adjuvant Types**

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions. Use of combination adjuvant products may increase the potential for bermudagrass injury.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Albaugh, LLC Consult separate Albaugh, LLC technical bulletins for detailed information before using adjuvant types not specified on this label.

# WEED CONTROL INFORMATION

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be applied post-emergence to control or suppress weeds listed on, but not limited to, this label. For best results, treat weeds when they are small and actively growing. Unless otherwise directed, treat when broadleaf weeds are less than 4" and grass weeds are less than 2" tall or in diameter (natural size - not after mowing or grazing).

Broadleaf pasture species, including alfalfa and clover, are highly sensitive to **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** and will be severely stunted or injured.

#### WEEDS CONTROLLED OR SUPPRESSED

1.4 Oz. (0.035 lb. nicosulfuron a.i. and 0.009 lb. metsulfuron-methyl a.i.) per Acre			
Annual Bluegrass	Field Pennycress (Fanweed)	Rescuegrass <sup>1</sup>	
Annual Marshelder	Filaree	Russian Thistle*2	
Barnyardgrass	Flixweed*2	Ryegrass*2 (Italian, Perennial)	
Bitter Sneezeweed	Foxtails (Bristly, Giant, Green, Yellow*)	Sandbur* (Field, Longspine)	
Blackeyed-Susan	Goosegrass <sup>1</sup>	Shattercane <sup>2</sup>	
Blue/Purple Mustard*	Groundsel (Common)	Shepherd's Purse	
Broadleaf Signalgrass	Hemp Dogbane <sup>1</sup>	Smallseed Falseflax	
Broomweed, Common	Henbit	Smartweed (Green, Ladysthumb, Pale,	
·		PA)	
Buckbrush <sup>1</sup>	Horsemint (Beebalm)	Snow Speedwell	
Bur Buttercup (Testiculate)	Horsenettle <sup>1</sup>	Sorghum Almum	
Burclover	Itchgrass	Tansymustard*	
Burcucumber	Japanese Brome*1,2	Timothy	
Buttercup	Jimsonweed	Treacle Mustard (Bushy Wallflower)	
Canada Thistle*1	Johnsongrass*2	Tumble/Jim Hill Mustard	
Carolina Geranium	Kochia*2	Volunteer Cereals (Barley, Oats, Rye,	
		Triticale, Wheat)	
Coast Fiddleneck (Tarweed)	Lambsquarters (Common, Slimleaf)	Volunteer Sunflower*	
Common Chickweed	Little Barley	Waterpod	
Common Mullein	Marestail <sup>2</sup>	Western Snowberry <sup>1</sup>	
Common Purslane	Mayweed Chamomile	Wild Buckwheat*1	
Common Yarrow	Miners Lettuce	Wild Carrot	
Conical Catchfly	Morningglory (Ivyleaf, Pitted, Tall)	Wild Garlic*	
Corn Gromwell*1	Panicum (Browntop, Fall, Texas)	Wild Mustard	
Cowcockle	Pigweed <sup>2</sup> (Redroot, Smooth, Tumble)	Wild Oats	
Crabgrass, Large*1	Plains Coreopsis	Wild Proso Millet	
Curly Dock	Plantain	Wild Sunflower*1	
Cutleaf Evening Primrose*1	Pokeweed <sup>1</sup>	Wirestem Muhly	
Dandelion	Prickly Lettuce*2	Witchgrass	
Dogfennel	Prostrate Knotweed*1	Woolly Croton*	
Downy Brome <sup>1</sup>	Purple Scabious	Woolly Cupgrass	
False Chamomile	Quackgrass <sup>1</sup>	, , , , , , , , , , , , , , , , , , ,	
	(0.044 - 0.053 lb. nicosulfuron a.i. and (	0.012 - 0.014 lb. metsulfuron-methyl	
	a.i.) per Acre	_	
Annual Sowthistle	Dewberry*1	Seaside Arrowgrass	
Aster	Goldenrod	Sericea Lespedeza*	
Bittercress	Honeysuckle <sup>1</sup>	Silky Crazyweed (Locoweed)	
Blackberry*1	Maximilian Sunflower	Spotted Knapweed*1	
Broom Snakeweed*1	Multiflora Rose*1	Sweet Clover	
Buckhorn Plantain <sup>1</sup>	Musk Thistle*	Teasel <sup>1</sup>	
Chicory	Pensacola Bahiagrass*	Wild Lettuce	
Clover	Plumeless Thistle <sup>1</sup>	Wood Sorrel	
Cocklebur	Redstem Filaree	Vaseygrass*1	
Corn Cockle	Rough Fleabane	Yankeeweed	
Crown Vetch	Scotch Thistle*	1	
*Coo the CDECIEIC WEED INCTDUCT	ONC acation	•	

<sup>\*</sup>See the SPECIFIC WEED INSTRUCTIONS section.

<sup>2</sup>Naturally occurring resistant biotypes of these weeds are known to occur. See **WEED RESISTANCE MANAGEMENT** section of the label for more information.

Weed suppression is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

#### **SPECIFIC WEED INSTRUCTIONS**

Thorough spray coverage of all weed species listed below is very important.

**Blackberry**, **Dewberry**, **and Multiflora Rose**: For suppression with broadcast applications, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 2.15 oz. (0.053 lb. nicosulfuron a.i. and 0.014 lb. metsulfuron-methyl a.i.) per acre. Apply in the spring, soon after plant is fully leafed and is less than 3 ft. tall. For control with broadcast applications, **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be tank mixed with 0.33 - 0.75 oz. of CIMARRON® PLUS HERBICIDE (EPA Reg. No. 432-1572, containing metsulfuron-methyl and chlorsulfuron) per acre.

Blue/Purple Mustard, Flixweed, and Tansymustard: For best results, apply Nicosulfuron 56.2% + Metsulfuron 15.0% WG tank mixtures with 2,4-D post-emergence to mustards, but before bloom.

**Broom Snakeweed:** For best results, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 2.15 oz. (0.053 lb. nicosulfuron a.i. and 0.014 lb. metsulfuron-methyl a.i.) per acre in the fall.

Canada Thistle: For suppression, apply either Nicosulfuron 56.2% + Metsulfuron 15.0% WG or Nicosulfuron 56.2% + Metsulfuron 15.0% WG plus 2,4-D in the spring after the majority of thistles have emerged and are small (rosette stage to 6" elongating stems) and actively growing. The application will inhibit the ability of emerged thistles to compete with grass.

Corn Gromwell, Cutleaf Evening Primrose, and Prostrate Knotweed: Apply Nicosulfuron 56.2% + Metsulfuron 15.0% WG when weeds are actively growing, are no larger than 2" tall, and when crop canopy will allow thorough coverage. Tank mixing 2,4-D with Nicosulfuron 56.2% + Metsulfuron 15.0% WG can improve results.

**Crabgrass (Large):** For best suppression of Large Crabgrass, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in a tank mix with 0.156 - 0.256 lb. glyphosate per acre. Note that "Large Crabgrass" refers to a type of crabgrass - not the size of crabgrass. For best results, you must treat crabgrass when it is newly germinated to less than 2" in height (not after mowing).

Japanese Brome: For best results, use Nicosulfuron 56.2% + Metsulfuron 15.0% WG in a tank mix with glyphosate. Johnsongrass: For best results on seedling Johnsongrass, apply Nicosulfuron 56.2% + Metsulfuron 15.0% WG before seedlings reach 12" in height. For best results on rhizome Johnsongrass, apply Nicosulfuron 56.2% + Metsulfuron 15.0% WG when Johnsongrass is from 10" - 18" in height. If treating after pasture has been mowed, treat about 10 - 14 days after mowing when Johnsongrass has 6" - 8" of leaf surface for herbicide to contact.

**Kochia, Russian Thistle, and Prickly Lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in a tank mix with dicamba and 2,4-D. Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing.

Musk Thistle and Scotch Thistle: Apply Nicosulfuron 56.2% + Metsulfuron 15.0% WG at 1.4 - 2.15 oz. (0.035 - 0.053 lb. nicosulfuron a.i. and 0.009 - 0.014 lb. metsulfuron-methyl a.i.) per acre in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Certain biotypes of Musk and Scotch Thistles are less sensitive to Nicosulfuron 56.2% + Metsulfuron 15.0% WG and may not be fully controlled with Nicosulfuron 56.2% + Metsulfuron 15.0% WG. Consult with your local Albaugh, LLC representative, dealer or applicator for specific use rate and tank mix instructions for your area. Fall applications needs to be made before the soil freezes.

**Pensacola Bahiagrass:** Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 1.75 - 2.15 oz. (0.044 - 0.053 lb. nicosulfuron a.i. and 0.012 - 0.014 lb. metsulfuron-methyl a.i.) per acre after green-up in the spring but before bahiagrass seedhead formation. Apply when moisture is sufficient to enhance grass growth.

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, the use of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** can clear the areas of useful forage until the bermudagrass has time to cover the area. Therefore, **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** treatments needs to be spread out over a period of years. **DO NOT** apply to an entire farm or ranch in 1 year. Fertilization (particularly with nitrogen and potassium) and/or replanting may accelerate the process of reestablishment of bermudagrass.

Under heavy bahiagrass pressure, grazing pressure, or adverse weather conditions (heat and drought), bahiagrass regrowth may occur.

**DO NOT** use **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** for the control of common or Argentine bahiagrass. Also, **DO NOT** apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

**Ryegrass (Italian, Perennial):** For best results when ryegrass is greater than 2" in height, for heavy populations or for later flushes, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 1.4 oz. (0.035 lb. nicosulfuron a.i. and 0.009 lb. metsulfuron-methyl a.i.) per acre and follow with a second application at 1.4 oz. per acre in 3 - 4 weeks. In areas where known populations of ALS herbicide resistant ryegrass are known to exist, control may not be satisfactory.

**Sandbur:** Apply when sandbur is newly germinated to 1.5" tall. Make applications when bermudagrass is less than 4" tall following

green-up in the spring or after cutting for hay. Tall, dense stands of bermudagrass can intercept spray and reduce sandbur control.

In some areas, sandbur may overwinter and start the new season with an established root system. For overwintering sandbur or newly germinated sandbur that is greater than 1.5" tall, applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may only suppress growth resulting in a reduction in sandbur seedheads. For best results in these situations, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in a tank mix with 0.156 - 0.257 lb. glyphosate per acre.

A follow-up application of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be necessary to control subsequent germination (flushes) of sandbur following the first application or when the first application was made to larger sandbur or under unfavorable environmental conditions.

Sandbur Management must be part of an overall pasture management plan which includes good fertility, adequate moisture (rainfall, irrigation), insect and rodent control, and other agronomic practices which maximize bermudagrass growth. In contrast, sandbur control in areas with thin stands of bermudagrass may not be satisfactory.

**Sericea Lespedeza:** For best results, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 1.75 - 2.15 oz. (0.044 - 0.053 lb. nicosulfuron a.i. and 0.012 - 0.014 lb. metsulfuron-methyl a.i.) per acre beginning at flower bud through the full bloom stage of growth. **DO NOT** make applications if drought conditions exist at the time of application.

**Spotted Knapweed:** For best results, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** with dicamba and 2,4-D. **Sunflower (Wild or Volunteer):** Apply either **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** or **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** plus 2,4-D after the majority of sunflowers have emerged, are 2" - 4" tall, and are actively growing. Use spray volumes of at least 3 gals. by air or 10 gals. by ground.

**Vaseygrass:** Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 1.4 - 2.15 oz. (0.035 - 0.053 lb. nicosulfuron a.i. and 0.009 - 0.014 lb. metsulfuron-methyl a.i.) per acre when Vaseygrass is from 10" - 14" in height or diameter. If treating after pasture has been mowed, treat about 10 - 14 days after mowing when Vaseygrass has 6" - 8" of leaf surface for herbicide to contact. A repeat application may be necessary to achieve an adequate level of control.

**Wild Buckwheat:** For best results, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** plus 2,4-D when plants have no more than 3 true leaves (not counting the cotyledons). If plants are not actively growing, delay treatment until environmental conditions favor active weed growth.

**Wild Garlic:** Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in the early spring when wild garlic is less than 12" tall with 2" - 4" of new growth. Typical symptoms of dying garlic plants may not be noticeable for 2 - 5 weeks.

**Woolly Croton:** Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in the late spring or early summer from cotyledon through 2 true-leaf stage.

Yellow Foxtail: For best results, use Nicosulfuron 56.2% + Metsulfuron 15.0% WG in a tank mix with glyphosate.

# **TANK MIXTURES**

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be tank mixed with other suitable registered herbicides, insecticides, and fungicides. 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.

Since formulations may be changed and new ones introduced, it is advised that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures. For best results, use of spray equipment having continuous agitation is advised.

# With Herbicides

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be tank mixed with other suitable registered herbicides containing hexazinone to control weeds listed as suppressed, weeds resistant to **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**, or weeds not listed under Weeds Controlled or Suppressed. Some herbicide tank mixes may antagonize grass weed control.

CIMARRON® PLUS HERBICIDE (EPA Reg. No. 432-1572; contains metsulfuron-methyl and chlorsulfuron): Nicosulfuron 56.2% + Metsulfuron 15.0% WG may be tank mixed with 0.33 - 0.75 oz. of CIMARRON® PLUS HERBICIDE (EPA Reg. No. 432-1572; contains metsulfuron-methyl and chlorsulfuron) per acre for control of blackberry, dewberry, multiflora rose, and honeysuckle. For best results on multiflora rose, application needs to be made in the

spring, soon after plants are fully leafed and are less than 3 feet tall.

CIMARRON® MAX HERBICIDE (EPA Reg. No. 432-1555; contains metsulfuron-methyl, 2,4-D and dicamba): Nicosulfuron 56.2% + Metsulfuron 15.0% WG may be tank mixed with CIMARRON® MAX HERBICIDE (EPA Reg. No. 432-1555; contains metsulfuron-methyl, 2,4-D and dicamba) at Rate I to Rate II for additional control of blackberry, ragweed, and other brush and broadleaf weeds.

**2,4-D:** For additional broadleaf weed control **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be tank mixed with amine or ester formulations of 2,4-D at a rate of 0.5 - 1 lb. a.i. per acre.

**Glyphosate: Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be tank mixed with 0.156 - 0.256 lb. glyphosate per acre for improved control of foxtails, little barley, ryegrass, and sandbur or for improved suppression of crabgrass, Japanese brome, and rescuegrass.

Post-emergence application of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** plus glyphosate may result in temporary yellowing or stunting of bermudagrass. **DO NOT** make a tank mix application of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** plus glyphosate if the bermudagrass is under stress from drought or any other reason as it may result in unacceptable crop injury.

# With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in fertilizer solution.

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is added. Use of this mixture is likely to result in temporary grass yellowing or burn as commonly seen with liquid fertilizer applications.

If using low rates of liquid nitrogen fertilizer (between 5% and 50% of the spray solution volume) in the spray solution, the addition of a non-ionic surfactant is necessary. Add surfactant at 0.25 pint per 100 gals. of spray solution (0.03% v/v).

**DO NOT** use a spray adjuvant other than non-ionic surfactant.

When using high rates of liquid nitrogen fertilizer (greater than or equal to 50% of the spray solution volume) in the spray solution, adding spray adjuvant(s) increases the risk of grass injury. Consult your agricultural dealer, consultant, fieldman, or Albaugh, LLC representative for specific directions before adding an adjuvant to these tank mixtures.

If 2,4-D is included with **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** and liquid nitrogen fertilizer mixture, ester formulations tend to be more compatible (See manufacturer's label). **DO NOT** add spray adjuvants when using **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** in tank mix with 2,4-D ester and liquid nitrogen fertilizer solutions greater than 5% of the spray volume.

When making a combined application of liquid fertilizer and herbicides, thorough spray coverage of the weeds is still important. Flat fan nozzles delivering a medium size droplet will provide best results. Cluster nozzles delivering a very course droplet may not provide satisfactory weed control.

**DO NOT** use low rates of liquid fertilizers as a substitute for spray adjuvants. **DO NOT** use with liquid fertilizer solutions with a pH less than 3.0.

# With Insecticides and Fungicides

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** may be tank mixed or used sequentially with insecticides and fungicides registered for use on pastures.

However, under certain conditions (drought stress or cold weather), tank mixes or sequential applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** with organophosphate insecticides (e.g., parathion) may produce temporary grass yellowing or, in severe cases, grass injury.

The potential for grass injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application. Test these mixtures in a small area before treating large areas.

DO NOT use Nicosulfuron 56.2% + Metsulfuron 15.0% WG plus malathion, as grass injury will result.

# **NON-CROP USES**

# **UNIMPROVED BERMUDAGRASS TURF AND NON-CROP SITES**

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG**. is registered for the control of grass and broadleaf weeds in Bermudagrass turf and bare ground sites on private, public, and military lands as follows: uncultivated nonagricultural areas (e.g., airports, highway, railroad, and utility rights-of-way, sewage disposal areas); uncultivated agricultural areas (e.g., farmyards, fuel storage areas, fence rows, soil bank land, barrier strips); and, industrial sites (e.g., lumberyards, pipelines, tank farms) including grazed areas on all these sites. It is also advised for the control of certain noxious and troublesome weeds.

Application can be made any time of the year, except when the soil is frozen. For best results, apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** at 1.4 - 2.15 oz. (0.035 - 0.053 lb. nicosulfuron a.i. and 0.009 - 0.014 lb. metsulfuron-methyl a.i.) per acre with a surfactant when weeds are young and actively growing. For spot applications, use 3.5 oz. (0.088 lb. nicosulfuron a.i. and 0.023 lb. metsulfuron-methyl a.i.) of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** and 2 - 4 pts. of non-ionic surfactant per 25 gals. of water and cover no less than 1 acre. If **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is tank mixed with a herbicide that includes an adequate adjuvant package, no additional adjuvant is required.

Temporary leaf yellowing or stunting is more likely to occur at higher rates or when bermudagrass is under environmental stress e.g., drought.

# **GRAZING/HAYING**

There are no grazing or haying restrictions for non-lactating or lactating livestock including cattle, horses, sheep, goats, and other animals when using **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** as directed. Grazing animals **DO NOT** have to be moved off the pasture before, during, or after applying **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**.

#### **CROP ROTATION**

Before using **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**, carefully consider your crop rotation plans and options. For rotational flexibility, **DO NOT** treat all of your pasture acres at the same time.

# MINIMUM ROTATIONAL INTERVALS

Minimum rotation intervals\* are determined by the rate of breakdown of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** applied. **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** breakdown in the soil is affected by soil pH, presence of soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture increase **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** breakdown.

Of these 3 factors, only soil pH remains relatively constant. Soil temperature, and to a greater extent, soil moisture, can vary significantly from year to year and from area to area. For this reason, soil temperatures and soil moisture must be monitored regularly when considering crop rotations.

\*The minimum rotation interval represents the period of time from the last application to the anticipated date of the next planting.

### SOIL pH LIMITATIONS

Nicosulfuron 56.2% + Metsulfuron 15.0% WG must not be used on soils having a pH above 7.9, as extended soil residual activity could extend crop rotation intervals beyond normal. Under certain conditions, Nicosulfuron 56.2% + Metsulfuron 15.0% WG could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of Nicosulfuron 56.2% + Metsulfuron 15.0% WG.

# **CHECKING SOIL pH**

Before using **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0" - 4" samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on specified soil sampling procedures.

## **BIOASSAY**

A field bioassay must be completed before rotating to any crop or grass species/variety not listed in the Rotation Intervals Table, or if the soil pH is not in the specified range, or if the use rate applied is not specified in the table.

To conduct a field bioassay, grow test strips of the crop(s) or grass(es) you plan to grow the following year in fields previously treated with **Nicosulfuron 56.2% + Metsulfuron 15.0% WG**. Crop or grass response to the bioassay will indicate whether or not to rotate to the crop(s) or grass(es) grown in the test strips.

If a field bioassay is planned, check with your local Agricultural dealer or Albaugh, LLC representative for information detailing the field bioassay procedure.

#### **ROTATION INTERVALS**

Location	Crop or Grass Species	Maximum Nicosulfuron 56.2% + Metsulfuron 15.0% WG Rate on Pasture (Oz./Acre)*	Minimum Rotation Interval (Months)
	Alfalfa, Red Clover, White Clover, Sweet	2.8	12
All areas	Clover		
	Bermudagrass, Bluegrass, Ryegrass, Tall	2.8	4
	Fescue		
	Wheat (Except Durum)	2.8	4
	Durum, Barley, Oat	2.15	10
Areas with Soil pH of	STS Soybeans	1.4	6
7.0 or Less	Field Corn	1.4	12
*1.4 oz. of Nicosulfuror	<b>1 56.2% + Metsulfuron 15.0% WG</b> contains 0.035	blb. of nicosulfuron a.i. and 0.009 lb. of	metsulfuron-methyl

# APPLICATION INFORMATION

#### **Product Measurement**

a.i.

**Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is measured using the **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** volumetric measuring cylinder. The degree of accuracy of this cylinder varies by +/- 7.5%. For more precise measurement, use scales calibrated in ounces.

#### MIXING INSTRUCTIONS

- Fill the tank 1/4 1/3 full of water (If using liquid nitrogen fertilizer solution in place of water, see the TANK MIXTURES section for additional details).
- 2. While agitating, add the required amount of Nicosulfuron 56.2% + Metsulfuron 15.0% WG.
- 3. Continue agitation until the Nicosulfuron 56.2% + Metsulfuron 15.0% WG is fully dispersed, at least 5 minutes.
- Once the Nicosulfuron 56.2% + Metsulfuron 15.0% WG is fully dispersed, maintain agitation and continue filling tank with water. Nicosulfuron 56.2% + Metsulfuron 15.0% WG needs to be thoroughly mixed with water before adding any other material.
- 5. As the tank is filling, add tank mix partners (if desired); then add the necessary volume of spray adjuvants. Always add spray adjuvants last.
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If Nicosulfuron 56.2% + Metsulfuron 15.0% WG and a tank mix partner are to be applied in multiple loads, preslurry the Nicosulfuron 56.2% + Metsulfuron 15.0% WG in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the Nicosulfuron 56.2% + Metsulfuron 15.0% WG.

**DO NOT** use **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** with spray additives that reduce the pH of the spray solution to below 3.0.

#### **APPLICATION METHOD**

# **Ground Broadcast Application**

To obtain optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles. For flat-fan nozzles, use at least 10 GPA for broadcast applications.

For flood nozzles on 30" spacings, use at least 10 gals. per acre (GPA), flood nozzles no larger than TK10 (or equivalent), and a pressure of at least 30 lbs. per square inch (PSI). For 40" nozzle spacings, use at least 13 GPA; for 60" spacings, use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

With "Raindrop RA" nozzles, use at least 30 GPA and ensure that nozzle spray patterns overlap 100%.

Use 50-mesh screens or larger.

# **Ground Broadcast Application - Buffer Restriction**

When applying a broadcast application by ground, maintain a 50-foot buffer between the point of direct application and the closest downwind edge of non-target aquatic and terrestrial areas.

#### **Ground Spot Application**

Spot applications may be made using equipment including backpack, ATV, or hand sprayers. Thorough coverage of foliage and stems is necessary to optimize results. Use an adjustable cone jet nozzle with an orifice size of X6 - X12 or equivalent. The application volume required will vary with the height and density of the weeds or brush and the application equipment used.

# **Aerial Application**

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage. Use a minimum of 2 GPA. When applying **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** by air in areas adjacent to sensitive crops, use solid

stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields. See the **MANDATORY SPRAY DRIFT MANAGEMENT** section of this label. Aerial application is not permitted in New York state.

# **Aerial Application - Buffer Restriction**

When applying by air, maintain a 100-foot buffer between the point of direct application and the closest downwind edge of non-target aquatic and terrestrial areas.

# **SPRAY EQUIPMENT**

For specific application equipment, refer to the manufacturer's specifications for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when the crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping to avoid crop injury. **DO NOT** make applications using equipment and/or spray volumes or under weather conditions that might cause spray to drift onto non-target sites. For additional information on spray drift, refer to the **MANDATORY SPRAY DRIFT MANAGEMENT** section of the label.

Continuous agitation is required to keep Nicosulfuron 56.2% + Metsulfuron 15.0% WG in suspension.

# BEFORE SPRAYING Nicosulfuron 56.2% + Metsulfuron 15.0% WG

Spray equipment must be clean before **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined in **After Spraying Nicosulfuron 56.2% + Metsulfuron 15.0% WG** section of this label.

### AT THE END OF THE DAY

When multiple loads of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** are applied, it is advised that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

# After Spraying Nicosulfuron 56.2% + Metsulfuron 15.0% WG and Before Spraying Crops Other Than Bermudagrass

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** as follows:

- 1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
- 2. Fill the tank with clean water and 1 gal. of household ammonia\* (contains 3% active) for every 100 gals. of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
- 3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
- 4. Repeat step 2.
- 5. Rinse the tank, boom, and hoses with clean water.
- 6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) listed on this label. **DO NOT** exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.
  - \*Equivalent amounts of an alternate-strength ammonia solution or a cleaner which dissolves and removes sulfonylurea herbicide residues can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions.

#### Notes

- 1. **Attention DO NOT** use chlorine bleach with ammonia, as dangerous gases will form. **DO NOT** clean equipment in an enclosed area.
- 2. Steam-cleaning aerial spray tanks is advised prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
- 3. When **Nicosulfuron 56.2% + Metsulfuron 15.0% WG** is tank mixed with other pesticides, all required cleanout procedures must be examined and the most rigorous procedure must be followed.
- 4. İn addition to this cleanout procedure, all preclean out guidelines on subsequently applied products must be followed as per the individual labels.
- 5. Where routine spraying practices include shared equipment frequently being switched between applications of Nicosulfuron 56.2% + Metsulfuron 15.0% WG and applications of other pesticides to Nicosulfuron 56.2% + Metsulfuron 15.0% WG sensitive crops during the same spray season, it is advised that a sprayer be dedicated to Nicosulfuron 56.2% + Metsulfuron 15.0% WG to further reduce the chance of crop injury.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

# **DRIFT CONTROL ADDITIVIES**

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read, and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

# STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage, disposal, or cleaning of equipment.

# **Pesticide Storage**

Store product in original container only. **DO NOT** contaminate water, other pesticides, fertilizer, food, or feed in storage.

# **Pesticide Disposal**

**DO NOT** contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Container Handling

[[Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):] Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by State and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.]

**[[Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds):]** Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.]

[[Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled, or Turned Upside Down):] Nonrefillable container. DO NOT reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration, and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour, or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.]

[[Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC), or Fiber Drums with Liners:] Nonrefillable container. DO NOT reuse or refill this container. Completely empty paper or plastic bag, fiber sack, or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack, or fiber drum and liner in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.]

**[[Outer Pouches of Water-Soluble Packets (WSP):]** Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.]

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

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[LABEL HISTORY]
[(Not included in final printed labeling)]

File Name	Version Mark	Comment
083100-000XX.20230404.DRAFT	040423	Section 3 Draft Label
083100-000TU.20240319.DRAFT	031924	(e) Label Revisions