

# OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

April 29, 2024

Blake Cowen Product Registration Manager, NA Albaugh, LLC 1525 NE 36<sup>th</sup> Street Ankeny, IA 50021

Subject: Notification per PRN 98-10 – Marketing changes, revise hotline, booklet statement and Chemtrec statement Product Name: Primero Agricultural Herbicide EPA Registration Number: 83100-8 Application Date: 2/13/2023 Case Number: 479135

Dear Blake Cowen:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "NOTIFICATION" and placed in our records.

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 (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.

Page 2 of 2 EPA Reg. No. 83100-8 Case No. 479135

If you have any questions, please contact Marc Sheahin at 202-566-2896 or at <u>sheahin.marc@epa.gov</u>.

Sincerely,

Nare S

Marc Sheahin, Biologist Fungicide & Herbicide Branch, Registration Division, Office of Pesticide Programs, OCSPP, EPA

83100 8 EPA Approved 03Jun2019 Primero Agricultural Herbicide	Rotam Agrochemical Co. Ltd. Master Label – SU Interim Decision 2017		
	NICOSULFURON GROUP	2	HERBICIDE

# **PRIMERO** Agricultural Herbicide

Water Dispersible Granule For use on Corn

Active Ingredient:	By Weight
Nicosulfuron* 2-[[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]	
aminosulfonyl]-N,N-dimethyl-3-pyridinecarboxamide	
Other Ingredients:	<u>25.0%</u>
TOTAL:	
Contains 75% Technical Active ingredient by weight.	
*CASRN: 111991-09-4	

# KEEP OUT OF THE REACH OF CHILDREN CAUTION/PRECAUCION

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

<b>FIRST AID</b>		
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>	
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.	
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
IF ON SKIN OR	Take off contaminated clothing.	
CLOTHING:	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>	
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
<b>IF SWALLOWED:</b> • Call a poison control center or doctor immediately for treatment advice.		
<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>		
<ul> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>		
<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>		
Note to Physician: No specific antidote. Treat symptomatically. For Emergency Medical treatment call your		
local poison control center. Have the product container or label with you when calling a poison control		
center or doctor, or going for treatment. For non-emergency exposure information on this product, call 1-		
<u>888-347-6732 (7 d</u>	ays/week, 24-hr). For medical emergencies, dial 911.	
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[See [inside] booklet for [additional] [complete] [First Aid,] [Precautionary Statements,] [Directions For Use,] [Storage and Disposal,] [and] [Conditions of Sale and Warranty].]See additional Precautionary Statements and Directions For Use inside booklet.

NET CONTENTS: \_\_\_\_\_

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

EPA Reg. No.: 83100-8

EPA EST. No.: 069821-CHN-003

# NOTIFICATION

83100-8

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

4/29/2024

Page **1** of **17** 

83100 8 EPA Approved 03Jun2019 Primero Agricultural Herbicide Rotam Agrochemical Co. Ltd. Master Label SU Interim Decision 2017

#### Manufactured by:

Albaugh, LLC <u>1525 NE 36th Street</u> <u>Ankeny, IA 50021</u><del>Rotam Agrochemical Company Limited</del> <del>26/F E Trade Plaza</del> <del>24 Lee Chung Street</del> <del>Chaiwan, Hong Kong</del>

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Causes moderate eye irritation. Harmful if absorbed through skin. 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.

# Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, all  $\geq$  14 mils
- Shoes plus socks

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.

# USER SAFETY RECOMMENDATIONS

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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 high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

#### Groundwater Advisory

Nicosulfuron 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 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 nicosulfuron 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

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

# 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.

## Non-Target Organism Advisory

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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. Protect the forage 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.

PRIMERO Agricultural Herbicide may be used only in accordance with directions on this label. To the extent consistent with applicable law ROTAM AGROCHEMICAL COMPANY LTD.ALBAUGH, LLC will not be responsible for losses or damage resulting from use of this product in any manner not specifically in the directions for use by ALBAUGH, LLCROTANA COMPANY LTD.

# 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, such as plants, soil, or water, is:

- Coveralls ٠
- Chemical-resistant gloves such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, all ≥ 14 mils • • Shoes plus socks

#### PRODUCT INFORMATION

PRIMERO Agricultural Herbicide is a water dispersible granule used at a rate 1/3 ounces per acre (0.0155 lb. a.i. nicosulfuron/acre) - 1 1/3 ounces per acre (0.0623 lb. a.i. nicosulfuron/acre) for selective post-emergence grass weed control in field corn grown for seed or grain, popcorn, and sweet corn.

#### When to Apply

PRIMERO Agricultural Herbicide may be used on field corn, high lysine, waxy, white or other food grade corn hybrids. PRIMERO Agricultural Herbicide may be broadcast to corn up to 20" tall (free standing) or that is exhibiting up to and including 6 leaf collars (V6), whichever is more restrictive.

While PRIMERO Agricultural Herbicide has a wide application window, research has shown best results are obtained when applications are made early post-emergence when corn and weeds are small. Target applications to corn that is less than 12" tall for best overall performance.

## **Application Timing**

Apply PRIMERO Agricultural Herbicide when grasses are young and actively growing, but before they exceed the sizes indicated in Table 1. Treat heavy infestations of weeds before they become too competitive with the crop, especially where soil moisture and/or fertility are limited. PRIMERO Agricultural Herbicide provides weed control via foliar absorption. PRIMERO Agricultural Herbicide only controls those weeds that have emerged. For later-emerging weeds, a second application or a timely cultivation is required. Applications made to weeds larger than the size indicated on this label or to weeds under stress may result in unsatisfactory control (See Late or Rescue Applications below).

#### Late or Rescue Applications

PRIMERO Agricultural Herbicide may be applied to field corn as a rescue treatment for the control of escaped grasses, or as a directed post-emergence application on corn that is taller than 2" or which has more than 6 collars (whichever occurs first).

For corn 20" to 36" tall, apply PRIMERO Agricultural Herbicide with drop nozzles only and avoid spraying into the whorl of corn stalks. Applications made to weeds larger than those listed on this label may vary from complete control to suppression. Level of control will depend on the weed species, stage of growth, and environmental conditions.

Due to the unplanned nature of rescue applications, choices must be made between the risks that arise from applications made beyond the proper time for PRIMERO Agricultural Herbicide use, and the effects of season long grass competition and/or harvest complications. These choices must balance risks from improperly timed PRIMERO Agricultural Herbicide use that include, but are not limited to:

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- Yield loss due to competition: Research indicates competition from foxtail exceeding 4 inches in height may reduce corn yields. Applications to foxtail and other annual grasses that exceed the sizes stated on the label increases the risk of yield losses due to prolonged competition with the crop even though control may be acceptable.
- Incomplete control of grasses beyond labeled size: Applications to grasses that exceed the labeled sizes can result in reduced control. This incomplete control may reduce corn yield.
- Incomplete grass control due to herbicide stress: Grasses under stress from previous herbicide applications may not be actively growing and susceptible to PRIMERO Agricultural Herbicide. This stress may reduce grass control in "rescue" situations.
- Ear malformation: Applications of PRIMERO Agricultural Herbicide on corn that has 7 to 10 collars (V7 to V10)
  increases the potential for ear malformation (pinching). This risk may be greatly reduced, but not eliminated, by
  using drop nozzles property adjusted so as to not apply PRIMERO Agricultural Herbicide into the corn whorl.

#### Rate

Optimum control of the weeds listed can be achieved with 2/3 ounces (0.0309 lb. a.i. nicosulfuron/acre) of PRIMERO Agricultural Herbicide. Weeds that exceed the listed weed sizes by up to 50% may be partially controlled with rates between 2/3 ounces per acre (0.0309 lb. a.i. nicosulfuron/acre) and 1 1/3 ounces (0.0623 lb. a.i. nicosulfuron/acre) of PRIMERO Agricultural Herbicide per acre. PRIMERO Agricultural Herbicide may be applied at 1/3 ounces per acre (0.0155 lb. a.i. nicosulfuron/acre) - 2/3 ounces (0.0309 lb. a.i. nicosulfuron/acre) for limited control of certain small grass weeds. (See **Table 2**, under **ADDITIONAL DIRECTIONS** for details.)

As weeds mature, their sensitivity to PRIMERO Agricultural Herbicide decreases.

As grassy weeds become mature (more than 3 tillers), they may not reach the size listed below, due to drought or other environmental factors. Grassy weeds that are maturing rapidly must be treated before they reach the stages listed below.

#### PRECAUTIONS

Injury to or loss of desirable vegetation may result from failure to observe the following:

- Prevent drift of spray to desirable plants.
- Thoroughly clean application equipment immediately after use. (See the SPRAYER CLEANUP section of this label for instructions.)

#### RESTRICTIONS

- Do not apply PRIMERO Agricultural Herbicide or drain or flush application equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or other high-maintenance, fine turfgrass areas.
- Do not contaminate any body of water.
- Do not graze or feed forage, hay, or straw from treated areas to livestock within 30 days of PRIMERO Agricultural Herbicide application.
- Do not apply more than 1 1/3 ounces per year (0.0623 lb. a.i. nicosulfuron/acre) of PRIMERO Agricultural Herbicide in a single application.
- Do not apply more than 1 1/3 ounces per year (0.0623 lb. a.i. nicosulfuron/acre) of PRIMERO Agricultural Herbicide.
- Do not make more than two applications of PRIMERO Agricultural Herbicide per year when using reduced application rates.
- The combined dosage of sequential applications cannot exceed 1 1/3 ounces per acre (0.0623 lb. a.i. nicosulfuron/acre) of PRIMERO Agricultural Herbicide per year.
- Do not apply to corn that is taller than 36" or that exhibits 10 or more collars (V10), whichever is most restrictive.
- Retreatment Interval: 14 days

When applied as directed, PRIMERO Agricultural Herbicide will control the weeds listed in Table 1.

# Table 1. Weeds controlled with 2/3 ounces (0.0309 lb. a.i. nicosulfuron/acre) PRIMERO Agricultural Herbicide.

Grasses	Maximum Height or Diameter (inches)
Barnyardgrass	4
Broadleaf signalgrass	2
Foxtails (bristly, giant, green, yellow)	4
Itchgrass	6
Johnsongrass	
Seedling	12
rhizome	18
Panicum (Texas, browntop)	3

Page **4** of **17** 

83100 8 EPA Approved 03Jun2019	Rotam Agrochemical Co. Ltd.		
Primero Agricultural Herbicide	Master Label SU Interim Decision 2017		
fall	4		
Quackgrass*	10		
Ryegrass (Italian, perennial)	6		
Sandbur (field, longspine)*	3		
Shattercane	12		
Sorghum almum	12		
Timothy	6		
Volunteer cereals (barley, oats, rye, triticale, wheat)	6**		
Wild oats	4		
Wild proso millet	4		
Wirestem muhly*	8		
Witchgrass	6		
Woolly cupgrass*	4		

\*Requires the use of COC plus ammonium nitrogen fertilizer. Cultivation or re-treatment may be required. (See For Additional Control of Later Emerging Grasses.)

\*\*10 inches in the states of WA, OR, ID, and MT, where the use of MSO adjuvants are preferred. (See SPRAY ADJUVANTS.)

Maximum Height or Diameter (inches)
3
6
4
3
3
2
4
4
4

\*Suppression

# MANDATORY SPRAY DRIFT

# 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 1/2 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 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.
- 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.

#### 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 – General Techniques

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows
  produce larger droplets.
- Pressure Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower
  spray angles produce larger droplets. Consider using low drift nozzles.

#### 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 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.

#### 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.

# Popcorn, Field Corn Grown for Seed and Sweet Corn

PRIMERO Agricultural Herbicide may be broadcast or applied with drop nozzles to popcorn or field corn grown for seed that is less than 20" tall (free-standing) or that exhibits up to and including 5 leaf collars (V5), whichever is most restrictive.

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Many seed companies have tested seed corn inbreds or yellow popcorn hybrids for sensitivity to PRIMERO Agricultural Herbicide and have reported excellent safety.

#### Restrictions

- Do not apply to corn that is taller than 20" or that exhibits more than 5 leaf collars (V5), whichever is more restrictive.
- Do not apply PRIMERO Agricultural Herbicide to any white popcorn inbred, or white popcorn hybrid unless specifically approved by the seed company. This includes "White Dynamite" popcorn.
- Do not apply to sweet corn taller than 18 inches or those which exhibit 6 or more leaf collars (V6), and make only
  one application of PRIMERO Agricultural Herbicide per year.

PRIMERO Agricultural Herbicide may be applied to certain sweet corn hybrids grown for fresh markets or under contract for processing. Applications of PRIMERO Agricultural Herbicide may be applied broadcast or with drop nozzles (postdirected) on sweet corn up to 12 inches tall or up to and including 5 leaf collars (V5). For sweet corn 12 - 18 inches tall, apply only with drop nozzles. Sweet corn hybrid sensitivity to PRIMERO Agricultural Herbicide is highly variable, and not all hybrids have been tested for crop sensitivity. Contact your Rotam Albaugh Sales Representative for information on local sweet corn hybrids that have been evaluated with PRIMERO Agricultural Herbicide.

Not all seed corn inbreds, popcorn or sweet corn hybrids have been tested, nor does <u>ALBAUGH, LLCROTAM</u> <u>AGROCHEMICAL COMPANY LTD</u>, have access to all seed company data. Consequently, to the extent consistent with applicable law <u>ALBAUGH, LLC ROTAM AGROCHEMICAL COMPANY LTD</u> is not responsible for any crop injury arising from the use of PRIMERO Agricultural Herbicide on field corn grown for seed, popcorn or sweet corn. When tank mixing, check the tank mix partner label for instructions for use.

(See SOIL INSECTICIDE INTERACTION INFORMATION regarding the use of PRIMERO Agricultural Herbicide on popcorn, sweet corn, or field corn grown for seed that has been previously treated with a soil insecticide.)

#### SPRAY ADJUVANTS

Applications of PRIMERO Agricultural Herbicide must include either a crop oil concentrate or a nonionic surfactant. In addition, an ammonium nitrogen fertilizer must be used unless specifically prohibited by tank mix partner labeling. Crop oil concentrate plus ammonium nitrogen fertilizer is the preferred adjuvant system for activity on difficult to control species including woolly cupgrass, quackgrass, sandbur and wirestem muhly. Consult your local Rotam Albaugh Sales Representative prior to using other adjuvant systems. If another herbicide is tank mixed with PRIMERO Agricultural Herbicide, select adjuvants authorized for use with both products. Products must contain only EPA exempt ingredients (40 CFR 1001).

# Crop Oil Concentrate (COC) - Petroleum or Modified Seed Oil (MSO)

- Apply at 1 % v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- MSO adjuvants may be used at 0.5% v/v (0.5 gallons per 100 gallons spray solution) if specifically noted on adjuvant
  product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

#### Nonionic Surfactant (NIS)

- 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.

#### Ammonium Nitrogen Fertilizer

- Use 2 quarts/acre of a high-quality urea ammonium nitrate (UAN), including 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 liquid nitrogen fertilizer as the total carrier solution.

#### Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO, and/or
  ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality. **Note:** not all adjuvant types have been tested with this product. Consult your local Extension Agent or your <u>AlbaughRotam</u> Representative if you have questions concerning use of a specific adjuvant product.

# MIXING INSTRUCTIONS

1

1. Fill the tank 1/4 to 1/3 full of water.

- 2. While agitating, add the required amount of PRIMERO Agricultural Herbicide.
- 3. Continue agitation until the PRIMERO Agricultural Herbicide is fully dispersed, at least 5 minutes.

Page 7 of 17

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- 4. Once the PRIMERO Agricultural Herbicide is fully dispersed, maintain agitation and continue filling tank with water. Thoroughly mix PRIMERO Agricultural Herbicide with water before adding any other material.
- 5. As the tank is filling, add the required spray adjuvants (crop oil concentrate, nonionic surfactant, or ammonium nitrogen fertilizer).
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply PRIMERO Agricultural Herbicide spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If PRIMERO Agricultural Herbicide and a tank mix partner are to be applied in multiple loads, pre-slurry the PRIMERO Agricultural Herbicide in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the PRIMERO Agricultural Herbicide.

#### WHEN TO APPLY - SEQUENTIAL APPLICATIONS FOLLOWING REDUCED RATES OF PREEMERGENCE HERBICIDES

PRIMERO Agricultural Herbicide may be used as a sequential application in a planned postemergence weed control program in corn following a reduced rate of a preemergence herbicide.

Apply a reduced rate of a preemergence grass herbicide prior to corn emergence and then follow with a postemergence application of PRIMERO Agricultural Herbicide. Apply products including s-metolachlor/metolachlor, atrazine, isoxaflutole, metribuzin, flufenacet, acetochlor, and dimethenamide-P at as low as 1/4 to 1/2 of the full labeled use rate and follow with a sequential postemergence application of PRIMERO Agricultural Herbicide. Refer to the preemergence grass herbicide label for use restrictions, application information, rotational crop guidelines, and follow any caution statements prior to applying PRIMERO Agricultural Herbicide.

DO NOT apply PRIMERO Agricultural Herbicide to corn that exhibits herbicide injury from previous applications made to the current or preceding crop.

## TANK MIX APPLICATIONS

#### For Additional Control of Broadleaf Weeds

PRIMERO Agricultural Herbicide may be tank mixed with many herbicides registered for postemergence application in corn for additional control of broadleaf weeds. See the tank mix partner label for weeds controlled, precautions, use restrictions, adjuvant and crop rotation information. The most restrictive language on either label shall apply.

In addition to the tank mixtures noted above, PRIMERO Agricultural Herbicide may be tank mixed with the rates of products listed below for improved control of many broadleaf weeds, including cocklebur, dandelion, Eastern black nightshade, lambsquarters, pigweeds, ragweeds, PA smartweed and velvetleaf. (See ADDITIONAL DIRECTIONS AND/OR DIRECTIONS FOR SPECIFIC WEED PROBLEMS below for additional information.)

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.

Product	Rate/A	
atrazine*	Refer to Label	
dicamba (e.g., any 4 lbs./gallon dicamba)	Refer to Label	
dicamba + atrazine *	Refer to Label	
mesotrione	Refer to Label	
diflufenzopyr-sodium + dicamba	Refer to Label	
prosulfuron + primisulfuron-methyl	Refer to Label	
dicamba + primisulfuron-methyl**	Refer to Label	

\*Make applications to emerged corn before the corn reaches 12" tall.

\*\*DO NOT apply to sweet corn, seed corn, or popcorn.

Rates listed are for the specific products noted in the table. If other brands or formulations are used, rates of active ingredients must be adjusted to correspond to the products indicated. Formulations of products other than those listed may not have been tested with PRIMERO Agricultural Herbicide. Check with the manufacturer for information on tank mix compatibility prior to using (See **TANK MIX COMPATIBILITY TESTING**). Crop oil concentrate plus ammonium nitrogen fertilizer is the preferred adjuvant for tank mixtures when using products at the low end of the rate range indicated in the table. The use of nonionic surfactant is permitted in place of crop oil concentrate for tank mixtures with Atrazine for rate specifications.)

DO NOT use MSO adjuvants when tank mixing PRIMERO Agricultural Herbicide with >1.5 oz. mesotrione.

# 83100 8 EPA Approved 03Jun2019

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# ADDITIONAL DIRECTIONS AND/OR DIRECTIONS FOR SPECIFIC WEED PROBLEMS

Reduced Rates of PRIMERO Agricultural Herbicide may be applied at 1/3 ounces (0.0155 lb. a.i. nicosulfuron/acre) - 2/3 ounces (0.0309 lb. a.i. nicosulfuron/acre) for control of the small grass weeds noted in the table below. Always use a crop oil concentrate plus ammonium nitrogen fertilizer when applying reduced rates of PRIMERO Agricultural Herbicide.

#### Table 2. Weeds controlled with reduced rates of PRIMERO Agricultural Herbicide.

	Maximum Height or Diameter (inches) Rate PRIMERO Agricultural Herbio		
Grasses	1/3 oz. (0.0155 lb. a.i. nicosulfuron/acre)	1/2 oz. (0.0234 lb. a.i. nicosulfuron/acre)	2/3 oz. (0.0309 lb. a.i. nicosulfuron/acre)
Barnyardgrass	2	3	4
Foxtails (bristly, giant, green)	2	3	4
yellow	-	2	4
Itchgrass	2	4	6
Johnsongrass, seedling	-	8	12
rhizome	-	8	18
Panicum, (Texas, browntop)	1	2	3
fall	1	2	4
Sandbur (field, longspine)	-	1	3
Shattercane	3	6	12
Sorghum almum	3	6	12
Timothy	2	4	6
Volunteer cereals	-	2	6
Wild oats	2	3	4
Wild proso millet	-	2	4
Witchgrass	2	4	6
Woolly cupgrass	-	-	4

# **Tank Mixtures with Atrazine**

PRIMERO Agricultural Herbicide may be tank mixed with atrazine\* for control of many broadleaf weeds, including:

Broadleaf Weeds	Maximum Height or Diameter (inches)
Sicklepod	2
Prickly sida	2
Wild Radish	12
Cutleaf evening primrose	6
Florida pusley	2

\*Refer to tank mix label for rates of atrazine. Products containing atrazine are Restricted Use Products.

PRIMERO Agricultural Herbicide + atrazine tank mixtures may result in reduced control of grasses (antagonism) if applied to under low moisture stress or to grasses or the to labeled height. Before PRIMERO Agricultural Herbicide + atrazine tank mixtures, refer to the label for information regarding the maximum amount of atrazine that of be applied in a year.

#### **Tank Mixtures with Mesotrione**

PRIMERO Agricultural Herbicide may be tank mixed with mesotrione\* herbicide for weed control as indicated in the table below:

	Maximum Height or Diameter (inches)										
Species	M	esotrione Alo	Meso	otrione + Atrazine**1							
Cocklebur	4	4	4	10	10	10					
Dandelion	10	10	10	10	10	10					
Jimsonweed	4	4	4	4	10	10					
Kochia	-	-	-	4	4	4					
Lambsquarters, common	4	4	4	10	10	10					
Morningglory, ivyleaf	4	4	4	4	4	4					
Mustard, wild	-	-	4	-	-	10					
Nightshade (black, eastern	4	4	4	10	10	10					
black)											
Pigweed, palmer	-	-	4	4	4	4					
Pigweed (redroot, smooth)	4	4	4	10	10	10					

Page **9** of **17** 

33100 8 EPA Approved 03Jun2019 Rotam Agrochemical Co. Ltd.											
Primero Agricultural Herbicide Master Label SU Interim Decision 2017											
Ragweed, common         -         -         4         10         1											
Ragweed, giant	-	3	4	4	10	10					
Smartweed, ladysthumb	-	4	4	4	10	10					
Smartweed, Pennsylvania	4	4	4	4	10	10					
Sunflower, common	4	4	4	4	4	10					
Velvetleaf	4	4	4	10	10	10					
Waterhemp (tall, common)	-	4	4	4	10	10					

\*Refer to tank mix label for rates of mesotrione.

\*\*Plus 0.25 to 0.75 pounds a.i. atrazine per acre may provide better control when weeds are at maximum height.

<sup>1</sup>Refer to product label for specific use rate information.

For improved grass and broadleaf weed control, PRIMERO Agricultural Herbicide tank mixtures with mesotrione (with or without atrazine) may be applied with 0.5 % v/v MSO spray adjuvant. DO NOT use MSO adjuvants when tank mixing PRIMERO Agricultural with mesotrione. Use a petroleum-based crop oil concentration + an ammonium nitrogen fertilizer.

# Tank Mixtures with Topramezone plus Atrazine

PRIMERO Agricultural Herbicide may be tank mixed with topramezone plus atrazine at the rate listed on the tank mix label for weed control as indicated in the table below:

#### Maximum Weed Height (in inches)

	PRIMERO Agricultural Herbicide + Atrazine +							
Species	Topramezone	Topramezone **						
Amaranth, Palmer	4"*	6"						
Cocklebur, common	5″*	8″						
Jimsonweed	4"*	6"						
Kochia	4"*	6″						
Lambsquarters, common	4"	6″						
Morningglory, annual	4"	4″						
Mustard, wild	4"*	6"						
Nightshade (black, Eastern black)	4"*	6"						
Pigweed (redroot, smooth)	4"	6"						
Ragweed, common	4"	6"						
Ragweed, giant	5″	8″						
Smartweed, Pennsylvania	2"*	3″						
Smartweed, Ladysthumb	2"*	3″						
Sunflower, common	5″*	8″						
Thistle, Canada	4″S*	6"S						
Velvetleaf	5″	8″						
Waterhemp (tall, common)	4"	6"						

S = Suppression

\*Refer to the topramezone label for additional information regarding tank mixtures, adjuvants and rotational crops. Current research supports applications at these use rates only within the following geographies: Illinois, north of I-80; Iowa, north of I-80 (excluding the area that is both north of U.S. Hwy. 20 and west of U.S. Hwy. 71); Michigan, entire state; Minnesota, east of U.S. Hwy. 71; Nebraska, north of Hwy. 92; Wisconsin, entire state.

\*\*Refer to the topramezone label for specific rotational crop information.

## Tank Mixtures with Atrazine + S-Metolachlor + Mesotrione

PRIMERO Agricultural Herbicide may be tank mixed with Atrazine + S-Metolachlor + Mesotrione at the tank mix label rate for weed control as indicated in the table below:

Species	Atrazine + S-Metolachlor + Mesotrione <sup>1</sup>	Atrazine + S-Metolachlor + Mesotrione <sup>1</sup>
Amaranth, Palmer	4"	4"
Cocklebur, common	10"	10"
Dandelion	10"	10"
Jimsonweed	10"	10"
Kochia	4"	4"
Lambsquarters, common	10"	10"
Morningglory, annual	4"	4"
Mustard, wild	4"	10"
Nightshade (black, Eastern black)	10"	10"
Pigweed (redroot, smooth)	10"	10"
Ragweed, common	10"	10"

Page **10** of **17** 

83100 8 EPA Approved 03Jun2019		Rotam Agrochemical Co. Ltd.
Primero Agricultural Herbicide		Master Label SU Interim Decision 2017
Ragweed, giant	10"	10"
Smartweed, Pennsylvania	10"	10"
Smartweed, Ladysthumb	10"	10"
Sunflower, common	4"	4″
Velvetleaf	10"	10"
Waterhemp (tall, common)	10"	10"

<sup>1</sup>Refer to product label for specific use rate information.

#### For Additional Control of Later Emerging Grasses

PRIMERO Agricultural Herbicide may be tank mixed with full or reduced rates of pre-emergence grass herbicides labeled for early post-emergence application to field corn (including s-metolachlor/metolachlor, atrazine, pendimethalim, acetochlor, or dimethenamide-P) for residual activity on later emerging flushes of grass. Application must be made before the grass emerges and before other grass weeds on the PRIMERO Agricultural Herbicide label exceed their labeled sizes.

The use of nonionic surfactant is advised in place of crop oil concentrate for tank mixtures with pre-emergence grass herbicides where applications are made early post-emergence to small grass weeds. (See **SPRAY ADJUVANTS** for adjuvant rate directions.)

When tank mixing PRIMERO Agricultural Herbicide with EC formulated pre-emergence grass herbicides including smetolachlor/metolachlor or pendimethalim, do not add mesotrione to the tank mixture. When other formulations of preemergence grass herbicides are tank mixed with PRIMERO Agricultural Herbicide + mesotrione (including smetolachlor/metolachlor or atrazine), limit pre-emergence herbicide rates to 2/3 times full rates, always add nonionic surfactant in place of crop oil concentrate, and limit broadleaf weed sizes to less than or equal to 4" tall.

When tank mixing PRIMERO Agricultural Herbicide with Atrazine + S-Metolachlor + Mesotrione, limit Atrazine + S-Metolachlor + Mesotrione rates the rates listed on the tank mix label, always add nonionic surfactant in place of crop oil concentrate, omit adjuvants containing ammonium nitrogen fertilizer, and limit applications to corn up to 5" tall. Tank mixes of PRIMERO Agricultural Herbicide and pre-emergence grass herbicides must be broadcast applied post-emergence to field corn before the crop exceeds the heights listed on the pre-emergence grass herbicide label. (Refer to **WHEN TO APPLY POSTEMERGENCE** and the pre-emergence grass herbicide label for complete post-emergence application information, rates, and restrictions.)

#### **Tank Mixtures with Insecticides**

PRIMERO Agricultural Herbicide may be tank mixed with pyrethroid or carbamate insecticides including esfenvalerate or methomyl. See **SOIL INSECTICIDE INTERACTION** section for information on use of PRIMERO Agricultural Herbicide following soil insecticides application.

#### **Other Tank Mixtures**

Other than the exceptions noted, and in addition to the tank mix partners and rates indicated above, PRIMERO Agricultural Herbicide may be tank mixed or followed with sequential applications of other products registered for use in field corn. Applications of full or reduced rates of other products registered for use in corn provided:

- The tank mix product is labeled for the same timing, method of application, adjuvants, and use restrictions as PRIMERO Agricultural Herbicide.
- The tank mixture is not specifically prohibited on the label of the tank mix product.
- The tank mix combination is compatible as determined by a "jar test" described in the TANK MIX COMPATIBILITY TESTING section below.

Weed control and crop response with tank mixtures not specifically advised in this label are the responsibility of the user and manufacturer of the tank mix product.

#### TANK MIXING PRECAUTIONS:

A corn plant's predisposition to develop fused tissue emerging from the whorl (rattail) after the V11 stage may increase when a product containing dicamba (i.e., dicamba, atrazine) is applied to small corn under early stressful conditions. Be aware of this when applying tank mixes with dicamba to small corn (V3 stage or smaller) under stressful conditions. (See **ENVIRONMENTAL CONDITIONS** for a description of these stressful conditions.)

To avoid crop injury or antagonism, apply the products indicated below at least seven days before or three days after the application of PRIMERO Agricultural Herbicide.

Page 11 of 17

Rotam Agrochemical Co. Ltd. Master Label SU Interim Decision 2017

#### TANK MIXING RESTRICTIONS

- Do not tank mix PRIMERO Agricultural Herbicide with sodium bentazon and atrazine or severe crop injury may occur.
- Do not tank mix PRIMERO Agricultural Herbicide with 2,4-D containing products as severe grass control antagonism may occur.
- Do not tank mix PRIMERO Agricultural Herbicide with foliar-applied organophosphate insecticides including chlorpyrifos, malathion, parathion, etc., as severe crop injury may occur.
- Do not exceed labeled application rates.
- Do not tank mix PRIMERO Agricultural Herbicide with other products that contain the same active ingredients as PRIMERO Agricultural Herbicide (nicosulfuron) unless the label of either tank mix partner specifies the maximum rate that may be used.

## TANK MIX COMPATIBILITY TESTING

Perform a jar test prior to tank mixing to ensure compatibility of PRIMERO Agricultural Herbicide and other pesticides. Use a clear glass quart jar lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination must not be used.

#### SEQUENTIAL PRIMERO AGRICULTURAL HERBICIDE APPLICATIONS

Annual grasses may have more than one flush of emerging seedlings. Also, regrowth of treated annual grasses may occur due to adverse environmental conditions following application. Perennial grasses may regrow from underground stems or roots, depending upon environmental conditions. To control grasses under these conditions, a sequential application of PRIMERO Agricultural Herbicide may be necessary. The combined dosage of the sequential applications cannot exceed 1 1/3 ounces per acre (0.0623 lb. a.i. nicosulfuron/acre) of PRIMERO Agricultural Herbicide.

# CULTIVATION

A timely cultivation may be necessary to control suppressed weeds, or weeds that emerge after an application of PRIMERO Agricultural Herbicide. Optimum timing for cultivation is 7-14 days after PRIMERO Agricultural Herbicide application or upon seeing the establishment of new weeds.

#### ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

PRIMERO Agricultural Herbicide provides best results when applied to young, actively growing weeds. Applications made during warm, moist conditions (70°F or more) and adequate soil moisture both before and after application maximizes performance. The degree and duration of control depend on spray coverage, weed spectrum, weed size, growing conditions before and after treatment, soil moisture, and adjuvant selection.

#### PRIMERO Agricultural Herbicide is rainfast in 4 hours.

Treating weeds that exceed maximum label height or that are under stress may result in incomplete control. Poor weed control or crop injury may result from applications made to plants under stress from:

- abnormally hot or cold weather;
- environmental conditions including drought, water-saturated soils, hail damage, or frost;
- disease, insect, or nematode injury;
- prior herbicide, or carryover from a previous year's herbicide application.

Severe stress from conditions preceding or immediately following application may also result in crop injury or root weed control. Stress affects all weeds, but especially weeds including woolly cupgrass, green and yellow foxtail, and wild proso millet.

If the corn or grass weeds are under stress, delay application until stress passes and both weeds and corn resume active growth.

PRIMERO Agricultural Herbicide rapidly inhibits the growth of susceptible weeds, reducing weed competition within as little as 6 hours after application. Susceptible plants are controlled in 7 - 21 days.

# SOIL INSECTICIDE INTERACTION INFORMATION

Before using PRIMERO Agricultural Herbicide, ensure that it is compatible with any insecticides previously applied to the corn crop.

PRIMERO Agricultural Herbicide may interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application method, and soil type. PRIMERO Agricultural Herbicide may

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be applied to corn previously treated with chlorethoxyfos, cyfluthrin, phostebupirim, or tefluthrin insecticides or nonorganophosphate (OP) soil insecticides regardless of soil type.

- DO NOT APPLY PRIMERO Agricultural Herbicide to corn previously treated with terbufos in-furrow or over the row at cultivation.
- Applications of PRIMERO Agricultural Herbicide to corn previously treated with terbufos, chlorpyrifos, or phorate may cause unacceptable crop injury, especially on soils of less than 4% organic matter.

#### **CROP ROTATION**

Rotational crops vary in their response to low concentrations of PRIMERO Agricultural Herbicide remaining in the soil. PRIMERO Agricultural Herbicide dissipates rapidly in warm, acidic, microbiologically active soils.

The amount of PRIMERO Agricultural Herbicide which may be present in the soil depends on application rate, soil pH and organic matter content, elapsed time since application, crop production practices, and environmental factors.

Injury to rotational crops may occur in high-pH, cold soils if dry weather prevails between application and rotational crop planting.

Soil pH must be determined by laboratory analysis using the 1:1 soil:water suspension method on representative soil samples taken at 0 - 4" depth. Soil pH varies within fields; therefore, re-cropping needs to be based on the highest soil pH within each field. Consult local extension publications for specified soil sampling procedures.

The following rotational intervals must be observed when using PRIMERO Agricultural Herbicide at a maximum of 1 1/3 ounces (0.0623 lb. a.i. nicosulfuron/acre):

# PRIMERO AGRICULTURAL HERBICIDE ROTATIONAL CROP GUIDELINE -1

#### No soil pH Restrictions

Сгор	Rotational Interval in Months
Corn (field, seed)	Anytime
Corn (pop, sweet)*	10
Soybeans	0.5 (15 days)
Cereals, spring (barley, oats, rye, wheat)	8
Cereals, winter (barley, oats, rye, wheat)	4
Cotton	10
Dry Beans, Peas, Snap Beans	10
Alfalfa**	12
Red Clover**	12
Other Crops	See Rotational Crop Guidelines 2 and 3

\*Except the sweet corn varieties "Merit", "Carnival", and "Sweet Success", for which the minimum time interval is 15 months.

\*\*Except for the state of Kansas east of Highway 75, for Minnesota east and south of the Red River Valley and for the states east of the line formed by the western borders of Iowa, Missouri, Arkansas, and Louisiana, where the minimum time interval is 10 months.

#### PRIMERO AGRICULTURAL HERBICIDE ROTATIONAL CROP GUIDELINE - 2 With Soil pH <7.5 Restrictions

Gron	Rotational Interval in Months				
Стор	pH 7.5	pH >7.5			
Sorghum	10	18*			
Sunflowers	11**	18			
All other groups not listed in rotational Cuidalings 1 or 2	Coo Dotation	al Cuidalina 2			

All other crops not listed in rotational Guidelines 1 or 2 See Rotational Guideline 3
\*Except in Texas and Oklahoma east of Highway 281, where the rotational interval is 10 months, regardless of pH.
\*\*Precipitation following application must exceed 14" prior to planting sunflowers.

#### PRIMERO AGRICULTURAL HERBICIDE ROTATIONAL CROP GUIDELINE - 3

# With Soil pH <6.5 Restrictions

Gran	Rotational Interval in Months					
Стор	pH 6.5	pH >6.5				
Sugarbeets*, potatoes**	10	18***				
All other crops not listed in Rotational Guidelines 1 or 2	10	18				

\*Except on irrigated sites in Colorado, Wyoming, Nebraska, Texas, Michigan, and Ohio, where precipitation following application must exceed 25" prior to planting beets, where the interval is 10 months on soils with pH <7.5. Sites in Minnesota east and south of the Red River Valley may follow these guidelines provided maximum rates of PRIMERO Agricultural Herbicide do not exceed 0.67 oz.

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- \*\*Irrigated potatoes following irrigated corn treated in the States of Washington, Oregon, Idaho, or Utah can be planted 10 months after using PRIMERO Agricultural Herbicide on sprinkler irrigated corn with no soil pH restrictions, providing the maximum use rate on corn does not exceed 1.0 ounce product per year. Corn treated with PRIMERO Agricultural Herbicide must be grown to maturity and receive a minimum of 18 inches of irrigation water before potatoes can be planted at this rotation interval. Injury to potatoes may occur if less than 18 inches of irrigation is used on the previous corn crop. PRIMERO Agricultural Herbicide may not be used in a tank mix or sequential application program with other ALS-inhibiting herbicides, including, prosulfuron or Primisulfuron-methyl.
- \*\*\*In North Dakota and northwest Minnesota, the cumulative precipitation in the 18 months following application must exceed 28" in order to rotate to sugarbeets or potatoes.

**ROTATIONAL CROP GUIDELINES** - 4 may be observed when using a single application of PRIMERO Agricultural Herbicide per year with a maximum use rate of 0.67 ounces (0.0309 lb. a.i. nicosulfuron/acre) product. Rotational intervals must be extended to 12 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

#### PRIMERO AGRICULTURAL HERBICIDE ROTATIONAL CROP GUIDELINES - 4 With 0.67 ounces (0.0309 lb. a.i. nicosulfuron/acre) maximum use rate

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Сгор	Rotational Interval in Months							
Alfalfa*								
Canola								
Flax**	10							
Potato	10							
Red clover								
Sunflower								

\*On sprinkler irrigated fields in Idaho, Utah, and Northern Nevada it is best to use deep fall tillage including plowing prior to planting alfalfa. Product degradation may be less on furrow irrigated soils and may result in some crop injury.

\*\*Rotational intervals must be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

# APPLICATION INFORMATION

Many crops are highly sensitive to PRIMERO Agricultural Herbicide. All direct or indirect contact (including spray drift) with crops other than field corn must be avoided (see also **MANDATORY SPRAY DRIFT**). For all application systems, use 50-mesh or larger strainer screens.

DO NOT apply PRIMERO Agricultural Herbicide through any type of irrigation system.

# GROUND APPLICATION

# **Broadcast Application**

- Use a minimum of 15 gallons of water per acre (15 GPA) for best performance. Use a minimum of 10 gallons of water per acre (GPA) for light, scattered stands of weeds.
- Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl. This is most likely to occur when a nozzle is positioned directly above the row.
- Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

# **Band Application**

For band applications, use proportionately less spray mixture, and carefully calibrate the band applicator to not exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle type (flat fans), orientation, distance of nozzles from the crop and weeds, spray volumes, calibration and spray pressure.

# AERIAL APPLICATION

In New York State and California aerial application is not permitted. Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at a minimum of 3 GPA.

# SPRAYER PREPARATION/CLEANUP

It is important that spray equipment is clean and free of previous pesticide deposits before using PRIMERO Agricultural Herbicide and then properly cleaned out following application. Clean all application equipment before applying PRIMERO Agricultural Herbicide. Follow the cleanup procedures specified on the label of the product previously sprayed. If no cleanup procedure is provided, use the procedure that follows. Immediately following applications of PRIMERO Agricultural Herbicide, thoroughly clean all mixing and spray equipment to avoid subsequent crop injury.

#### Note:

- When cleaning spray equipment before applying PRIMERO Agricultural Herbicide, read and follow label directions for proper rinsate disposal of the product previously sprayed.
- Steam cleaning of aerial spray tanks will help to dislodge any visible pesticide deposits.

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• When spraying or mixing equipment will be used over an extended period to apply multiple loads of PRIMERO Agricultural Herbicide, partially fill the tank with fresh water at the end of each day of spraying, flush the boom and hoses, and allow to sit overnight.

# **Cleanup Procedure**

1. Drain the tank and thoroughly hose down the interior surfaces. Flush the tank, hoses, and boom with clean water for a minimum of 5 minutes.

- 2.Partially fill the tank with clean water and add one gallon of household ammonia\* (containing 3% active) for every 100 gallons of water. Finish filling the tank with water, then flush the cleaning solution through the hoses, boom, and nozzles. Add more water to completely fill the tank and allow to agitate or recirculate for at least 15 minutes. Again, flush the hoses, boom, and nozzles with the cleaning solution, then drain the tank.
- 3. Repeat Step 2.
- 4. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.

5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom. \*Equivalent amounts of an alternate strength ammonia solution or a tank cleaner is also advised.

# WEED RESISTANCE MANAGEMENT

PRIMERO Agricultural Herbicide nicosulfuron and is classified as a Group 2 herbicide, Acetolactate Synthase (ALS) or Acetohydroxy Acid Synthase (AHAS) inhibitor.

Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to PRIMERO Agricultural Herbicide and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by PRIMERO Agricultural Herbicide or other Group 2 herbicides.

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.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of PRIMERO Agricultural Herbicide or other target site of action Group 2 herbicides that have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.

Users should scout before and after application. Users should report lack of performance to registrant or their representative. Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

# STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place, away from children and pets. Keep from freezing.

**Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, if allowed by state and local authorities Stay out of smoke from burning container.

# 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 <u>ALBAUGH, LLC ROTAM AGROCHEMICAL COMPANY</u> <u>LIMITED</u> or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold <u>ALBAUGH, LLC ROTAM AGROCHEMICAL COMPANY LIMITED</u> and Seller harmless for any claims relating to such factors.

ALBAUGH, LLC\_ROTAM\_AGROCHEMICAL\_COMPANY\_LIMITED\_warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or <u>ALBAUGH, LLCROTAM AGROCHEMICAL COMPANY LIMITED</u>, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, <u>ALBAUGH, LLCROTAM AGROCHEMICAL\_COMPANY\_LIMITED</u> MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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[OPTIONAL MARKETING GRAPHICS]



021023

83100 & EPA Approved 03Jun2019 Rotam Agrochemical Co. Ltd. Primero Agricultural Herbicide Master Label – SU Interim Decision 2017

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

File Name	Version Mark	Comment
083100-00008.20230210.DRAFT	<u>021023</u>	Label Notification (Company Name Update, Marketing Changes, Hotline, Booklet Statement, and Chemtrec statement)

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Page **17** of **17**