



**THIFENSULFURON-METHYL GROUP 2 HERBICIDE**

## AGRICULTURAL HERBICIDE

For Use on Wheat, Barley, Oat, Triticale, Fallow, Corn,  
Soybeans and as a Pre-Plant or Post-Harvest Herbicide.

**ACTIVE INGREDIENT:**

Thifensulfuron-methyl\*: Methyl 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino] sulfonyl]-2-thiophenecarboxylate ..... **By Weight** 75.0%

**Other Ingredients:** ..... 25.0%

**Total:** ..... **100.0%**

\*Contains 75 pounds Thifensulfuron-methyl per 100 pounds of product.

### KEEP OUT OF REACH OF CHILDREN **CAUTION/PRECAUCIÓN**

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

See label booklet for First Aid, Precautionary Statements, Directions For Use, and Storage and Disposal.

**EPA Reg. No. 83100-9-83979**

**EPA Est. No.: 69821-CHN-005**

Distributed by:

**ROTAM NORTH AMERICA, INC.**

4900 Koger Blvd., Suite 220

Greensboro, NC 27407

1-866-927-6826

**NET CONTENTS: 10 OUNCES**

PRODUCT OF CHINA



**VOL-A062821-V090221-10OZ**

# Table of Contents

Page	Page
FIRST AID .....	2
PRECAUTIONARY STATEMENTS .....	2
Personal Protective Equipment (PPE).....	2
User Safety Recommendations .....	2
Environmental Hazards .....	3
PESTICIDE HANDLING .....	3
PRODUCT INFORMATION.....	3
BIOLOGICAL ACTIVITY AND	
ENVIRONMENTAL CONDITIONS.....	3-4
DIRECTIONS FOR USE .....	4
NON-TARGET ORGANISM ADVISORY.....	4
AGRICULTURAL USE REQUIREMENTS.....	4
WINDBLOWN SOIL PARTICLES ADVISORY.....	5
FALLOW TREATMENT .....	5
PRE-PLANT BURNDOWN .....	5-6
WEEDS CONTROLLED IN CEREALS,	
FALLOW AND PRE-PLANT BURNDOWN .....	6
CEREALS .....	7-12
SOYBEANS .....	12-16
FIELD CORN.....	16-17
POST HARVEST BURNDOWN.....	17-18
PRODUCT USE AND APPLICATION	
DIRECTIONS – ALL CROPS AND USES .....	18
Ground Application .....	18
Aerial Application .....	18-19
Spray Adjuvants .....	19
Crop Rotation .....	19
Grazing .....	19
Mixing Instructions .....	19-20
Spray Equipment and Cleanup .....	20-21
Spray Drift Management .....	21-23
Weed Resistance Management.....	23-24
Integrated Pest Management .....	24
Precautions and Restrictions.....	24-25
STORAGE AND DISPOSAL.....	25
CONDITIONS OF SALE AND LIMITATION	
OF WARRANTY AND LIABILITY .....	26

## FIRST AID

### IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

### IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at **1-800-858-7378** or your local Poison Control Center for assistance.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, natural rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥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:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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 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.

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

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for days 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 thifensulfuron-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.

## PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/ grove or mixing/loading station.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

## PRODUCT INFORMATION

VOLTA AGRICULTURAL HERBICIDE is directed for use for selective post-emergence control of certain broadleaf weeds in wheat (including durum), barley, oat, triticale, post-harvest burndown, pre-plant burndown, fallow, corn, and soybeans. VOLTA AGRICULTURAL HERBICIDE is a dry flowable granule to be mixed in water or other recommended carrier and applied as a uniform broadcast spray. It is noncorrosive, nonflammable, non-volatile and does not freeze.

## BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

Best results are obtained when VOLTA AGRICULTURAL HERBICIDE is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree of control and duration of effect are dependent on rate used, sensitivity and size of target weed and environmental conditions at the time of and following application.

VOLTA AGRICULTURAL HERBICIDE stops growth of susceptible weeds rapidly. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1-3 weeks after application (2-5 weeks for wild garlic) depending on the environmental conditions and weed susceptibility. Warm, moist conditions following treatment promote the activity of VOLTA AGRICULTURAL HERBICIDE, while cold, dry conditions delay the activity. Weeds hardened-off by cold weather or drought stress will be less susceptible.

A vigorous growing crop will aid weed control by shading and providing competition for weeds. However, a dense crop canopy at time of application can intercept spray and result in reduced weed control. Weeds may not be adequately controlled in areas of thin crop stand or seeding skips.

Applications made to weeds that are in the cotyledon stage, larger than the size indicated, or to weeds under stress may result in unsatisfactory control.

VOLTA AGRICULTURAL HERBICIDE may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, different varieties of the crop may have differing levels of sensitivity to treatment with VOLTA AGRICULTURAL HERBICIDE under otherwise normal conditions. Treatment of sensitive crop varieties may injure crops.

Weed control may be reduced if rainfall or snowfall occurs soon after application. Several hours of dry weather are needed to allow VOLTA AGRICULTURAL HERBICIDE to be sufficiently absorbed by weed foliage.

To reduce the potential of crop injury in cereals, tank mix VOLTA AGRICULTURAL HERBICIDE with 2,4-D (ester formulations perform best—see the TANK MIXTURES section of this label) and apply after the crop is in the tillering stage of growth.

## **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**

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.

## **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 required 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
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, natural rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks

**DO NOT** apply this product through any type of irrigation system.

VOLTA AGRICULTURAL HERBICIDE must be used only in accordance with directions on this label or in separately published Rotam directions.

Rotam will not be responsible for losses or damages resulting from the use of this product in any manner not specified on this label.

VOLTA AGRICULTURAL HERBICIDE is directed for use on wheat, barley, oat, triticale, fallow, corn, soybeans, and as a pre-plant and/or post-harvest burndown

herbicide in most states. Check with your state extension service or Department of Agriculture before use to be certain VOLTA AGRICULTURAL HERBICIDE is registered in your state.

## **WINDBLOWN SOIL PARTICLES ADVISORY**

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

## **FALLOW**

### **APPLICATION TIMING**

Apply VOLTA AGRICULTURAL HERBICIDE in the spring, summer or fall when the majority of weeds have emerged and are actively growing. (See the CROP ROTATION section of this label for additional information.)

### **USE RATES**

VOLTA AGRICULTURAL HERBICIDE may be used as a fallow treatment for burndown of emerged weeds, in combination with other suitable registered fallow herbicides (See the TANK MIXTURES section of this label for additional information.)

Apply VOLTA AGRICULTURAL HERBICIDE at 0.3 ounce per acre (0.0141 lb. a.i. thifensulfuron-methyl/acre) to 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) to fallow for control or partial control of the weeds listed in WEEDS CONTROLLED table. Sequential treatments of VOLTA AGRICULTURAL HERBICIDE may be made provided the total amount of VOLTA AGRICULTURAL HERBICIDE applied does not exceed 1.0 ounce per acre (0.0469 lb. a.i. thifensulfuron-methyl/acre).

## **TANK MIXTURES IN FALLOW**

VOLTA AGRICULTURAL HERBICIDE, when used as a fallow treatment, should be tank mixed with other herbicides that are registered for use in fallow, including glyphosate, glyphosate plus 2,4-D (ester formulations work best), glyphosate plus dicamba, 2,4-D (ester formulations work best), or dicamba alone.

### **RESTRICTIONS**

- **DO NOT** apply more than 1.0 ounce per acre (0.0469 lb. a.i. thifensulfuron-methyl/acre) per year.
- **DO NOT** apply more than 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) in a single application.
- Sequential treatments of this product may be made provided the total amount of this product applied does not exceed 1.0 ounce (0.0469 lb. a.i.) per acre and two applications per year.
- RTI: Allow at least 7 days between applications.

## **PRE-PLANT BURNDOWN**

### **APPLICATION TIMING**

For burndown of emerged weeds, broadcast applications of VOLTA AGRICULTURAL HERBICIDE may be applied before wheat (including durum), barley, oat, triticale, soybeans, and field corn plants emerge. Before planting any other crop (such as sugar beets, canola, rice, or grain sorghum) apply VOLTA AGRICULTURAL HERBICIDE as a burndown treatment at least 45 days prior to planting (see the CROP ROTATION section of this label for additional information).

Apply VOLTA AGRICULTURAL HERBICIDE as burndown treatment in cotton when a majority of weeds have emerged. Allow at least 7 days after application before planting cotton. Allow at least 5 months between application of VOLTA AGRICULTURAL HERBICIDE and cotton harvest.

### **USE RATES**

VOLTA AGRICULTURAL HERBICIDE may be used as a burndown treatment prior to planting any crop; or shortly after planting, but prior to emergence of

wheat (including durum), barley, oat, triticale, soybeans and field corn (see the APPLICATION TIMING section of this label for restriction on planting intervals).

Apply VOLTA AGRICULTURAL HERBICIDE at 0.3 ounce per acre (0.0141 lb. a.i. thifensulfuron-methyl/acre) to 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) for control or partial control of the weeds listed below, except when planting to cotton where VOLTA AGRICULTURAL HERBICIDE can be applied at 0.2 ounce per acre (0.0094 lb. a.i. thifensulfuron-methyl/acre) to 0.33 ounce per acre (0.0155 lb. a.i. thifensulfuron-methyl/acre). Use the 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) rate when weed infestation is heavy and predominantly consists of those weeds listed under the WEEDS PARTIALLY CONTROLLED section of this label, or when application timing and environmental conditions are marginal. Sequential treatments of VOLTA AGRICULTURAL HERBICIDE may also be made provided the total amount of VOLTA AGRICULTURAL HERBICIDE applied during one season does not exceed 1.0 ounce per acre (0.0469 lb. a.i. thifensulfuron-methyl/acre).

VOLTA AGRICULTURAL HERBICIDE should be applied in combination with other suitable registered pre-plant burndown herbicides (See the TANK MIXTURES section of this label for additional information).

## CEREALS, FALLOW AND PRE-PLANT BURNDOWN

### Weeds Controlled

Annual knawel	False chamomile	Russian thistle†*
Annual sowthistle	Field pennycress	Scentless chamomile/ mayweed
Black mustard	Flixweed	Shepherd's purse
Bushy wallflower (Treacle mustard)	Green smartweed	Smallflower buttercup
Carolina geranium	Kochia†	Stinking mayweed/ Dogfennel
Coast fiddleneck	Ladysthumb	Swinecress
Common buckwheat	London rocket	Tarweed fiddleneck
Common chickweed*	Mallow (little)	Tumble/Jim Hill mustard
Common groundsel	Marshelder	Volunteer lentils
Common lambsquarters	Miners lettuce	Volunteer peas
Corn chamomile	Mouseear chickweed	Volunteer sunflower*
Corn spurry	Pennsylvania smartweed	Wild buckwheat*
Cress (mouse-ear)	Prostrate knotweed	Wild chamomile
Curly dock	Redmaids	Wild garlic*
	Redroot pigweed	Wild mustard

### Partial Control\*\*

Common cocklebur	Henbit	Tansy mustard*
Common sunflower	Mallow (common)	Wild radish*
Cutleaf evening primrose	Prickly lettuce*	

\*See SPECIFIC WEED PROBLEMS in the Cereals section below for more information.

\*\*Partial control: A visual reduction of weed population as well as a significant loss of vigor for individual weed plants. For better results, use 0.5 ounce per acre (0.0234 lb. a.i. thifensulfuron-methyl/acre) or 0.6 ounce VOLTA

AGRICULTURAL HERBICIDE per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) and include a tank mix partner such as 2,4-D, MCP, bromoxynil, or dicamba, refer to the TANK MIXTURES section of this label.

† Naturally occurring resistant biotypes of kochia, prickly lettuce and Russian thistle are known to occur. See the TANK MIXTURES and SPECIFIC WEED PROBLEMS sections of this label for additional details.

#### **TANK MIXTURES IN PRE-PLANT BURNDOWN APPLICATIONS**

VOLTA AGRICULTURAL HERBICIDE may be used as a pre-plant burndown treatment alone or tank mixed with other herbicides that are registered for use as a pre-plant burndown product, including glyphosate, glyphosate plus 2,4-D, glyphosate plus dicamba, or dicamba alone.

#### **RESTRICTIONS**

- Sequential treatments of this product may be made provided the total amount of this product applied during one year does not exceed 1.0 ounce (0.0469 lb. a.i.) per acre.
  - RTI: Allow at least 7 days between applications.
- For Wheat (including durum), Barley, Oat, Triticale, Soybeans and Field Corn
- **DO NOT** apply more than 0.6 ounce (0.0281 lb. a.i.) per acre in a single application.
  - **DO NOT** apply more than 0.6 ounce (0.0281 lb. a.i.) per acre per year.
  - **DO NOT** make more than one application per year.
- For Cotton
- **DO NOT** apply more than 0.3 ounce (0.0141 lb. a.i.) per acre in a single application.
  - **DO NOT** apply more than 0.3 ounce (0.0141 lb. a.i.) per acre per year.
  - **DO NOT** make more than one application per year.
  - **DO NOT** apply later than 7 days before planting cotton.
  - PHI: Allow at least 5 months between application of this product and cotton harvest.

## **CEREALS**

#### **APPLICATION TIMING**

##### **Wheat (Including Durum), Barley, Triticale and Winter Oat**

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.

##### **Spring Oat**

Make applications after the crop is in the 3-leaf stage, but before jointing. **DO NOT** use on "Ogle", "Porter" or "Premier" varieties since crop injury can occur.

#### **USE RATES**

In cereals, **DO NOT** use less than 0.3 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0141 lb. a.i. thifensulfuron-methyl/acre).

If predominant weed(s) in field is (are) one of those listed in WEEDS PARTIALLY CONTROLLED table below, always include a tank mix partner (refer to TANK MIXTURES).

Apply 0.5 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0234 lb. a.i. thifensulfuron-methyl/acre) to wheat (\*including durum), barley or triticale for control or partial control of the weeds listed below.

Use 0.6 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) when weed infestation is heavy and predominately consists of those weeds listed under partial control, or when application timing and environmental conditions are marginal (refer to the APPLICATION TIMING and PRODUCT INFORMATION sections of this label).

Use 0.3 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0141 lb. a.i. thifensulfuron-methyl/acre) when weed infestation is light and predominately consists of those weeds listed under weeds controlled, and when optimum application conditions occur.

Sequential treatments of VOLTA AGRICULTURAL HERBICIDE may be made provided the total amount of VOLTA AGRICULTURAL HERBICIDE applied to the



crop does not exceed 1.0 ounce per acre (0.0469 lb. a.i. thifensulfuron-methyl/acre).

#### **Oat (Spring and Winter)**

Apply 0.3 ounce per acre (0.0141 lb. a.i. thifensulfuron-methyl/acre) to 0.4 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0188 lb. a.i. thifensulfuron-methyl/acre) for control of the weeds listed in WEEDS CONTROLLED table.

If predominant weed(s) in field is (are) one of those listed in WEEDS PARTIALLY CONTROLLED table below, always include a tank mix partner (refer to TANK MIXTURES).

**DO NOT** make more than one application of VOLTA AGRICULTURAL HERBICIDE per crop season on oat.

#### **RESTRICTIONS**

Wheat, Barley and Triticale

- **DO NOT** use less than 0.3 ounce (0.0141 lb. a.i.) per acre.
- **DO NOT** apply more than 0.6 (0.0281 lb. a.i.) per acre in a single application.
- **DO NOT** apply more than 1 ounce (0.0469 lb. a.i.) per acre per year.
- Two applications of this product may be made provided the total amount of this product applied to the crop does not exceed 1.0 ounce (0.0469 lb. a.i.) per acre.
- RTI: Allow at least 7 days between applications.
- PHI: Do not harvest within 45 days of the last application.

Oat (Spring and Winter)

- **DO NOT** use less than 0.3 ounce (0.0141 lb. a.i.) per acre.
- **DO NOT** apply more than 0.4 ounce (0.0188 lb. a.i.) per acre in a single application.
- **DO NOT** make more than one application of this product per year.
- PHI: Do not harvest within 45 days of the last application.
- For Spring Oat, do not use on Ogle, Porter or Premier Varieties since crop injury can occur.

#### **SPECIFIC WEED PROBLEMS**

**Common Chickweed and Wild Buckwheat:** For best results, apply a minimum of 0.5 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0234 lb. a.i. thifensulfuron-methyl/acre) plus surfactant when all or the majority of weeds have germinated and are past the cotyledon stage. Weeds should be less than 3 inches tall or across at the time of VOLTA AGRICULTURAL HERBICIDE application.

**Kochia:** Naturally occurring biotypes resistant to VOLTA AGRICULTURAL HERBICIDE are known to occur. For best results, use VOLTA AGRICULTURAL HERBICIDE in a tank mix with dicamba and 2,4-D, or bromoxynil and 2,4-D containing products. Apply VOLTA AGRICULTURAL HERBICIDE in the spring when kochia are less than 2" tall and are actively growing (refer to TANK MIXTURES section of this label for more information).

VOLTA AGRICULTURAL HERBICIDE should be applied in the spring when kochia are less than 2" tall and are actively growing (refer to the TANK MIXTURES section of this label for additional details on rates and restrictions).

**Tansymustard:** For best results, use 0.5 ounce per acre (0.0234 lb. a.i. thifensulfuron-methyl/acre) to 0.6 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) plus 2,4-D or MCPA. Refer to the TANK MIXTURES section of this label for more information.

**Russian Thistle, Prickly Lettuce:** Naturally occurring biotypes resistant to VOLTA AGRICULTURAL HERBICIDE of these weeds are known to occur. For best results, use VOLTA AGRICULTURAL HERBICIDE in a tank mix with dicamba and 2,4-D or MCP (ester or amine), or bromoxynil containing product and 2,4-D.

VOLTA AGRICULTURAL HERBICIDE should be applied in the spring when Russian thistle and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the TANK MIXTURES section of this label for additional details on rates and restrictions).

**Wild Garlic:** For best results, apply 0.5 ounce per acre (0.0234 lb. a.i. thifensulfuron-methyl/acre) to 0.6 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) plus surfactant when wild garlic plants are less than 12 inches tall with 2 to 4 inches of new growth. For severe infestations, use the 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) rate of VOLTA AGRICULTURAL HERBICIDE. Control may be reduced when plants are hardened-off by cold weather and/or drought stress. Control is enhanced when applications are made during warm temperatures to actively growing wild garlic plants. Typical symptoms of dying wild garlic plants (discoloration and collapse) may not be noticeable for 2-5 weeks.

Thorough coverage of all garlic plants is essential.

Tank mixes of VOLTA AGRICULTURAL HERBICIDE plus metribuzin may result in reduced control of wild garlic.

**Wild Radish:** For best results, apply 0.5 ounce per acre (0.0234 lb. a.i. thifensulfuron-methyl/acre) to 0.6 ounce VOLTA AGRICULTURAL HERBICIDE per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) plus surfactant either in the fall or spring to wild radish rosettes less than 6 inches in diameter. Applications made later than 30 days after weed emergence will result in partial control. Fall applications should be made prior to hardening-off of plants.

**SU/IMI Tolerant Volunteer Sunflowers:** Control may not be adequate because varieties resistant to SU and IMI products are commercially unavailable. For best results, use VOLTA AGRICULTURAL HERBICIDE in a tank mix with dicamba and 2,4-D or MCP (ester or amine), or bromoxynil and 2,4-D containing products.

#### **TANK MIXTURES**

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. If those directions conflict with this label, DO

NOT tank mix that product with VOLTA AGRICULTURAL HERBICIDE.

#### **2,4-D (amine or ester) or MCPA (amine or ester)**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with the amine and ester formulations 2,4-D and MCPA herbicides for use on wheat, barley, oat, triticale, or fallow.

For best results in the Red River Valley and adjacent areas of North Dakota and Minnesota, add the ester formulations of 2,4-D or MCPA herbicides to the tank at 3/8 lb. active ingredient (such as 3/4 pint of a 4 lbs./gal. product, 1/2 pint of a 6 lbs./gal. product). No additional surfactant is needed with this mixture. For best results, in other areas, add the ester formulations of 2,4-D or MCPA herbicides to the tank at 1/4 to 3/8 lb. active ingredient (such as 1/2-3/4 pint of a 4 lbs./gal. product, 1/3-1/2 pint of a 6 lbs./gal. product). Nonionic surfactant may be added to the mixture at 1/2 to 1 quart per 100 gals. of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury, especially at the higher phenoxy rates. Higher rates of 2,4-D or MCPA may be used, but **DO NOT** exceed the highest rate allowed by those respective labels.

#### **Dicamba (such as BANVEL [EPA Reg. No. 66330-276] or CLARITY [EPA Reg. No. 7969-137])**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with 1/16 to 1/8 lb. active ingredient dicamba (such as 2-4 fluid ounces BANVEL or 2-4 fluid ounces CLARITY). Use higher rates when weed infestation is heavy. Nonionic surfactant may be added to the mixture at 1/2 to 1 quart per 100 gals. of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury. Refer to the specific dicamba label for application timing and restrictions. Tank mixes of VOLTA AGRICULTURAL HERBICIDE plus dicamba may result in reduced control of some broadleaf weeds.

**2,4-D (amine or ester) and BANVEL [EPA Reg. No. 66330-276] or CLARITY [EPA Reg. No. 7969-137]**

VOLTA AGRICULTURAL HERBICIDE may be applied in a 3-way tank mix with formulations of dicamba and 2,4-D or MCP. Make application of VOLTA AGRICULTURAL HERBICIDE plus 1/16 to 1/8 lb. active ingredient dicamba (such as 2-4 fluid ounces BANVEL or 2-4 fluid ounces CLARITY) plus ¼ - 3/8 lb. active ingredient 2,4-D or MCP ester or amine per acre. Use higher rates when weed infestation is heavy. Nonionic surfactant may be added to the mixture at ½ to 1 quart per 100 gals. of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury. Apply this three-way combination to winter wheat and winter oat after the crop is tillering and prior to jointing (first node).

In Spring Wheat (including Durum) and Spring Oat, apply after the crop is tillering and before it exceeds the 5-leaf stage.

In Spring Barley, apply after the crop is tillering and before it exceeds the 4-leaf stage.

**Bromoxynil**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with bromoxynil containing herbicides registered for use on wheat, barley, or triticale. For best results, add bromoxynil containing herbicides to the tank at 3/16 - 3/8 lb. active ingredient per acre. Note that tank mixes of VOLTA AGRICULTURAL HERBICIDE plus bromoxynil may result in reduced control of Canada thistle.

**STARANE Ultra (EPA Reg. No. 62719-577, fluroxypyr-meptyl), STARANE Ultra + SALVO (EPA Reg. No. 34704-609, 2,4-D ester), STARANE Ultra + SWORD (EPA Reg. No. 34704-1121, MCPA ester)**

For improved control of Kochia (2-4" tall), VOLTA AGRICULTURAL HERBICIDE may be tank mixed with 1/3 to 1 1/3 pints per acre of STARANE ULTRA, 2/3 to 2 2/3 pints per acre of STARANE ULTRA + SALVO, 3/4 to 2 3/4 pints per acre of STARANE ULTRA + SWORD.

2,4-D and MCPA herbicides (preferably ester formulations) may be tank mixed with VOLTA AGRICULTURAL HERBICIDE plus STARANE. Consult local recommendations and the TANK MIXTURES section of this label for additional information.

**MAVERICK HERBICIDE (EPA Reg. No. 59639-223, sulfosulfuron)**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with MAVERICK HERBICIDE for improved control of weeds in wheat. Refer to the MAVERICK HERBICIDE label for information regarding use restrictions, labeled crops, rotational cropping directions, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. **DO NOT** use the tank mix if any restrictions on the MAVERICK HERBICIDE label conflict with the directions on the VOLTA AGRICULTURAL HERBICIDE label.

**Carfentrazone-ethyl**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with carfentrazone-ethyl for improved control of weeds in wheat and barley. Refer to the carfentrazone-ethyl label for information regarding use restrictions, labeled crops, rotational cropping directions, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. **DO NOT** use the tank mix if any restrictions on the label conflict with the directions on the VOLTA AGRICULTURAL HERBICIDE label.

**STINGER (EPA Reg. No. 62719-73, Clopyralid) or CURTAIL (EPA Reg. No. 62719-48, Clopyralid + 2,4-D), or, CURTAIL M (EPA Reg. No. 62719-86, Clopyralid + MCPA), or WIDEMATCH (EPA Reg. No. 62719-512, Clopyralid + Fluroxypyr)**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with STINGER or CURTAIL, or CURTAIL M, or WIDEMATCH herbicide for improved control of weeds in wheat and barley. Refer to the STINGER, or CURTAIL, or CURTAIL, or WIDEMATCH labels for information regarding use restrictions, labeled crops, rotational cropping directions, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply.

**DO NOT** use the tank mix if any restrictions on the STINGER or CURTAIL, or CURTAIL M, or WIDEMATCH labels conflict with the directions on the VOLTA AGRICULTURAL HERBICIDE label.

#### **Tribenuron-methyl**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with tribenuron-methyl. Consult your local Extension office for recommendations in your state.

#### **Metsulfuron-methyl**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with metsulfuron-methyl. Consult your local Extension office for recommendations in your state.

#### **DISCOVER NG (EPA Reg. No. 100-1173, Clodinafop-propargyl)**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with DISCOVER NG herbicide for improved control of weeds in spring wheat. Refer to the DISCOVER NG label for information regarding use restrictions, labeled crops, rotational cropping directions, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. **DO NOT** use the tank mix if any restrictions on the DISCOVER NG label conflict with the directions on the VOLTA AGRICULTURAL HERBICIDE label.

#### **Flucarbazone-sodium**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with flucarbazone-sodium for improved control of weeds in spring wheat. Refer to the label for information regarding use restrictions, labeled crops, rotational cropping directions, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. **DO NOT** use the tank mix if any restrictions on the flucarbazone-sodium label conflict with the directions on the VOLTA AGRICULTURAL HERBICIDE label.

#### **PUMA 1 EC (EPA Reg. No. 264-666, fenoxaprop-p-ethyl)**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with PUMA 1EC for control of some annual grass weeds. This tank mix may also include MCPA ester, bromoxynil or bromoxynil/MCPA for greater spectrum of broadleaf control. See

PUMA 1EC label for specific use directions and restrictions on tank mixes. Read and follow all label instructions on the EPA approved PUMA 1EC label for tank mixes, application timing, precautions, and restrictions. If those directions conflict with this label, **DO NOT** tank mix the product with VOLTA AGRICULTURAL HERBICIDE.

#### **Other Grass Control Products**

VOLTA AGRICULTURAL HERBICIDE can be tank mixed with grass control products. Antagonism generally does not occur. However, it is recommended that you first consult your state experiment station, university extension agent, or dealer from whom you purchased the product, as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of VOLTA AGRICULTURAL HERBICIDE and the grass product to a small area.

#### **Fungicides**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed or used sequentially with fungicides registered for use on cereal grains.

#### **Insecticides**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed or used sequentially with insecticides registered for use on cereal grains. However, under certain conditions (drought stress, cold weather, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications of VOLTA AGRICULTURAL HERBICIDE with organophosphate insecticides may produce temporary crop yellowing or, in severe cases, crop injury. The potential for crop 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** apply VOLTA AGRICULTURAL HERBICIDE within 60 days of crop emergence where an organophosphate insecticide has been applied as an in-furrow treatment because crop injury may result.

**DO NOT use VOLTA AGRICULTURAL HERBICIDE plus malathion because crop injury will result.**

### **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 VOLTA AGRICULTURAL HERBICIDE in fertilizer solution.

VOLTA AGRICULTURAL HERBICIDE 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 VOLTA AGRICULTURAL HERBICIDE is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/2 pint – 1 quart per 100 gals. of spray solution (0.06 -0.25% v/v) based on local recommendations.

When using high rates of liquid nitrogen fertilizer in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or ROTAM representative for a specific recommendation before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included as a tank mix with VOLTA AGRICULTURAL HERBICIDE, additional surfactant may not be needed when using liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or ROTAM representative for a specific recommendation before adding an adjuvant to these tank mixtures.

**Note: In certain areas east of the Mississippi river unacceptable crop response may occur with use of straight or dilute nitrogen fertilizer carrier solutions where cold temperatures or widely fluctuating day/night temperatures exist. In these areas consult your agricultural dealer, consultant, field advisor, or ROTAM representative for a specific recommendation before using nitrogen fertilizer carrier solutions.**

Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

**DO NOT** use low rates of liquid fertilizer as a substitute for a surfactant.

**DO NOT** use with liquid fertilizer solutions with a pH less than 3.0.

## **SOYBEANS**

### **APPLICATION TIMING (POST EMERGENCE)**

VOLTA AGRICULTURAL HERBICIDE may be applied to soybeans any time after the first trifoliolate has expanded fully. Apply no later than 60 days before harvest.

Early-season soybean injury may result from tank-mix applications with other registered herbicides. Injury may manifest itself as stunting (seen as a reduction in leaf size or internode length), yellowing leaves and/or red veins, and necrosis in the leaves and petioles. The potential for soybean injury is most pronounced with applications made during hot, humid conditions, under widely fluctuating weather or temperature conditions, or with applications to soybeans under stress.

### **USE RATES IN SOYBEANS**

Make a single application of VOLTA AGRICULTURAL HERBICIDE at a rate of 0.083 (1/12) ounce per acre (0.0039 lb. a.i. thifensulfuron-methyl/acre) for selective post-emergence broadleaf weed control on conventional soybean varieties.

VOLTA AGRICULTURAL HERBICIDE at up to 1/3 ounce per acre (0.0155 lb. a.i. thifensulfuron-methyl/acre) is directed for use on soybeans designated "STS". Severe injury or death of soybeans will result if any soybeans not designated as "STS" are treated with more than 1/12 ounce (0.0039 lb. a.i. thifensulfuron-methyl/acre) of VOLTA AGRICULTURAL HERBICIDE. Multiple applications of VOLTA AGRICULTURAL HERBICIDE may be applied to "STS" soybeans provided no more than a total of 1/3 ounce is applied per season (0.0155 lb. a.i. thifensulfuron-methyl/acre).

### **SPRAY ADDITIVES**

Applications of VOLTA AGRICULTURAL HERBICIDE in soybeans must include a nonionic surfactant or crop oil concentrate, and an ammonium nitrogen fertilizer. See SPRAY ADJUVANTS.

## WEEDS CONTROLLED

When applied to soybeans as directed VOLTA AGRICULTURAL HERBICIDE will control the following weeds:

Weeds Controlled	Maximum Size (inches) at Application
Annual smartweeds	6
Lambsquarters	4
Pigweed	
Rough (redroot)	12
Other species	8
Velvetleaf	6
Wild Mustard	up to 4" in dia.
<b>Partial Control*</b>	
Cocklebur	6
Jimsonweed	4
Wild Sunflower	6

\*Partial Control: A visual reduction of weed population as well as a significant loss of vigor for individual weed plants.

See WEEDS CONTROLLED in the CEREALS, FALLOW and PRE-PLANT BURNDOWN section for a listing of weeds controlled using applications of 1/3 oz. of this product (0.0155 lb. a.i. thifensulfuron-methyl/acre) in "STS" soybeans.

## RESTRICTIONS

Conventional Soybeans

- **DO NOT** apply more than 0.083 (1/12) ounce (0.0039 lb. a.i.) per acre in a single application.
- **DO NOT** apply more than 0.083 (1/12) ounce (0.0039 lb. a.i.) per acre per year.

- **DO NOT** make more than 1 application per year.
  - PHI: Apply no later than 60 days before harvest.
- STS Designated Soybeans
- **DO NOT** apply more than 1/3 ounce (0.0155 lb. a.i.) per acre in a single application.
  - **DO NOT** apply more than 1/3 ounce (0.0155 lb. a.i.) per acre per year.
  - **DO NOT** make more than 5 applications per year at 0.083 (1/12) ounce (0.0039 lb. a.i.) per acre per application.
  - RTI: Allow at least 7 days between applications.
  - PHI: Apply no later than 60 days before harvest.

## TANK MIXTURES IN SOYBEANS

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with full or reduced rates of other products registered for use in soybeans. However, ROTAM will not warrant crop safety or weed control of VOLTA AGRICULTURAL HERBICIDE tank mixtures with any other pesticide or spray adjuvant except as specified in this label or other ROTAM supplemental labeling or technical bulletins.

**DO NOT** tank mix VOLTA AGRICULTURAL HERBICIDE with organophosphate insecticides, or apply VOLTA AGRICULTURAL HERBICIDE within 14 days before or after an application of an organophosphate insecticide, as severe crop injury may occur.

## PURSUIT DG (EPA Reg. No. 241-350, Imazethapyr) Tank Mix in Soybeans (State of North Dakota Only)

This tank mix is labeled for the control of broad leaf weeds only. Different control measures should be used to control grassy weeds, such as a soil applied preemergence grass herbicide application in a planned weed control program with VOLTA AGRICULTURAL HERBICIDE plus PURSUIT DG.

**BEFORE USING VOLTA AGRICULTURAL HERBICIDE AND PURSUIT DG, READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA-REGISTERED LABELS.**

**Use Rate:** Apply a tank mix of 1/12 ounce/acre of VOLTA AGRICULTURAL HERBICIDE (0.0039 lb. a.i. thifensulfuron-methyl/acre) plus 1.08 ounce/acre PURSUIT DG for post-emergence control of the broadleaf weeds listed in the table below. Best results are obtained when the VOLTA AGRICULTURAL HERBICIDE plus PURSUIT DG tank mix is applied to weeds that are young (after the first true leaves have expanded but before they exceed the size indicated in the table below) and actively growing. Applications made to weeds that are in the cotyledon stage larger than the size indicated below, or to weeds under stress (weather, herbicide, or other) may result in unsatisfactory control.

<b>Weeds Controlled VOLTA AGRICULTURAL HERBICIDE + PURSUIT DG*</b>	<b>Size (Height in Inches)</b>
Cocklebur	2-4
Lambsquarters	2-4
Nightshade black, eastern black, hairy	1-3
Pigweed	
rough (redroot)	2-12
other pigweed species	2-8
waterhemp species	2-8
Smartweeds, annual	2-6
Velvetleaf	2-6
Wild Mustard	up to 4" dia.
*Pursuit DG – EPA Reg. No. 241-350, Imazethapyr	

**Application:** Apply after the first trifoliolate of the soybean plant has fully expanded. Applications of VOLTA AGRICULTURAL HERBICIDE plus PURSUIT DG tank mixes must be made before soybeans have begun to flower. There should be an interval of at least 85 days between an application of PURSUIT DG and soybean harvest.

The soybeans should be free from stress and actively growing at the time of application. Stress may be caused by abnormally hot or cold weather, growing conditions such as drought or water-saturated soil, disease, soil nutrient deficiencies such as iron chlorosis or injury from nematodes, insects, or prior herbicide applications.

Applications of VOLTA AGRICULTURAL HERBICIDE plus PURSUIT DG may shorten stem internode length and cause temporary crop injury. Crop response may be increased when applications are made to soybeans that are under stress.

**Tank Mix with Adjuvants:** Post-emergence applications of VOLTA AGRICULTURAL HERBICIDE tank mixed with PURSUIT DG must include the addition of a nonionic surfactant and ammonium nitrogen fertilizer. A nonionic surfactant must be included at the rate of 1 pint per 100 gallons of solution (0.125% v/v concentration). DO NOT use crop oil concentrates or methylated seed oil products.

Use a high quality liquid nitrogen fertilizer such as 28-0-0 at a rate of 4 - 8 pints per acre, or 10-34-0 at a rate of 2 - 4 pints per acre. Use the lower rate for spray volumes less than 15 gallons per acre. Alternately, a high-quality, sprayable grade of ammonium sulfate (21-0-0) may be used at a rate of 2 - 4 pounds per acre.

**Broadcast Application:** Use flat fan nozzles at 25-60 psi. **DO NOT** use flood, hollow cone, raindrop, whirl chamber or controlled droplet applicator (CDA) type nozzles as unacceptable crop injury, excessive spray drift, or poor weed control may result. Use 10-25 gallons of water per acre. For proper spray coverage, adjust the boom and nozzle height according to the specifications listed by the nozzle manufacturer.

**Band Application:** For band application, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator not to exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle types (flat fan nozzles preferred), nozzle orientation, distance of nozzles from the crop and weeds, spray volumes, calibration, and spray pressure.

**Aerial Application:** Use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 5 to 10 GPA. Do not apply during a temperature inversion condition, when winds are gusty, or when other conditions will favor poor coverage and/or off target spray movement. Use a minimum of 5 gallons of water per acre. Consult the respective product labels for special directions for aerial application.

**Rotational Crop Guidelines:** Any crop may be planted 45 days after an application of VOLTA AGRICULTURAL HERBICIDE. Refer to the PURSUIT DG labels for guidelines on planting rotational crops following its use. Follow the maximum time interval listed on the respective labels prior to planting a rotational crop. The most restrictive time interval shall apply.

**RESTRICTIONS:** Refer to the VOLTA AGRICULTURAL HERBICIDE and PURSUIT DG labels for additional use directions, use restrictions, and precautions. The most restrictive provision on either label will apply.

**DO NOT** apply this tank mix through any type of irrigation system.

**DO NOT** graze animals on green forage or stubble.

**DO NOT** utilize hay or straw for animal feed or bedding.

Sequential applications of VOLTA AGRICULTURAL HERBICIDE following post-emergence PURSUIT DG treatments are not recommended because crop injury from sequential post-emergence applications of VOLTA AGRICULTURAL HERBICIDE following PURSUIT DG is greater than from the use of either product applied alone. The first application interferes with the soybean plant's ability to metabolize the second herbicide treatment. Sequential applications may result in severe crop injury.

Any weeds not controlled by the PURSUIT DG application will be stressed at the time of the sequential treatment. This will result in unsatisfactory weed control, particularly for stress sensitive weeds such as lambsquarters.

Weeds that have recovered from a PURSUIT DG application will typically be larger than recommended labeled size by the time soybeans may be safely treated with a VOLTA AGRICULTURAL HERBICIDE application. This will result in unsatisfactory weed control.

VOLTA AGRICULTURAL HERBICIDE plus PURSUIT DG treatments may be tank mixed with ASSURE II Herbicide (EPA Reg. No. 5481-646, Quizalofop-p-ethyl) to control volunteer corn and shattercane. PURSUIT DG will reduce the activity of ASSURE II on all other grasses. For broad spectrum grass control, apply ASSURE II 1 day before, or 7 days after PURSUIT DG treatments. Refer to the ASSURE II label for application rates, weed sizes, and restrictions. Applications within 1 hour of rain may reduce weed control.

Cultivation before, during, or within 7 days after the application may put the weeds under stress by pruning roots. Root pruning may reduce weed control. The best time to cultivate is approximately 14 days after application.

**DO NOT** allow spray from either ground or aerial equipment to drift onto adjacent crops or land as injury to other plants may occur.

**DO NOT** tank mix with organophosphate insecticides, or apply within 14 days before or after an application of an organophosphate insecticide as severe crop injury may occur.

To avoid subsequent injury to crops other than soybeans, thoroughly clean all mixing and spray equipment immediately following application. Refer to the respective labels for cleanout procedures. Follow the more restrictive cleanout recommendation.

#### **Post-Emergence Grass Herbicides Tank Mix for Soybeans**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with post-emergence grass herbicides such as ASSURE® II herbicide.



With post-emergence grass herbicides, surfactant rate (concentration) should be 1-2 pints per 100 gallons of spray solution (0.125%-0.25% v/v concentration). Use of a higher rate of nonionic surfactant, particularly under hot, humid conditions, may result in temporary crop injury. **DO NOT** use crop oil concentrate when tank mixing VOLTA AGRICULTURAL HERBICIDE with post-emergence grass herbicides unless specified on other ROTAM supplemental labeling. Include a nonionic surfactant with the tank mix of VOLTA AGRICULTURAL HERBICIDE and post grass herbicides such as ASSURE® II herbicide.

#### **Glyphosate Tank Mix for Soybeans**

VOLTA AGRICULTURAL HERBICIDE may be tank mixed with glyphosate for control of certain broadleaf weeds in Roundup Ready or Roundup Ready X "STS" stacked trait soybeans. For tank mixtures of VOLTA AGRICULTURAL HERBICIDE plus glyphosate herbicide, always read and follow all use directions, restrictions, and precautions on the EPA approved labels. When tank mixing, the most restrictive labeling applies.

#### **Adjuvants and Glyphosate**

When tank mixing VOLTA AGRICULTURAL HERBICIDE with glyphosate, it is recommended to add ammonium sulfate (AMS) at 4.25 - 17 lbs. per 100 gals. of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen recommendations. When velvetleaf is present, ammonium sulfate is required at a minimum rate of 2 lbs. per acre.

The addition of surfactant at 0.125 - 0.25% v/v (1-2 pts. per 100 gals. spray mixture) to some VOLTA AGRICULTURAL HERBICIDE plus glyphosate tank mixes will improve weed control when glyphosate products are used that do not contain built-in adjuvant systems. Glyphosate products differ in their adjuvant contents. Glyphosate products such as GLYPHOMAX (EPA Reg. No. 62719-323) or ROUNDUP ORIGINAL II (EPA Reg. No. 524-454) allow for addition of surfactants. See the manufacturer's specific surfactant recommendations.

#### **SEQUENTIAL APPLICATIONS IN SOYBEANS**

Before making applications of VOLTA AGRICULTURAL HERBICIDE to soybeans previously treated with other herbicides, ensure that the soybeans are free from

stress (herbicide or environmental) and actively growing.

## **FIELD CORN**

#### **RESTRICTIONS**

- **DO NOT** apply to sweet corn, popcorn or field corn grown for seed.
- **DO NOT** apply this product through any type of irrigation systems.
- **DO NOT** graze or feed forage or grain from treated field corn to livestock within 30 days of application.
- This product is limited to ground application only in the State of New York. **DO NOT** apply by air in that state.
- **DO NOT** apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive.
- **DO NOT** apply more than 0.083 (1/12) ounce (0.0039 lb. a.i.) per acre in a single application.
- **DO NOT** apply more than 0.083 (1/12) ounce (0.0039 lb. a.i.) per acre per year.
- **DO NOT** make more than one application per year.
- PHI: Apply no later than 30 days before harvest.

#### **APPLICATION INFORMATION**

VOLTA AGRICULTURAL HERBICIDE may be applied to 2-6 leaf field corn (1-5 collars, up to 16 inches tall) at a rate of 0.083 (1/12) ounce per acre (0.0039 lb. a.i. thifensulfuron-methyl/acre). **DO NOT** apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive.

VOLTA AGRICULTURAL HERBICIDE may be applied as a tank mixture with labeled rates of atrazine and glyphosate. **DO NOT** tank mix with other corn herbicides unless specified on VOLTA AGRICULTURAL HERBICIDE TA labels or technical bulletins.

Apply VOLTA AGRICULTURAL HERBICIDE to field corn hybrids with a Relative Maturity (RM) of 88 days or more, including "food grade" (yellow dent, hard endosperm), waxy and high-oil corn. Not all field corn hybrids of less than 88 days RM, not all white corn hybrids or Hi-Lysine hybrids have been tested for crop safety, nor does ROTAM have access to all seed company data. Consequently,

injury arising from the use of VOLTA AGRICULTURAL HERBICIDE on these types of corn is the responsibility of the user. Consult with your seed supplier before applying VOLTA AGRICULTURAL HERBICIDE to any of these corn types. **DO NOT** make more than one application per season.

#### **TIMING TO WEEDS**

Apply to weeds whose first true leaves are expanded but before weeds exceed the sizes listed below.

When applied as directed, VOLTA AGRICULTURAL HERBICIDE will control the following weeds in corn:

<b>WEED</b>	<b>Maximum Size (inches)</b>
Velvetleaf	6
Pigweed species	12
Lambsquarters	4
Annual smartweeds	6
Wild mustard	up to 4" in dia.

#### **ADJUVANTS**

Always add either nonionic surfactant at 0.25% v/v (1 qt./100 gals.) or crop oil concentrate at 1% v/v (1 gal./100 gals.) plus either ammonium nitrogen solution such as 28% UAN (2-4 qts./acre) of ammonium sulfate (2-4 lbs./acre).

When tank mixing VOLTA AGRICULTURAL HERBICIDE with glyphosate, it is recommended to add ammonium sulfate (AMS) at 4.25 - 17 lbs. per 100 gals. of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen recommendations. When velvetleaf is present, ammonium sulfate is required at a minimum rate of 2 lbs. per acre. The addition of surfactant at 0.125 - 0.25% v/v (1-2 pts. per 100 gals. spray mixture) to some VOLTA AGRICULTURAL HERBICIDE plus glyphosate tank mixes will improve weed control when glyphosate products are used that **DO NOT** contain built-in adjuvant systems. Glyphosate products differ in their adjuvant contents. Glyphosate products such

as GLYPHOMAX (EPA Reg. No. 62719-323) or ROUNDUP ORIGINAL II (EPA Reg. No. 524-454) allow for addition of surfactants. See the manufacturer's specific surfactant recommendations.

#### **SOIL INSECTICIDE INTERACTIONS**

VOLTA 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.

VOLTA AGRICULTURAL HERBICIDE may be applied to corn previously treated with cyfluthrin, tebufos, tefluthrin or non-organophosphate (OP) soil insecticides regardless of soil type.

- **DO NOT** APPLY VOLTA AGRICULTURAL HERBICIDE to corn previously treated with terbufos.
- Applications of VOLTA 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.
- Applications of VOLTA AGRICULTURAL HERBICIDE to corn previously treated with other organophosphate insecticides not listed above, may result in temporary crop injury.

## **POST HARVEST**

#### **APPLICATION TIMING**

VOLTA AGRICULTURAL HERBICIDE may be used as a burndown treatment to crop stubble when the majority of weeds have emerged and are actively growing. (See the CROP ROTATION section of this label for additional information.)

#### **USE RATES**

Apply VOLTA AGRICULTURAL HERBICIDE at 0.3 ounce per acre (0.0141 lb. a.i. thifensulfuron-methyl/acre) to 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) to crop stubble after harvest. Use the 0.6 ounce per acre (0.0281 lb. a.i. thifensulfuron-methyl/acre) rate when weed infestation is heavy and predominantly consists of those weeds listed under the WEEDS PARTIALLY CONTROLLED section of this label or when application timing and environmental conditions are marginal. (See the APPLICATION TIMING section of this label for

restriction on planting intervals). VOLTA AGRICULTURAL HERBICIDE should be applied in combination with other suitable registered burndown herbicides. (See the TANK MIXTURES section of this label for additional information.)

Sequential treatments of VOLTA AGRICULTURAL HERBICIDE may also be made provided the total amount of VOLTA AGRICULTURAL HERBICIDE applied during one fallow/pre-plant cropland season does not exceed 1.0 ounce per acre (0.0469 lb. a.i. thifensulfuron-methyl/acre.)

#### **TANK MIXTURES IN POST HARVEST APPLICATIONS**

VOLTA AGRICULTURAL HERBICIDE may be used as a post-harvest treatment to crop stubble, and should be tank mixed with other herbicides that are registered for use in fallow.

## **PRODUCT USE AND APPLICATION**

### **DIRECTIONS -**

### **ALL CROPS AND USES**

#### **GROUND APPLICATION**

For best performance, select nozzles and pressure that deliver MEDIUM spray. Nozzles that deliver COARSE spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height recommended in manufacturers' specifications.

Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

#### **Wheat, Barley, Oat, Triticale, Post-Harvest Burndown, Pre-Plant Burndown and Fallow**

For flat-fan nozzles, use a spray volume of at least 5 gals. per acre (GPA). For flood nozzles on 30" spacing, use at least 10 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40"

nozzle spacing, use at least 13 GPA; for 60" spacing use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacing.

RAINDROP RA nozzles are not recommended for VOLTA AGRICULTURAL HERBICIDE applications, as weed control performance may be reduced. Use screens that are 50-mesh or larger.

#### **CORN AND SOYBEANS**

##### **Broadcast Application:**

Use 10-25 gallons of water per acre. Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl. Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 15-25 gals. per acre.

**Band Application:** For band applications, use proportionately less spray mixture. To avoid crop injury, 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**

**DO NOT** apply during a temperature inversion, when winds are gusty, or when conditions favor poor coverage and/or off-target spray movement.

In wheat, barley, oats, triticale, post-harvest burndown, pre-plant burndown and fallow, use 2 to 5 gallons per acre; use at least 3 gallons per acre in Idaho, Oregon, and Utah.

In corn and soybeans, use a minimum of 5 gallons per acre.

When applying VOLTA AGRICULTURAL HERBICIDE 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 Spray Drift Management section of this label.

#### **SPRAY ADJUVANTS**

Always include a spray adjuvant with applications of VOLTA AGRICULTURAL HERBICIDE. In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used. **DO NOT** use low rates of liquid nitrogen fertilizer solution as a substitute for surfactant. Antifoaming agents may be used if needed.

Consult your Ag dealer or applicator, local ROTAM fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank mixed with VOLTA AGRICULTURAL HERBICIDE, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

#### **Nonionic Surfactant (NIS)**

Apply 0.06 to 0.50% volume/volume (1/2 pt. to 4 pts. per 100 gals. of spray solution).

Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. See the TANK MIXTURES section of this label for additional information.

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

Apply at 1% v/v (1 gal. per 100 gals. spray solution) or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local ROTAM product literature or service policies. Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

#### **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.

#### **Ammonium Nitrogen Fertilizer**

Use 2 qts./acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lbs./acre of a spray-grade ammonium sulfate (AMS). Use 4 qts./acre UAN or 4 lbs./acre AMS under arid conditions.

#### **CROP ROTATION**

Wheat, barley, oat, triticale, soybeans and field corn may be replanted any time after the application of VOLTA AGRICULTURAL HERBICIDE. Any other crop may be planted 45 days after the application of VOLTA AGRICULTURAL HERBICIDE.

#### **GRAZING**

**DO NOT** graze or feed forage or hay from treated areas to livestock (harvested straw may be used for bedding and/or feed).

#### **MIXING INSTRUCTIONS**

**DO NOT** use with spray additives that alter the pH of the spray solution below pH 5.0 or above pH 9.0, as rapid product degradation can occur. Spray solutions of pH 6.0 - 8.0 allow for optimum stability of VOLTA AGRICULTURAL HERBICIDE.

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of VOLTA AGRICULTURAL HERBICIDE.
3. Continue agitation until the VOLTA AGRICULTURAL HERBICIDE is fully dispersed, at least 5 minutes.
4. Once the VOLTA AGRICULTURAL HERBICIDE is fully dispersed, maintain agitation and continue filling tank with water. VOLTA AGRICULTURAL HERBICIDE should 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 required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. **DO NOT** use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of VOLTA AGRICULTURAL HERBICIDE.

6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply VOLTA AGRICULTURAL HERBICIDE spray mixture within 24 hours of mixing to avoid product degradation.
8. If VOLTA AGRICULTURAL HERBICIDE and a tank mix partner are to be applied in multiple loads, pre-slurry the VOLTA 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 VOLTA AGRICULTURAL HERBICIDE.

### SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc. For specific application equipment, refer to the manufacturer's recommendations 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 crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop. **DO NOT** make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto non-target sites. For additional information on spray drift refer to the SPRAY DRIFT MANAGEMENT section of this label. Continuous agitation is required to keep VOLTA AGRICULTURAL HERBICIDE in suspension.

### SPRAYER CLEANUP

The spray equipment must be cleaned before VOLTA AGRICULTURAL HERBICIDE is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in the AFTER SPRAYING VOLTA AGRICULTURAL HERBICIDE section of this label.

It is recommended that during periods when multiple loads of VOLTA AGRICULTURAL HERBICIDE are applied, 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, which can accumulate in the application equipment.

### AFTER SPRAYING VOLTA AGRICULTURAL HERBICIDE AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY, OAT, TRITICALE, FIELD CORN AND SOYBEANS

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of VOLTA AGRICULTURAL HERBICIDE 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 ingredient) for every 100 gals. of water gal. 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 alternate strength ammonia solution or a ROTAM-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or ROTAM representative for a listing of approved cleaners.

**Notes:**

1. **CAUTION: DO NOT** use chlorine bleach with ammonia because dangerous gases will form. **DO NOT** clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When VOLTA AGRICULTURAL HERBICIDE is tank mixed with other pesticides, all cleanout procedures for each product should be examined and the most rigorous procedure should be followed.
4. In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products should be followed as per the individual product labels. Where routine spraying practices include shared equipment frequently being switched between applications of VOLTA AGRICULTURAL HERBICIDE and applications of other pesticides to VOLTA AGRICULTURAL HERBICIDE - sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to VOLTA AGRICULTURAL HERBICIDE to further reduce the chance of crop injury.

## **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 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.

#### **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.

#### **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.

**APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT 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-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.

#### **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.

### **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, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the SPRAY EQUIPMENT section of this label to determine if use of an air assist sprayer is recommended.

### **WEED RESISTANCE MANAGEMENT**

VOLTA AGRICULTURAL HERBICIDE contains thifensulfuron-methyl 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 VOLTA 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 VOLTA 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 VOLTA 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.

### **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.

### **PRECAUTIONS**

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

- Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:
  - Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.
  - Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, oat, triticale, corn, or soybeans.
- Wheat, barley, oat, triticale, corn and soybean varieties may differ in their response to various herbicides. ROTAM recommends 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 VOLTA AGRICULTURAL HERBICIDE to a small area.
- For wheat, barley, oat, and triticale, under certain conditions such as heavy rainfall, prolonged cold weather (daily high temperature less than 50°F), or wide fluctuations in day/night temperatures prior to or soon after VOLTA AGRICULTURAL HERBICIDE application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix VOLTA AGRICULTURAL HERBICIDE with 2,4-D (ester formulations perform best -see the TANK MIXTURES section of this label) and apply after the crop is in the tillering stage of growth.
- VOLTA AGRICULTURAL HERBICIDE should not be applied to corn, oat, wheat, barley, triticale or soybeans that are stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when the cereal crop is in the 2- to 5-leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.
- For ground applications applied to weeds when dry, dusty field conditions exist; control of weeds in wheel track areas may be reduced.

### **RESTRICTIONS**

- **DO NOT** apply, drain or flush 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 similar areas. Prevent drift of spray to desirable plants.
- **DO NOT** apply to wheat, barley, oat or triticale crops underseeded with another crop.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

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

**Container Handling:** Nonrefillable Container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, or puncture and dispose of in a sanitary landfill, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

## STORAGE AND DISPOSAL cont.

**Residue Removal:** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**SPILLS:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact the CHEMTREC Emergency Response for decontamination procedures.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC AT 1-800-424-9300.**

## **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 Rotam North America, Inc. 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 Rotam North America, Inc. and Seller harmless for any claims relating to such factors.

Rotam North America, Inc. 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 Rotam North America, Inc., and to the extent consistent with applicable law, Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ROTAM NORTH AMERICA, INC. MAKES

NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam North America, Inc. or Seller shall not be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM NORTH AMERICA, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM NORTH AMERICA, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Rotam North America, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam North America, Inc.

All trademarks are the property of their respective owners.

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
Caution. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**  
**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton<sup>®</sup>  $\geq 14$  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:**

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

**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.

**THIFENSULFURON-METHYL GROUP 2 HERBICIDE**

**VOLTA<sup>®</sup>**  
**AGRICULTURAL HERBICIDE**

**For Use on Wheat, Barley, Oat, Triticale, Fallow, Corn, Soybeans and as a Pre-Plant or Post-Harvest Herbicide.**

Active Ingredient:	By Weight
Thifensulfuron-methyl*: Methyl 3-[[[ (4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino] carbonyl] amino] sulfonyl]-2-thiophenecarboxylate	75.0%
Other Ingredients:	25.0%
<b>Total:</b>	<b>100.0%</b>

\*Contains 75 pounds Thifensulfuron-methyl per 100 pounds of product.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION/PRECAUCIÓN**

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

See label booklet for additional Precautionary Statements and Directions For Use.

**EPA Reg. No. 83100-9-83979**  
**EPA Est. No.: 69821-CHN-005**  
Distributed by:  
**ROTAM NORTH AMERICA, INC.**  
4900 Koger Blvd., Suite 220  
Greensboro, NC 27407  
1-866-927-6826



**NET CONTENTS: 10 OUNCES**  
PRODUCT OF CHINA

VOL-A062821-V090221-10OZ

**FIRST AID**

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at **1-800-858-7378** or your local Poison Control Center for assistance.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

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

**STORAGE AND DISPOSAL (Continued)**

**Container Handling:** Nonrefillable Container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, or puncture and dispose of in a sanitary landfill, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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

**SPILLS:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact the CHEMTREC Emergency Response for decontamination procedures.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC AT 1-800-424-9300.**