

67760-77

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

April 16, 2013

Carrie Tackema  
Cheminova, Inc.  
1600 Wilson Blvd., Suite 700  
Arlington, VA 22209

Subject: Label Amendment (incorporate supplemental labels and update label)  
Harass Herbicide  
EPA Reg. No. 67760-77  
Application Dated February 12, 2013

Dear Ms. Tackema:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of the label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products released for shipment after eighteen (18) months from the date of this letter must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at [ondish.mindy@epa.gov](mailto:ondish.mindy@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis".

Kable Bo Davis  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

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GROUP 2 HERBICIDE

## HARASS<sup>®</sup>

### herbicide

A water dispersible granule herbicide for use on barley, field corn, oat, safflower, soybeans, triticale, wheat, fallow, and as a preplant, at plant, or postharvest burndown herbicide

**ACTIVE INGREDIENT:** 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%

**TOTAL:**

100.0%

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE,  
DAY OR NIGHT 1-866-303-6950

Read the entire label before using this product.

Use only according to label instructions.

Read the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES  
before buying or using.

If terms are not acceptable, return product unopened without delay.

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

EPA Reg. No. 67760-77

EPA Est. No.

### NET CONTENTS:

Manufactured for:  
Cheminova, Inc.  
One Park Drive, Suite 150  
P.O. Box 110566  
Research Triangle Park, NC 27709  
[www.cheminova.us.com](http://www.cheminova.us.com)

HARASS<sup>®</sup> is a registered trademark of Cheminova

ACCEPTED

APR 16 2013

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under  
EPA Reg. No. 67760-77

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**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants.
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:**

Users should:

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

**FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

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

**Container Disposal:**

**Nonrefillable containers equal to or less than 5 gallons:**

Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Nonrefillable containers greater than 5 gallons:**

Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete

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revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Repeat this procedure two more times.

#### 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 or at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

#### 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 for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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 made of any waterproof material.  
Shoes plus socks.

HARASS must be used only in accordance with directions on this label or in separately published Cheminova directions.

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

HARASS may be used on barley, field corn, oat, safflower, soybeans, triticale, wheat, fallow, and as a preplant, at plant, or postharvest burndown herbicide in most states. Check with your state extension service or Department of Agriculture before use to be certain HARASS is registered in your state.

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### PRODUCT INFORMATION

HARASS may be used for selective postemergence control of certain broadleaf weeds in wheat (including durum), barley, oat, triticale, post-harvest burndown, fallow, and preplant or at plant burndown in cotton, corn, rice, grain sorghum and soybeans. HARASS is a water dispersible granule to be mixed in water or other recommended carrier and applied as a uniform broadcast spray. It is noncorrosive, nonflammable, nonvolatile and does not freeze.

### RESTRICTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- 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.
- Do not allow sprays to drift to desirable plants.
- Do not apply to wheat, barley, oat or triticale crops underseeded with another crop.
- Do not apply this product through any type of irrigation system.

When using HARASS tank mixes or sequential applications with other products containing thifensulfuron-methyl, do not exceed the following limits.

Use	Active Ingredient	Maximum oz. ai per Single Application	Maximum oz. ai per Use Period
soybean, field corn	thifensulfuron-methyl	0.0625	0.0625
"STS" soybean	thifensulfuron-methyl	0.25	0.25
wheat, barley, triticale	thifensulfuron-methyl	0.45	0.75
oats	thifensulfuron-methyl	0.3	0.3
safflower	thifensulfuron-methyl	0.3	0.3
fallow, burndown, post harvest	thifensulfuron-methyl	0.45	0.75

### PRECAUTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or 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.

For ground applications applied to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. Soybean, corn, safflower, and cereal varieties may differ in their response to various herbicides. Cheminova 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 HARASS to a small area.

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HARASS 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 cereals, under certain conditions such as heavy rainfall, prolonged cold weather (daily high temperatures less than 50 Deg. F.), or wide fluctuations in day/night temperatures prior to or soon after HARASS application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix HARASS with 2,4-D (ester formulations perform best – see the **TANK MIXTURES IN CEREALS** section of this label) and apply after the crop is in the tillering stage of growth.

#### **BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS**

Best results are obtained when HARASS 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.

HARASS 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 HARASS, while cold, dry conditions delay the activity. Weeds hardened-off by cold weather or drought stress will be less susceptible.

A vigorously 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.

HARASS 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 HARASS 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 HARASS to be sufficiently absorbed by weed foliage.

#### **RESISTANCE**

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes. See the Weeds Controlled section of this label for additional information on managing herbicide resistant weed biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representatives for specific alternative cultural practices or herbicide recommendations available in your area.

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## 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.

## SOYBEANS

### Application Timing (Postemergence)

HARASS may be applied to soybeans any time after the first trifoliate has expanded fully. 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.

Late applications (after the bloom stage) may result in crop injury in non-STS soybeans. Apply no later than 60 days before harvest.

### Use Rates in Soybeans

Make a single application of HARASS at a rate of 0.083 ounce per acre for selective postemergence broadleaf weed control on conventional (non-STS) soybean varieties. Apply HARASS at 0.083 to 0.33 ounce per acre for use on soybeans designated "STS" (alone or stacked trait). Severe injury or death to soybeans will result if soybeans not designated as STS are treated with more than 0.083 ounce of HARASS per acre. Multiple applications of HARASS may be applied to STS soybeans provided no more than a total of 0.33 ounce is applied per acre per season.

### Spray Additives

Applications of HARASS in soybeans must include a nonionic surfactant or crop oil concentrate and an ammonium nitrogen fertilizer. See **SPRAY ADJUVANTS** section of this label.

### Weeds Controlled or Suppressed

When applied to soybeans as directed, HARASS will control the following weeds:

Weeds Controlled	Maximum Size (inches) at Application
Annual Smartweeds	6
Lambsquarters	4
Pigweed	
Rough (red root)†	12
Other species	8
Palmer pigweed†	
Velvetleaf	6
Wild Mustard†	Up to 4 in dia.

Partial Control*	Maximum Size (inches) at Application
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.

†Naturally occurring resistant biotypes are known to occur.

### Tank Mixtures in Soybeans

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

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

#### **With Postemergence Grass Herbicides**

Include a nonionic surfactant with the tank mix of HARASS and labeled post grass herbicides. With postemergence 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 HARASS with postemergence grass herbicides unless specified on other Cheminova supplemental labeling.

#### **With Glyphosate**

HARASS may be tank mixed with glyphosate for control of certain broadleaf weeds in STS X Roundup Ready stacked soybeans and Roundup Ready soybeans. In addition to the weeds listed above, this tank mix will provide improved control of volunteer Roundup Ready canola, ALS-sensitive horseweed and kochia, and wild buckwheat.

When tank mixing HARASS with glyphosate, it is recommended to add ammonium sulfate (AMS) at 4.25-17 lb per 100 gal 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 lb per acre.

The addition of surfactant at 0.125-0.25% v/v (1-2 pt per 100 gal spray mixture) to some HARASS 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 adjuvants contents. Glyphosate products such as GLYFOS or GLYFOS XTRA allow for addition of surfactants. See the manufacturer's specific surfactant guidance.

#### **With chlorimuron, such as "Classic" Herbicide**

HARASS may be tank mixed with chlorimuron, such as "Classic" for improved control of certain broadleaf weeds in soybeans. In addition to the weeds listed above, this tank mix will provide improved control of cocklebur, common ragweed, jimsonweed, marehail, and yellow nutsedge. See "Classic" label for additional weeds controlled.

Apply a tank mix of 0.5 ounce "Classic" plus 0.33 ounce HARASS per acre. Application must include a nonionic surfactant (NIS) at 0.125-0.25% v/v (1-2 pt per 100 gal spray solution). Use of the higher rate of NIS, particularly under hot, humid conditions, may increase temporary crop injury. DO NOT use "crop oil concentrate or methylated seed oils as adjuvants with this tank mix. The use of ammonium nitrogen fertilizer is required for control of velvetleaf and ragweeds. See "SPRAY ADJUVANTS". A postemergence grass herbicide may also be tank mixed with HARASS plus chlorimuron.

#### **With "Pursuit" Herbicide (in the states of IL, IN, IA, MI, MN, ND, OH, PA, SD, and WI)**

HARASS may be tank mixed with "Pursuit" herbicide for improved control of nightshade (less than 2" tall) in soybeans. Apply after the first trifoliolate of the soybeans has fully expanded and plants are actively growing but before soybeans begin to flower.

Apply a tank mix of 0.33 ounce HARASS plus 2 fluid ounces of "Pursuit" per acre. Chlorimuron such as "Classic" may also be added to this tank mix at 0.25 to 0.33 ounce per acre. Application must include a nonionic surfactant (NIS) 0.125-0.25% v/v (1pt per 100 gal spray solution). Under dry, cool (generally 70°F or less) conditions the rate of NIS may be increased to 2 pints per 100 gallons of solution. DO NOT use crop oil concentrate or methylated seed oils as adjuvants with this tank mix. The use of ammonium nitrogen fertilizer is required. See SPRAY ADJUVANTS.



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This tank mix combination may shorten stem internodal length and cause temporary crop injury. Crop response may be increased when applications are made to soybeans that are under stress. Soybeans will recover quickly under normal growing conditions. Sequential applications of HARASS following postemergence "Pursuit" applications are not recommended due to the potential for reduced weed control and increased crop injury.

HARASS plus "Pursuit" may be tank mixed with postemergence grass herbicides to control volunteer corn and shattercane. "Pursuit" may reduce the activity of postemergence grass herbicides on other grasses. For broad-spectrum grass control, apply postemergence grass herbicides 1 day before or 7 days after "Pursuit" treatments.

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

Before making applications of HARASS to soybeans previously treated with other herbicides, ensure that the soybeans are free from stress (herbicide or environmental) and actively growing.

#### **CULTIVATION**

A timely cultivation may be necessary to control suppressed weeds, weeds that were beyond the maximum size at the time of application, or weeds that emerge after an application of HARASS. Do not cultivate within 7 days before or after the application. Cultivation may decrease weed control by pruning roots and placing the weeds under stress. The best time to cultivate is approximately 14 days after application.

#### **FIELD CORN**

Apply HARASS to field corn hybrids with 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 Cheminova have access to all seed company data. Consequently, injury arising from the use of HARASS on these types of corn is the responsibility of the user. Consult with your seed supplier before applying HARASS to any of these corn types.

HARASS 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.

HARASS may be applied to corn previously treated with "Fortress", "Aztec", "Force" or non-organophosphate (OP) soil insecticides regardless of soil type.

- Applications of HARASS to corn previously treated with NUFOS® or Lorsban, or other organophosphate insecticides not listed above, may result in temporary crop injury.
- Applications of HARASS to corn previously treated with "Counter" 20CR, NUFOS®, Lorsban or Thimet may cause unacceptable crop injury, especially on soils of less than 4% organic matter.
- DO NOT APPLY HARASS to corn previously treated with "Counter" 15G.

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.

#### **Application Timing**

HARASS may be applied to 2-6 leaf field corn (1-5 collars, up to 16 inches tall) at a rate of 0.083 ounce per acre. Do not apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive.

#### **Use Rates in Field Corn**

Make a single application of HARASS at a rate of 0.083 ounce per acre for selective postemergence broadleaf weed control on field corn hybrids.

Do not make more than one application per season.

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**Spray Additives**

Applications of HARASS in field corn must include either nonionic surfactant at 0.25% v/v (1 qt/100 gal) or crop oil concentrate at 1% v/v (1 gal/100 gal) plus either ammonium nitrogen solution such as 28% UAN (2-4 qt/acre) of ammonium sulfate (2-4 lb/acre). See SPRAY ADJUVANTS.

**Weeds Controlled**

Apply to weeds whose first true leaves are expanded but before weeds exceed the sizes listed below. When applied as directed, HARASS will control the following weeds:

<b>WEED</b>	<b>Maximum Size (Inches)</b>
Velvetleaf	6
Pigweed species†	12
Lambsquarters	4
Annual smartweeds	6
Wild mustard†	up to 4 in diameter

†Naturally occurring resistant biotypes are known to occur.

**Tank Mixtures in Field Corn**

HARASS may be applied as a tank mixture with labeled rates of atrazine. HARASS may be applied as a tank mixture with labeled rates of glyphosate for use only on "Roundup Ready" field corn. Do not tank mix with other corn herbicides unless specified on HARASS labels or technical bulletins.

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

The addition of surfactant at 0.125-0.25% v/v (1-2 pt per 100 gal spray mixture) to some HARASS 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 GLYFOS or "Roundup" Original allow for addition of surfactants. See the manufacturer's specific surfactant instructions.

**CEREALS (Barley, Oats, Triticale, and Wheat (including Durum))**

Do not apply to cereals that are not listed on this label.

**APPLICATION TIMING****Wheat (including Durum), Barley, Triticale and Winter Oats**

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

**Spring Oats**

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**

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

**Wheat, Barley and Triticale**

Apply 0.5 ounce HARASS per acre to wheat (including durum), barley or triticale for postemergence weed control.

Use 0.6 ounce HARASS per acre when weed infestation is heavy and predominantly 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).

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Use 0.3 ounce HARASS per acre when weed infestation is light and predominantly consists of those weeds listed under weeds controlled, and when optimum application conditions occur.

Sequential treatments of HARASS may be made provided the total amount of HARASS applied to the crop does not exceed 1.0 ounce per acre.

#### **Oats (Spring and Winter)**

Apply 0.3 to 0.4 ounce HARASS per acre for control of the weeds listed in **WEEDS CONTROLLED** table.

Do not make more than one application of HARASS per crop season on oat.

#### **SPRAY ADDITIVES**

Application of HARASS in cereals must include a spray adjuvant. See **SPRAY ADJUVANTS**.

#### **TANK MIXTURES IN CEREALS**

NOTE: Read and follow all manufacturers' label directions for any companion herbicides, fungicides, and/or insecticides. If those directions conflict with this label, do not tank mix that product with HARASS. Read and follow all label instructions on timing, precautions, and warnings for any companion products before using these tank mixtures. Follow the most restrictive labeling.

#### **With 2,4-D or MCPA and dicamba**

HARASS may be applied in a 3-way tank mix with formulations of dicamba and 2,4-D or MCPA. Make application of HARASS plus 1/16 to 1/8 lb active ingredient dicamba (such as 2-4 fluid ounces "Banvel" or "Clarity") plus 1/4 – 3/8 lb active ingredient 2,4-D or MCPA ester or amine per acre. Use higher rates when weed infestation is heavy. Nonionic surfactant may be added to the mixture at 1/2 to 1 quart per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury.

Apply to winter wheat and winter oats after the crop is tillering and prior to jointing (first node). In Spring Wheat (including Durum) and Spring Oats, 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.

#### **With dicamba (such as "Banvel/Clarity")**

HARASS 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 gallons 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 HARASS plus dicamba may result in reduced control of some broadleaf weeds.

#### **With Bromoxynil containing products (such as "Buctril", "Bison", "Bronate", "Bronate Advanced")**

HARASS 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 3-6 oz active ingredient per acre (such as "Bronate" or "Bison" at 3/4 - 1 1/2 pt per acre). Note that tank mixes of HARASS plus bromoxynil may result in reduced control of Canada thistle.

#### **With fluroxypyr (such as "Starane" brands)**

HARASS may be tank mixed with fluroxypyr containing herbicides for improved control of Kochia (2-4" tall) and other broadleaf weeds at 1 to 2 ounces active ingredient per acre (such as 1/3 to 2/3 pints per acre of "Starane"). 2,4-D and MCPA herbicides may be tank mixed with HARASS plus fluroxypyr.

#### **With Other Broadleaf Control Products**

For improved control on broadleaf weeds, HARASS can be tank mixed with other herbicides such as NUANCE, ACCURATE, "Widematch", "Aim", "Stinger", or "Curtail".

#### **With "Axial" brands**

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For improved control of wild oats and other grasses, HARASS may be tank mixed with "Axial" brand herbicides.

**With "Discover NG"**

HARASS can be tank mixed with "Discover NG" herbicide for improved control of weeds in spring wheat.

**With "Everest"**

HARASS can be tank mixed with "Everest" herbicide for improved control of weeds in spring wheat.

**With "Hoelon"**

A tank mix of "Hoelon" 3EC herbicide + HARASS can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat, and spring barley. The "Hoelon" 3EC herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre HARASS in spring and winter wheat.

A three-way tank mix of "Hoelon" 3EC herbicide + "Buctril" herbicide + HARASS can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat, and spring barley. The "Hoelon" 3EC herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre HARASS in winter wheat (up to 0.4 ounce per acre in spring wheat and spring barley). "Buctril" herbicide should be used at 1 pint per acre.

This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1 to 4 leaf stage. Reduced control of foxtail is likely when tank mixing "Hoelon" with HARASS. When foxtail is the major grass weed in the field, DO NOT tank mix "Hoelon" 3EC herbicide + HARASS – use sequential treatments.

**With Other Grass Control Products**

HARASS can be tankmixed with grass control products. Antagonism generally does not occur. However, Cheminova recommends that you first consult your state experiment station, university, extension agent or agricultural dealer as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of HARASS and the grass product to a small area.

**With Fungicides**

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

**With Insecticides**

HARASS 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 HARASS with organophosphate insecticides (such as NUFOS® or Lorsban) 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 HARASS 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 HARASS plus malathion because crop injury will result.**

**With Liquid Nitrogen Solution Fertilizer**

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing HARASS in fertilizer solution.

HARASS 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 HARASS 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 ½ pint – 1 quart per 100 gal 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, field advisor or Cheminova representative for a specific recommendation before adding an adjuvant to these tank mixes.

If 2,4-D or MCPA is included with HARASS and the fertilizer mixture, ester formulations tend to be more compatible (see manufacturer's label). Additional surfactant may not be needed when using HARASS in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or Cheminova 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 Cheminova 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.

### **SAFFLOWER**

HARASS may be used on safflower for selective postemergence control of certain broadleaf weeds in North Dakota, South Dakota, Nebraska, Montana (east of Route 87 or east of I-15), and Wyoming (east of I-25 or north of I-90). The degree and duration of control may depend on the weed spectrum and infestation intensity, the weed size at application and/or the environmental conditions at and following treatment.

#### **Use Rates**

For best results, apply 0.3 to 0.4 oz of HARASS per acre no later than 81 days prior to harvesting. Sequential treatments of HARASS may be made provided the total amount of HARASS applied to safflower does not exceed 0.4 oz per acre per crop season and the last application is made no later than 81 days prior to harvest.

#### **Spray Additives**

Applications of HARASS in safflower must include either nonionic surfactant at 0.25% v/v (1 qt/100 gal) or crop oil concentrate at 1% v/v (1 gal/100 gal) plus either ammonium nitrogen solution such as 28% UAN (2-4 qt/acre) or ammonium sulfate (2-4 lb/acre).

### **BURNDOWN, PRE-PLANT, POST HARVEST, AND FALLOW**

#### **APPLICATION TIMING**

##### **Pre-Plant Burndown**

For burndown of emerged weeds, broadcast applications of HARASS may be applied before or shortly after planting, but prior to emergence of wheat (including durum) barley, oat, triticale, soybeans and field corn. Apply HARASS as burndown treatment up to the day of planting grain sorghum and rice. Apply HARASS as a burndown treatment at least 7 days prior to planting cotton. Apply HARASS as a burndown treatment before planting any other crop (such as sugarbeets or canola) at least 45 days prior to planting.

**Cotton Precaution:** Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, and/or drought may weaken cotton seedlings and increase the possibility of crop injury. Cotton resumes normal growth once favorable growing conditions return.

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Do not make more than one pre-plant or at planting application of HARASS to soybeans, field corn, sorghum, cotton, or rice per growing season.

#### **Post Harvest**

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

#### **Fallow**

Apply HARASS in the spring through the 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 IN BURNDOWN**

##### **Pre-Plant Burndown**

Apply HARASS at 0.3 to 0.6 ounce per acre for control or partial control of the weeds listed below. Use 0.6 ounce per 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. In fields to be planted to cotton, apply HARASS at 0.2 to 0.33 ounce per acre.

Sequential burndown treatments of HARASS may also be made (such as 0.6 ounce per acre in the fall followed by 0.4 ounce per acre spring preplant) provided the total amount of HARASS applied during the fallow/preplant period does not exceed 1.0 ounce per acre.

HARASS should be applied in combination with other suitable registered pre-plant burndown herbicides (see the TANK MIXTURES IN BURNDOWN section of this label for additional information).

##### **Post Harvest**

Apply HARASS at 0.3 to 0.6 ounce per acre to crop stubble after harvest. Use the 0.6 ounce per 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). HARASS should be applied in combination with other suitable registered burndown herbicides (see the TANK MIXTURES IN BURNDOWN section of this label for additional information).

Sequential treatments of HARASS may also be made provided the total amount of HARASS applied during one fallow/pre-plant cropland season does not exceed 1.0 ounce per acre.

#### **Fallow**

Apply HARASS at 0.3 to 0.6 ounce per acre to fallow for control or partial control of the weeds listed below. Sequential treatments of HARASS may be made provided the total amount of HARASS applied during the fallow period does not exceed 1.0 ounce per acre.

#### **SPRAY ADDITIVES**

Applications of HARASS in burndown must include a spray adjuvant. See SPRAY ADJUVANTS.

#### **TANK MIXTURES IN BURNDOWN**

HARASS may be tank mixed with full or reduced rates of other products registered for use as a pre-plant burndown treatment, as a post harvest treatment to crop stubble, and/or as a fallow treatment. Read and follow all manufacturers' label instructions for any companion herbicides, fungicides, and/or insecticides. If those instructions conflict with this label, do not tank mix that product with HARASS. Read and follow all label instructions on timing, precautions, and warnings for any companion products before using these tank mixtures. Follow the most restrictive labeling.

##### **With 2,4-D and glyphosate**

HARASS may be tank mixed with 2,4-D and glyphosate herbicides for control of marestail in burndown applications. For best results, add the ester formulations of 2,4-D to the tank at ¼ to ¾ lb active ingredient such as (0.5 to 1.5 pints of a 4 lb/gal product) and add glyphosate at ½ lb active ingredient (such as 1 pint of a 4 lb/gal product). NIS or COC may be added to the mixture (see SPRAY ADJUVANTS). Higher rates of

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2,4-D or glyphosate may be used, but do not exceed the highest rate allowed by those respective labels.

### CEREALS AND BURNDOWN

#### Weeds Controlled

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

#### Weeds Partially Controlled\*\*

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

\* 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 or 0.6 ounces HARASS per acre and include a tank mix partner such as 2,4-D, MCPA, bromoxynil (such as "Buctril", "Bison", "Bronate", or "Bronate Advanced"), or dicamba (such as "Banvel"/"Clarity"), refer to the TANK MIXTURES section of this label.

† Naturally occurring resistant biotypes of kochia, prickly lettuce and Russian thistle are known to occur.

#### SPECIFIC WEED PROBLEMS

**Common chickweed and wild buckwheat:** For best results, apply a minimum of 0.5 ounce HARASS per 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 HARASS application.

**Kochia:** Naturally occurring biotypes resistant to HARASS are known to occur. For best results, use HARASS in a tank mix with "Starane", "Starane + Salvo", "Starane + Sword", dicamba (such as "Banvel/Clarity") and 2,4-D or MCPA (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate", or "Bronate Advanced").

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

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**Russian thistle, Prickly lettuce:** Naturally occurring biotypes of these weeds resistant to HARASS are known to occur. For best results, use HARASS in a tank mix with dicamba (such as "Banvel/Clarity") and 2,4-D or MCPA (ester or amine); or bromoxynil containing products (such as "Buctril", "Bison", "Bronate", or "Bronate Advanced").

HARASS 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 to 0.6 ounce HARASS per 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 rate of HARASS. 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 HARASS plus metribuzin may result in reduced control of wild garlic.

**Wild radish:** For best results, apply 0.5 to 0.6 ounce HARASS 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 (like "Express", "Beyond", "Pursuit", "Raptor") are under development. For best results, use HARASS in a tank mix with "Starane", "Starane + Salvo", "Starane + Sword", dicamba (such as "Banvel/Clarity") and 2,4-D or MCPA (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

#### **GRAZING**

##### **Barley, Oat, Soybeans, Triticale, and Wheat**

Allow at least 7 days between application and grazing of treated forage. In addition, allow at least 7 days between application and feeding of forage (green chop) from treated areas to livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock. Harvested straw may be used for bedding and/or feed.

##### **Field Corn**

Do not graze or feed forage or grain from treated field corn to livestock within 30 days of application.

#### **CROP ROTATION**

Soybeans, field corn, grain sorghum, rice, safflower, wheat, barley, oats, and triticale may be planted anytime after the application of HARASS. Cotton can be planted 7 days after application. Any other crop may be planted 45 days after the application of HARASS.

### **PRODUCT APPLICATION INFORMATION**

#### **Product Measurement**

HARASS is measured using the HARASS volumetric measuring cylinder. The degree of accuracy of this cylinder varies by  $\pm 7.5\%$ . For more precise measurement, use scales calibrated in ounces.

#### **SPRAY ADJUVANTS**

Include a spray adjuvant with applications of HARASS. 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 prior to using an adjuvant system. If another herbicide is tank mixed with HARASS, select adjuvants authorized for use with both products. Products must contain only EPA-



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exempt ingredients.

#### **Nonionic Surfactants (NIS)**

- Apply 0.06 to 0.50% volume/volume (1/2 pt to 4 pt per 100 gal of spray solution). For soybeans, apply 1 to 2 pints per 100 gallons of spray solution (use 1 pt under hot, humid conditions to reduce the potential for temporary crop injury).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

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

- Apply at 1% v/v (1 gal per 100 gal spray solution) or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local Cheminova product literature or service policies. For soybeans, apply 1/2 gallon per 100 gallons of spray solution (0.5% v/v).
- 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 adjuvant 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 and have been evaluated and approved by Cheminova product management. Consult separate Cheminova technical bulletins for detailed information before using adjuvant types not specified on this label.

#### **Ammonium Nitrogen Fertilizer**

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

#### **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 HARASS.

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of HARASS.
3. Continue agitation until the HARASS is fully dispersed, at least 5 minutes.
4. Once the HARASS is fully dispersed, maintain agitation and continue filling tank with water. HARASS should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners and antifoaming agents (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 HARASS.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply HARASS spray mixture within 24 hours of mixing to avoid product degradation.
8. If HARASS and a tank mix partner are to be applied in multiple loads, pre-slurry the HARASS in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the

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dissolution of the HARASS.

## **APPLICATION METHOD**

### **Ground Application**

For best performance, select nozzles and pressure that deliver MEDIUM spray droplets. 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 listed in manufacturers' specifications.

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

### **Corn And Soybeans**

#### **Broadcast Application**

- Use 10-25 gallons of water per acre.
- Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 15-25 gal per acre.
- Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl.

#### **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.

### **Cereals and Burndown**

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, 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 spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

Raindrop RA nozzles are not recommended for HARASS applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

### **Aerial 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 during a temperature inversion, when winds are gusty, or when conditions favor poor coverage and/or off-target spray movement.

In cereals and burndown 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 HARASS 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 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.

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

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using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to the SPRAY DRIFT MANAGEMENT section of this label.

Continuous agitation may be required to keep tank-mix partners in solution or suspension. Refer to tank-mix partner labels for additional information.

#### **Before Spraying HARASS**

The spray equipment must be cleaned before HARASS 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 HARASS section of this label.

#### **At the End of the Day**

It is recommended that during periods when multiple loads of HARASS 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 HARASS AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY, OATS, TRITICALE, FIELD CORN, SAFFLOWER AND SOYBEANS**

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of HARASS as follows:

1. Empty the tank and drain the sump completely. Remove any contamination on the outside of the spraying equipment by washing with clean water.
2. Spray the tank walls (including the lid) with clean water using a minimum volume of 10% of the tank volume. Add household ammonia at a solution rate of 1 gal/100 gal water or other similarly approved cleaner to the tank. Circulate the water through the lines, including all by-pass lines, for at least two minutes. Flush the boom well and empty the sprayer. Completely drain the sump.
3. Repeat step 2. For this rinse, the addition of household ammonia or other cleaner is not required.
4. Remove the strainers, nozzles, tips and screens and clean separately in a bucket containing water and ammonia solution.

If only ammonia is used as a cleaner, the rinsate solution may be applied 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.

#### **Notes:**

1. Always start with a clean spray tank.
2. Steam-cleaning aerial spray tanks is recommended to facilitate the removal of any caked deposits.
3. When HARASS 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 labels.

#### **SPRAY DRIFT MANAGEMENT**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### **Importance of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator

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balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

#### **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 – Aircraft**

- **Number of Nozzles** – Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** – Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** – The boom length should not exceed  $\frac{1}{4}$  of the wing or rotor length – longer booms increase drift potential.
- **Application Height** – Application more than 10 ft. above the canopy increases the potential for spray drift.

#### **Boom Height**

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **Wind**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **Temperature and Humidity**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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)

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indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

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### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

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Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### **INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risks shall be assumed by Buyer and User. Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

### **LIMITATION OF REMEDIES**

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to one of the following, at Cheminova's election:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, in no case shall Cheminova be liable for consequential, incidental, or special damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the Seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.