

67760-105

3/25/2010

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Registration Division (7505P)  
 Ariel Rios Building  
 1200 Pennsylvania Ave., NW  
 Washington, D.C. 20460

Reg. Number:  
 67760-105

Date of Issuance:  
 MAR 25 2010

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:  
 Unconditional

Name of Pesticide Product:  
 Solida Herbicide

Name and Address of Registrant (include ZIP Code):

Cheminova, Inc.  
 PO Box 110566  
 One Park Drive, Suite 150  
 Research Triangle Park, NC 27709

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

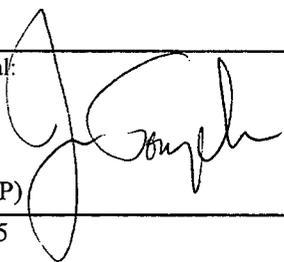
On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect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

This product is conditionally registered in accordance with FIFRA sec. 3(c)(5) provided that you:

- 1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data. If required, failure to submit acceptable data to fulfill these requirements may result in registration cancellation in accordance with FIFRA section 6(e).
- 2) Assure that the maximum application restrictions do not exceed the highest currently registered rate for each appropriate application site.
- 3) Add the phrase "EPA Reg. No. 67760-105" to the labeling and assure that the EPA Establishment Number and Net Contents are also on the label.
- 4) Generate one-year storage stability (830.6317) and corrosion characteristics (830.6320) data on the product. The observations should be made at 0, 3, 6, 9, and 12 month intervals. The results must be submitted to the Agency in electronic and hard copy format within 12 months of the date on this notice.

**SEE NEXT PAGE FOR ADDITIONAL COMMENTS**

Signature of Approving Official:  
 James Tompkins  
 Product Manager 25  
 Herbicide Branch  
 Registration Division (7505P)



Date:  
 MAR 25 2010

5) Change “WPS USES: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard [40CFR Part 170] must wear:....” on page 2 under PERSONAL PROTECTIVE EQUIPMENT to “Applicators and other handlers must wear: ....”

6) Note: The IF IN EYES statement in the First Aid box on page 2 is not required and is considered optional. The statement may either remain on the label as additional safety information or it may be removed.

7) The statement under the Hazards to Humans and Domestic Animals should read as follows:

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

8) Per the Label Review Manual, replace the header “USER SAFETY INSTRUCTIONS” on page 2 with “USER SAFETY RECOMMENDATIONS”.

9) Replace the “GENERAL INFORMATION” header on page 3 with “PRODUCT INFORMATION”.

10) Add the following ground water advisory statement to the Environmental Hazards section of the label for **all end-use products containing rimsulfuron**:

“**Ground Water Advisory:** This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.”

11) Add the following surface water advisory statement to the Environmental Hazards section of the label for **all end-use products containing rimsulfuron**:

“**Surface Water Advisory:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks 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 rimsulfuron from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.”

12) Per the Label Review Manual and PR Notice 2007-4, each container cleaning statement must be followed by a disposal/handling statement. The following changes must be made to the Container Handling portion of the Storage and Disposal section on page 4 of the label:

The container cleaning/rinsing instructions for nonrefillable containers less than 5 gallons must read:

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“Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank 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. **Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.**”

The container cleaning/rinsing instructions for nonrefillable containers greater than 5 gallons should read:

“Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or 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 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 back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.**”

13) In the Agricultural Use box on page 4, the phrase “chemical resistant gloves made of any waterproof material” must be replaced with “chemical resistant gloves (such as Natural Rubber, Selection Category A).”

14) Change “BROADCAST APPLICATION” to “GROUND APPLICATION” on page 9.

15) Delete the phrase “For best performance” from the third sentence under GROUND APPLICATION [formerly BROADCAST APPLICATION] on page 9 for the sentence to read “Select nozzles and pressure that deliver MEDIUM spray droplets....”

16) Revise the second sentence under AERIAL APPLICATION to read “Use MEDIUM or COARSE nozzles that will provide optimum spray distribution and maximum coverage at a minimum of 5 GPA.”

17) Under the AERIAL APPLICATION header on page 9, revise the third sentence to read “Do not apply during a temperature inversion, when wind speed is less than 3 mph or above 10 mph, or when conditions favor poor coverage and/or off-target spray drift.”

18) Change the phrase at the bottom of page 9 under the SOLIDA HERBICIDE ROTATIONAL CROP GUIDELINES replacing “should” with “must”. The statement should read “The following rotational interval **must** be observed when using SOLIDA Herbicide”.

SEE NEXT PAGE

19) Change the term “should” to “must” in the footnote statement for 1 oz. Maximum Use Rate chart on page 10 for the statement to read “In all other areas, the rotational intervals **must** be extended to 18 months if drought conditions prevail after application and before the rotational crop....”

20) Change the term “should” to “must” in the footnote of the 2 oz. Maximum Use Rate chart on page 10 for the statement to read “The rotational interval **must** be extended by 18 months if drought conditions after application and before the rotational crop....”

21) Under the “RESISTANCE” header on page 12, replace the term “recommendations” with “usage” for the last sentence in the third paragraph to read “Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide **usage** available in your area.

22) Under the “POSTEMERGENCE FOLLOWED BY POSTEMERGENCY” header at the bottom of page 27, add “per” between “acre” and “year” for the statement to read “Note: For sequential applications the total amount of SOLIDA Herbicide cannot exceed 4.0 oz product per acre **per** year on a broadcast basis.”

23) Under the “RANGELAND RESTORATION WEST OF THE MISSISSIPPI RIVER” header on page 34, replace “GENERAL INFORMATION” with “PRODUCT INFORMATION”.

24) Note: Under the “RESTORATION PROGRAM” header at the top of page 35, the first sentence reads “An effective restoration program may include one or more of the following steps (A through F)....”. Item “F” is missing. As appropriate, you may either change “(A through F)” to read “(A through E)” or you may change the last bulleted item to “F”.

25) Change the sentence under WIND on page 42 from “AVOID APPLICATION DURING GUSTY OR WINDLESS CONDITIONS” to “Do not apply when wind speed is less than 3 mph or above 10 mph.”

26) Under the Limitation of Remedies statement on page 45, add “To the extent consistent with applicable law” for the last two sentences in the second to last paragraph to read as follows:

**“To the extent consistent with applicable law, Cheminova shall not be liable for losses or damages resulting from handling or use of this product unless Cheminova is properly notified of such loss or damage in writing. To the extent consistent with applicable law, in no case shall Cheminova be liable for consequential or incidental damages or losses.”**

27) NOTE: While no additional data is being requested at this time, marketing claims made on the pesticide label must be substantiated by data maintained in your files. If data supporting marketing claims made on the product label is not available then those claims must be removed.

28) NOTE: Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or

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EPA Registration #: 67760-105  
Conditional Registration: Solida Herbicide  
Registrant: Cheminova, Inc.

misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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# SOLIDA

## Herbicide

Water Soluble Granule

For Weed Control in Field Corn, Citrus Fruit, Stone Fruit, Tree Nuts, Pome Fruit, Grapes, Potatoes, Potatoes Grown for Seed, Field-Grown Tomatoes, Rangeland Restoration, Industrial Sites, Roadsides, Highway Medians, and Utility Substations

**ACTIVE INGREDIENT:**

Rimsulfuron

N-((4,6-dimethoxypyrimidin-2-yl)aminocarbonyl)-3-(ethylsulfonyl)-2-pyridinesulfonamide..... 25.0%

**OTHER INGREDIENTS** ..... 75.0%

**TOTAL** ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

**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 "DISCLAIMER" before buying or using.  
If terms are not acceptable, return product unopened without delay.

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**MAR 25 2010**

EPA Reg. No.

EPA Est. No.

**NET CONTENTS:**

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

67760-105

**Cheminova, Inc.**  
**One Park Drive, Suite 150**  
**P.O. Box 110566**  
**Research Triangle Park, NC 27709**

70951

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

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

**FIRST AID**

**IF ON SKIN**

**OR CLOTHING:** Take off contaminated clothing. Rinse skin with plenty of water for 15 to 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 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:**

Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some 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 selection chart.

**WPS USES: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard [40CFR Part 170] must wear:** long sleeved shirt and long pants, shoes plus socks, and chemical resistant gloves from category A such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber ≥14 mils.

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 INSTRUCTIONS:**

**Users should:** Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet

**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.

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## 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.

### PRODUCT 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  $\frac{1}{4}$  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.

#### **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  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Repeat this procedure two more times.

## GENERAL INFORMATION

SOLIDA Herbicide must be used only in accordance with instructions on this label or in separate published labeling. Cheminova will not be responsible for losses or damage resulting from the use of this product in any manner not specifically instructed by Cheminova. SOLIDA Herbicide is a water-soluble granule formulation that selectively controls certain grass and broadleaf weeds in pome fruit, citrus fruit, tree nut, stone fruit, and grape crops which have been established for at least one full growing season. SOLIDA Herbicide also selectively controls certain grass and broadleaf weeds in potatoes, potatoes grown for seed, and field-grown tomatoes (direct-seeded and transplant). SOLIDA Herbicide can be used for restoration of rangeland infested with invasive weed species and along roadsides and highway medians, at industrial plant sites, and at utility substations.

The best control is obtained when SOLIDA Herbicide is applied to young, actively growing weeds. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment

SOLIDA Herbicide is registered for use in most states. Check with your state extension service or Department of Agriculture before use, to be certain SOLIDA Herbicide is registered in your state.

## TANK MIXTURES

To broaden the weed control spectrum and/or extend the residual effectiveness of SOLIDA Herbicide, SOLIDA Herbicide may be tank mixed with other registered herbicides affecting a different site of action (mode of action) and/or adjuvants registered for use on the crops listed on SOLIDA Herbicide labeling. Refer to the label(s) of the tank mix partners) for any additional use instructions or restrictions. Do not use SOLIDA Herbicide in a spray solution with additives that buffer the pH to below 4.0 or above 8.0, as degradation of SOLIDA Herbicide may occur.

**DIRECTIONS FOR USE**

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and 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, shoes plus socks, and chemical resistant gloves made of any waterproof material.

**BURNDOWN AND RESIDUAL CONTROL OF CERTAIN ANNUAL GRASS AND BROADLEAF WEEDS WHEN APPLIED PREEMERGENCE AND POSTEMERGENCE TO FIELD CORN**

SOLIDA Herbicide is a selective herbicide for burndown and residual control of certain annual grass and broadleaf weeds when applied preemergence and postemergence to field corn. SOLIDA Herbicide may be applied to "Roundup Ready" corn in tank mix combinations with glyphosate herbicides such as Glyphos® or Glyphos® XTRA to add residual control for later emerging weeds. Residual weed control is dependent on rainfall or sprinkler irrigation for herbicide activation.

Do not apply to field corn grown for seed, to popcorn or to sweet corn. Do not apply preemergence to coarse-textured soils (sand, loamy sand or sandy loam) with less than 1% organic matter. Do not apply by air in the State of New York.

Apply SOLIDA Herbicide to field corn hybrids with a relative maturity (RM) of 77 days or more, including "food grade" (yellow dent, hard endosperm), waxy and High-Oil corn. Not all field corn hybrids of less than 77 RM, not all white corn hybrids nor 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 SOLIDA Herbicide on these types of corn is the responsibility of the user. Consult with your seed supplier before applying SOLIDA Herbicide to any of these corn types. Seed company publications indicate "Warning", "Crop Response Warning", or "Sensitive" notations for the use of some ALS herbicides on corn hybrids of 77 RM or higher. As noted in the seed company publications, Cheminova sulfonylurea herbicides such as SOLIDA Herbicide should be used with caution on these hybrids.

**APPLICATION INFORMATION**

***When To Apply to Field Corn***

Do not apply more than a total of 2.0 oz SOLIDA Herbicide (or 0.5 oz active ingredient rimsulfuron) during the crop year. This includes combinations of preemergence and postemergence applications of SOLIDA Herbicide.

**FALLOW**

***Use Rates***

Apply SOLIDA Herbicide at 1 to 2 ounces per acre.

***Application Timing***

SOLIDA Herbicide may be used as a fallow treatment, in the spring or fall when the majority of weeds have emerged and are actively growing. Field corn may be planted to this treated area at any time.

***Tank Mixtures in Fallow***

SOLIDA Herbicide may be used as a fallow treatment and may be tank mixed with other herbicides that are registered for use in fallow. Read and follow all instructions on this label and the labels of any tank mix partner before using any other herbicide in mixtures with SOLIDA Herbicide. If the recommendations on the tank mix partner label conflict with this SOLIDA Herbicide label, do not use in a tank mixture with SOLIDA Herbicide.

**FIELD CORN**

***When to Apply – Preemergence to the Crop***

SOLIDA Herbicide may be applied preemergence or preplant to corn. Applications of SOLIDA Herbicide made before weed emergence will provide residual control of labeled weeds. Control of emerged weeds will require the addition of spray adjuvants as noted below.

***Preemergence Rates***

SOLIDA Herbicide may be applied at 0.5-2.0 oz. product before corn emergence. See cumulative rimsulfuron rate limitations noted above. Cheminova specifies a rate of 1-1.5 oz./acre for most applications.

***When to Apply – Postemergence to the Crop***

Apply SOLIDA Herbicide to corn that is up to 12 inches tall. Do not apply to corn taller than 12 inches or exhibiting 6 or more leaf collars, whichever is more restrictive. Applications of SOLIDA Herbicide made after weed emergence will provide contact control of labeled weeds as well as limited residual control of later emergence.

***Postemergence Rates***

SOLIDA Herbicide may be applied at 0.5-2 oz/acre as a postemergence broadcast application. Cheminova specifies a use rate of 1 oz./acre for most applications.

***Timing to Weeds***

- Tank mixtures of SOLIDA Herbicide with glyphosate or glufosinate herbicides may be applied after weeds emerge but before they reach the maximum size listed on the glyphosate and glufosinate herbicide labels.
- Adequate soil moisture is required for optimum activity. Rainfall within 5 to 7 days after application will enhance SOLIDA Herbicide residual activity. If activating rainfall or

sprinkler irrigation (>0.5 inch) is not received within 5-7 days after application, follow with a cultivation or with a sequential application of Nic-It™ Herbicide, if needed.

- Do not apply more than 1 ounce of SOLIDA Herbicide postemergence or 1.5 ounce preemergence unless instructed to do so by Cheminova product labeling. Do not apply more than 2 ounces of SOLIDA Herbicide in a single use season.

**SPRAY ADJUVANTS**

For control of emerged weeds, application of SOLIDA Herbicide must include a nonionic surfactant and an ammonium nitrogen fertilizer. If applied in a tank mix combination with a glyphosate or glufosinate herbicide that contains a built-in adjuvant system such as Glyphos® XTRA, or Ignite®, no additional surfactant needs to be added. Crop oil concentrate may be used in place of nonionic surfactant for burndown applications of SOLIDA Herbicide made before crop emergence. Products must contain only EPA-exempt ingredients (40 CFR 1001).

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

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

**Nonionic Surfactant (NIS)**

- Apply at 0.25% v/v (1 qt per 100 gal spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

**Ammonium Nitrogen Fertilizer**

- Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN) such as 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS).
- Do not use liquid nitrogen fertilizer as the total carrier solution after crop emergence.

**Special Adjuvant Types**

- Combination adjuvant products may be used at doses that provide the required amount of NIS and ammonium nitrogen fertilizer. Consult product labeling for use rates and restrictions.
- Do not use any other adjuvant rates or mixtures with SOLIDA Herbicide unless instructed to do so on Cheminova labeling.

**WEEDS CONTROLLED/SUPPRESSED**

***Preemergence Control***

***Grass weeds***

- Barnyardgrass
- Bluegrass, annual\*
- Crabgrass, large\*
- Foxtail (bristly, giant, green, yellow)
- Panicum, fall\*
- Signalgrass, broadleaf\*
- Wheat, Volunteer
- Wild Oat\*

\*partial control/suppression

***Broadleaf weeds***

- Carpetweed\*
- Chamomile, false
- Cocklebur\*
- Filaree, Redstem
- Henbit
- Jimsonweed\*
- Kochia (ALS-sensitive)
- Lambsquarters, common
- Morningglory, ivyleaf\*
- Mustard (birdsrape, black)
- Nightshade\* (hairy, black)
- Palmer, amaranth\*
- Pigweed (prostrate, redroot, smooth)

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Purslane, common  
Ragweed, common\*  
Russian thistle, seedling\*  
Smartweed, Pennsylvania\*  
Velvetleaf\*  
\*partial control/suppression

## POSTEMERGENCE CONTROL

### **Grass weeds (1-2")**

Barley, volunteer  
Barnyardgrass  
Bluegrass, annual  
Crabgrass, large (1/2")  
Cupgrass, woolly (1")  
Foxtail (bristly, giant, green, yellow)  
Johnsongrass, seedling\*  
Millet, Wild Proso\*  
Panicum, fall  
Quackgrass\*  
Ryegrass, Italian\*  
Shattercane (4")  
Signalgrass, broadleaf\*  
Stinkgrass\*  
Wheat, volunteer  
Wild oat\*  
Yellow nutsedge\*

\*partial control/suppression

### **Broadleaf weeds (1-3")**

Alfalfa, volunteer^  
Canada, thistle\*  
Chickweed, common  
Cocklebur\*  
Dandelion (6" diameter)  
Henbit  
Kochia  
Lambsquarters, common\*  
Morningglory, ivyleaf\*  
Mustard (birdsrape, black, wild)  
Nightshade, hairy\*  
Pigweed, (prostrate, redroot, smooth)  
Purslane, common\*  
Ragweed, common\*  
Shepherd's purse  
Smartweed, Pennsylvania\*  
Wild radish  
Velvetleaf\*

\*partial control/suppression

^Except in California

## TANK MIXTURES

SOLIDA Herbicide may be tank mixed with full or reduced rates of other products registered for use in corn. Read and follow all manufacturers' label instructions for the companion herbicide. If these instructions conflict with this SOLIDA Herbicide label, do not use a tank mixture with SOLIDA Herbicide.

### **Preemergence to the Crop**

#### **For Additional Control of Grasses and Broadleaves**

SOLIDA Herbicide may be tank mixed with full or reduced rates of preemergence grass and broadleaf herbicides such as atrazine, "CINCH", "CINCH ATZ", "Harness", "Outlook", "Balance PRO", and "Lumax" to provide added residual activity or burndown activity on emerged weeds. Consult tank mix partner labeling for rate and soil-type restrictions.

### **Postemergence to the Crop**

#### **Tank Mixtures with Glyphosate**

SOLIDA Herbicide may be tank mixed with glyphosate herbicides if applications are made to corn hybrids containing the "Roundup Ready" gene. Consult with your seed supplier to confirm the corn hybrid is "Roundup Ready" before making any herbicide application containing glyphosate herbicides.

When used in a tank mixture with glyphosate herbicides, 1 oz. SOLIDA Herbicide will deliver improved burndown and/or residual activity on the following weeds, as compared to glyphosate used alone:

Alfalfa, volunteer\*  
Barley, volunteer  
Barnyardgrass

Johnsongrass, seedling  
Kochia  
Lambsquarters, common

Sandbur (field, longspine)  
Shepherd's purse  
Signalgrass, broadleaf

Bluegrass, annual  
 Canada thistle  
 Chamomile, false  
 Chickweed, common  
 Cocklebur  
 Crabgrass  
 Dandelion (6" diameter)  
 Filaree, redstem  
 Foxtail (bristly, giant, green, yellow)  
 Henbit

Millet, wild proso  
 Morningglory, ivyleaf  
 Mustard (birdsrape, black, wild)  
 Nightshade, hairy  
 Panicum, fall  
 Pigweed (prostrate, redroot, smooth)  
 Purslane, common  
 Quackgrass  
 Ragweed, common  
 Ryegrass, Italian

Smartweed, Pennsylvania  
 Stinkgrass  
 Velvetleaf  
 Wheat, volunteer  
 Wild buckwheat  
 Wild oat  
 Wild radish  
 Yellow nutsedge

\*Except in California

**Tank Mixtures with Glufosinate**

SOLIDA Herbicide may be tank mixed with glufosinate herbicides if applications are made to corn hybrids containing the "Liberty Link" gene. Consult with your seed supplier to confirm the corn hybrid is "Liberty Link" before applying any herbicide containing glufosinate.

When used in tank mixtures with glufosinate herbicide, 0.75 oz. SOLIDA Herbicide will deliver improved burndown and/or limited residual activity on the following weeds, as compared to glufosinate used alone:

- Velvetleaf
- Pigweed, redroot
- Lambsquarters, common
- Foxtail (giant, yellow)

**For Additional Control of Kochia**

SOLIDA Herbicide may be tank mixed with 1/3 to 2/3 pint per acre of "Starane" for improved control of kochia. Use higher rates when weed infestation is heavy. Refer to the specific "Starane" label for application timing and restrictions. SOLIDA Herbicide may be tank mixed with "Starane" and additional 1/16 to 1/8 lb active ingredient dicamba (such as 2-4 fluid oz. of "Banvel" or "Clarity") for broader spectrum weed control.

**For Additional Control of Broadleaf Weeds**

SOLIDA Herbicide may be tank mixed with 2 pints per acre of "Lumax" or 2 1/3 pints per acre of "Lexar" for improved burndown or residual control of several broadleaf weeds including common waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of SOLIDA Herbicide plus "Lumax" or "Lexar", the use of a nonionic surfactant is suggested. Refer to "Lumax" or "Lexar" labels for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

**For Additional Control of Broadleaf Weeds**

SOLIDA Herbicide may be tank mixed with 0.5 to 0.75 fluid ounces per acre of "Impact" plus atrazine at 0.375 to 1.5 pounds active per acre for improved burndown or residual control of several broadleaf weeds including common waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of SOLIDA Herbicide plus "Impact" at 0.5 fluid ounces per acre, the use of methylated seed oil is suggested. Refer to "Impact" label for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

**FOR ALL APPLICATION TIMINGS**

- Do not apply SOLIDA Herbicide tank mixtures with glyphosate herbicides to conventional corn hybrids that do not contain the "Roundup Ready" trait.
- Do not apply SOLIDA Herbicide tank mixtures with glufosinate herbicides to conventional corn hybrids that do not contain the "Liberty Link" trait.
- To avoid crop injury or antagonism, apply the products indicated below at least seven days before or three days after the application of SOLIDA Herbicide. Do not tank mix SOLIDA

Herbicide with foliar-applied organophosphate insecticides such as Nufos<sup>®</sup>, parathion, etc., as severe crop injury may occur.

- Do not exceed labeled application rates. Do not tank mix SOLIDA Herbicide with other products that contain the same active ingredients as SOLIDA Herbicide (rimsulfuron) unless the label of either tank mix partner specifies the maximum rate that may be used.

Other than the exceptions noted, and in addition to the tank mix partners indicated in the preemergence and postemergence sections above, SOLIDA Herbicide may be applied in tank mixture with glyphosate plus other products registered for use in field corn. SOLIDA Herbicide may be applied in tank mix combinations with full or reduced rates of other products provided:

- The tank mix product is labeled for the same timing, method of application, adjuvants, and use restrictions as SOLIDA Herbicide and other products used in the tank mixture.
- The tank mixture is not specifically prohibited on the label of the tank mix product.

**Tank Mixing Precautions:**

- Weed control and crop response with tank mixtures not specified in this label are the responsibility of the user and manufacturer of the tank mix product.
- Read and follow all applicable use directions, precautions, and limitations specified on the respective product labels.
- A corn plant's predisposition to develop fused tissue emerging from the whorl (rattail) after the V-11 stage may increase when a product containing dicamba (i.e., "Clarity", "Marksman") is applied to small corn under early stressful conditions. Be aware of this when applying tank mixes with dicamba to small corn (V-3 stage or smaller) under stressful conditions. See ENVIRONMENTAL CONDITIONS for a description of these stressful conditions.

**CHEMIGATION**

Do not apply SOLIDA Herbicide through any type of irrigation system.

**BROADCAST APPLICATION**

Use a minimum of 15 gallons of water per acre (GPA) to ensure thorough coverage of weeds and the best performance. Use a minimum of 10 GPA for light, scattered stands of weeds. For best performance, select nozzles and pressure that deliver MEDIUM spray droplets, as indicated, for example, by ASAE Standard S572. 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 suggested in manufacturer's specifications. 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.

**AERIAL APPLICATION**

Aerial application is not permitted in the State of New York. Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at a minimum of 5 GPA. Do not apply during a temperature inversion, when winds are gusty, or when conditions favor poor coverage and/or off-target spray movement.

**SOLIDA HERBICIDE ROTATIONAL CROP GUIDELINES**

The following rotational intervals should be observed when using SOLIDA Herbicide:

<b>1 OZ. MAXIMUM USE RATE</b>	
<b>Rotation Crop</b>	<b>Interval (months)</b>
Corn, field	Anytime
Potatoes	Anytime

STS Soybeans***	1
Tomato	1
Cereals, Winter (wheat)	4
Cereals, Spring (wheat, oats, barley)	9
Alfalfa†	10
Cotton	1
Canola†	10
Cucumber	10
Flax	10
Peas	10
Rice**	10
Red Clover†	10
Sorghum†	10
Corn, pop or sweet	10
Soybeans	10
Snap beans, dry beans	10
Sunflower	10
Sugarbeets†	10
Crops Not Listed	18

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

†18 months in the Red River Valley region of ND and MN. In all other areas, the rotation intervals should be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

\*\*For soils with pH less than 6.5

\*\*\*Sulfonylurea Tolerant Soybean

<b>2 OZ. MAXIMUM USE RATE</b>	
<b>Rotation Crop</b>	<b>Interval (months)</b>
Corn, field	Anytime
Potatoes	Anytime
STS Soybeans***	4
Tomato	1
Cereals, Winter (wheat)	4
Cereals, Spring (wheat, oats, barley)	9
Corn, pop or sweet	10
Cotton†	10
Cucumber	10
Flax	10
Soybeans	10
Snap beans, dry beans	10
Sunflower	10
Crops Not Listed	18

†The rotation interval should be extended to 18 months if drought conditions prevail after application and before the rotation crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

\*\*\*Sulfonylurea Tolerant Soybean

**ROTATIONAL CROP GUIDELINES FOR CERTAIN AREAS OF OREGON AND WASHINGTON**

Field corn grown under sprinkler irrigation with a minimum of 18" of water per season. This rotation interval is for sand, loamy sand, and sandy loam soils having not more than 1.5% organic matter where a minimum of 18" of sprinkler irrigation is used on the previous corn crop. Injury to the rotated crop may occur if less than 18" of irrigation is used on the previous field corn crop. For tank mixtures, follow the most restrictive rotational crop guideline.

The following revised rotational intervals should be observed when using SOLIDA Herbicide on field corn:

<b>Rotation Crop</b>	<b>Interval (months)</b>
Alfalfa	4
Carrots	10
Cucumber	10
Grass, pasture, hay, seed	4
Mint	4
Onions	10
Peas	8

**For Rotation to Alfalfa:** SOLIDA Herbicide in field corn not to exceed 1 ounce per use season in Adams, Grant, Douglas and Lincoln counties of Washington, and SOLIDA Herbicide in field corn not to exceed 1.5 ounces per acre per use season in Benton, Franklin, Klickitat, Walla Walla and Yakima counties in Washington and Morrow and Umatilla counties in Oregon.

**For Rotation to Onions and Carrots:** SOLIDA Herbicide in field corn not to exceed 1.5 ounces per acre per use season in Adams, Grant, Douglas and Lincoln counties of Washington, and SOLIDA Herbicide in field corn not to exceed 2.0 ounces per acre per season in Benton, Franklin, Klickitat, Walla Walla and Yakima counties in Washington and Morrow and Umatilla counties in Oregon.

**For Rotation to Grass Crops Grown for Seed, Hay or Pasture:** SOLIDA Herbicide in field corn not to exceed 1.5 ounces per acre per use season in Adams, Grant, Douglas and Lincoln counties of Washington, and SOLIDA Herbicide in field corn not to exceed 2.0 ounces per acre per use season in Benton, Franklin, Klickitat, Walla Walla and Yakima counties in Washington and Morrow and Umatilla counties in Oregon.

**For Rotation to Peas and Mints:** SOLIDA Herbicide in field corn not to exceed 1.5 ounces per acre per use season in all areas.

**PRECAUTION**

SOLIDA Herbicide should not be used in a tankmix or sequential application program with other soil residual ALS-inhibiting herbicides in field corn as the combined effects of these herbicides on the planting of subsequent crops have not been thoroughly investigated and injury to the following rotation crop may occur.

**SPRAYER CLEANUP**

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

**AIR-ASSISTED (AIR BLAST) FIELD CROP SPRAYERS**

Air-assisted field crop sprayers carry droplets to the target via a downward-directed airstream. 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 and is configured properly, and that drift is not occurring.

**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 dormant 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.

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 representative for specific alternative cultural practices or herbicide recommendations available in your area.

**SOIL INSECTICIDE INTERACTION INFORMATION**

SOLIDA 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.

SOLIDA Herbicide may be applied to corn previously treated with "Fortress", "Aztec", or "Force" insecticides or nonorganophosphate (OP) soil insecticides regardless of soil type.

- Do not apply SOLIDA Herbicide within 60 days of crop emergence where an organophosphate insecticide (such as "Counter") was applied as in-furrow treatment since crop injury may occur. Also, allow at least 60 days between a preemergence or preplant application of SOLIDA Herbicide and application of an organophosphate insecticide since crop injury may result.
- Do not apply SOLIDA Herbicide to corn previously treated with "Counter" 15G or to corn treated with "Counter" 20CR in-furrow or over the row at cultivation.
- Applications of SOLIDA Herbicide to corn previously treated with "Counter" 20CR, "Thimet", or Nufos® may cause unacceptable crop injury, especially in soils of less than 4% organic matter.

**CITRUS FRUIT, STONE FRUIT, TREE NUTS, POME FRUIT, GRAPES**

**APPLICATION INFORMATION**

SOLIDA Herbicide should be applied as a uniform broadcast application to the orchard or vineyard floor or as a uniform band application directed at the base of the trunk or vine.

For broadcast applications, make a single application of SOLIDA Herbicide at 4 ounces per acre per year. For improved weed management, SOLIDA Herbicide should be applied in tank mixture with other registered preemergence herbicides.

When applied as a banded treatment (50% band or less), SOLIDA Herbicide may be applied twice a year. However, do not apply more than 4 ounces per acre on a broadcast application basis per year. Unless otherwise specified on this label, allow a minimum of 30 days between

applications.

To help ensure uniform coverage, use a minimum of 10 gallons of spray solution per acre. Nozzle selection should meet manufacturer's spray volume and pressure instructions for preemergence or postemergence herbicide applications.

Do not apply SOLIDA Herbicide by air. Use ground application equipment only.

Apply only to crops that have been established for one full growing season and are in good health and vigor.

Best results are obtained when the soil is moist at the time of application, and ½ inch of rainfall or sprinkler irrigation occurs within 2 weeks after application. Time the application(s) to take advantage of normal rainfall patterns and cool temperatures. Moisture for activation should occur within 2-3 weeks after application.

SOLIDA Herbicide may also be applied by certain chemigation methods, such as micro-sprinkler. However, do not apply by overhead, flood, or drip irrigation.

Avoid direct or indirect spray contact with crop foliage or fruit, except undesirable suckers.

Do not use SOLIDA Herbicide in a spray solution with a pH of below 4.0 or above 8.0 with spray additives that buffer the pH to below 4.0 or above 8.0, since degradation of SOLIDA Herbicide may occur.

CROP GROUP/CROP	PRE-HARVEST INTERVAL (PHI)
<b>Citrus Fruit:</b> Callomondin; Citrus citron; Citrus hybrids (includes chironja, tangelo, tangor); Grapefruit Kumquat; Lemon; Lime; Mandarin (tangerine); Orange (sweet and sour); Pummelo; Satsuma mandarin	3 days
<b>Pome Fruit:</b> Apple; Crabapple; Loquat; Mayhaw; Pear; Oriental pear; Quince	7 days
<b>Tree Nuts:</b> Almond; Beech nut; Brazil nut; Butternut; Cashew; Chestnut; Hickory nut; Macadamia nut (bush nut); Pecan; Pistachio; Walnut (black and English)	14 days
<b>Stone Fruit:</b> Apricot; Cherry (sweet and tart); Nectarine; Peach; Plum; Plum (Chickasaw); Plum (Damson); Plum (Japanese); Plumcot; Prune (fresh)	14 days
<b>Grapes</b>	14 days

**WEEDS CONTROLLED**

Susceptible weeds are controlled for 60 to 90 days after application of SOLIDA Herbicide. Rainfall or irrigation is needed for herbicide activation. Length of control is a function of moisture for activation, soil temperature, soil texture, and amount of moisture after application.

When weeds are present at application, include a labeled burndown herbicide, such as glyphosate (Glyphos X-TRA or generic glyphosate), paraquat, or glufosinate, with an appropriate adjuvant. SOLIDA Herbicide will help provide postemergence control of the weeds listed in this label. For best results, make postemergence applications to young, actively growing weeds and include a spray adjuvant.

Residual weed control may be reduced when SOLIDA Herbicide is applied where heavy crop trash and/or weed residue exists.

Weed control may also be reduced when applications of SOLIDA Herbicide are made to weeds under stress from drought, excessive water, temperature extremes, disease, or low humidity.

## PREEMERGENCE WEED CONTROL

### Grass Weeds

Barnyardgrass	<i>Echinochloa crus-galli</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria pumila</i>
Quackgrass	<i>Elymus repens</i>
Wheat, Volunteer	<i>Triticum aestivum</i>

### Broadleaf Weeds

Chamomile, False	<i>Matricaria maritima</i>
Dandelion, common (seedling)	<i>Taraxacum officinale</i>
Filaree, Redstem	<i>Erodium cicutarium</i>
Fleabane, hairy	<i>Conyza bonariensis</i>
Groundsel, common	<i>Senecio vulgaris</i>
Henbit	<i>Lamium amplexicaule</i>
Kochia	<i>Kochia scoparia</i>
Mallow, common	<i>Malva neglecta</i>
Marestail/horseweed	<i>Conyza canadensis</i>
Mustard, Birdrape	<i>Brassica rapa</i>
Mustard, Black	<i>Brassica nigra</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, Common	<i>Portulaca oleracea</i>
Spurge, prostrate	<i>Chamaesyce prostrata</i>
Spurge, spotted	<i>Chamaesyce maculata</i>

## PREEMERGENCE PARTIAL WEED CONTROL†

### Grass Weeds

Wild Oat	<i>Avena fatua</i>
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### Broadleaf Weeds/Sedges

Cocklebur	<i>Xanthium spp.</i>
Dandelion, common (established)	<i>Taraxacum officinale</i>
Lambsquarters, common	<i>Chenopodium album</i>
Nightshade, Black	<i>Solanum nigrum</i>
Nightshade, Hairy	<i>Solanum sarrachoides</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>

Pigweed, Prostrate  
Ragweed, Common  
Velvetleaf

*Amaranthus blitoides*  
*Ambrosia artemisiifolia*  
*Abutilon theophrasti*

‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area.

## POSTEMERGENCE WEED CONTROL

### Grass Weeds (1-2 inches)

Barley, Volunteer  
Barnyardgrass  
Bluegrass, Annual  
Crabgrass, large (1/2 inch)  
Foxtail, Bristly  
Foxtail, Giant  
Foxtail, Green  
Foxtail, Yellow  
Panicum, fall  
Wheat, Volunteer

*Hordeum vulgare*  
*Echinochloa crus-galli*  
*Poa annua*  
*Digitaria sanguinalis*  
*Setaria verticillata*  
*Setaria faberi*  
*Setaria viridis*  
*Setaria pumila*  
*Panicum dichotomisoroum*  
*Triticum aestivum*

### Broadleaf Weeds (1-3 inches)

Chamomile, False  
Chickweed, common  
Henbit  
Kochia  
Mustard, Black  
Mustard, Wild  
Pigweed, Redroot  
Pigweed, Smooth  
Puncturevine  
Purslane, Common  
Shepherd's purse  
Wild Radish

*Matricaria maritima*  
*Stellaria media*  
*Lamium amplexicaule*  
*Kochia scoparia*  
*Brassica nigra*  
*Sinapsis arvensis*  
*Amaranthus retroflexus*  
*Amaranthus hybridus*  
*Tribulus terrestris*  
*Portulaca oleracea*  
*Capsella bursa-pastoris*  
*Raphanus raphanistrum*

## POSTEMERGENCE PARTIAL WEED CONTROL‡

### Grass Weeds

Johnsongrass, seedling  
Millet, wild-proso  
Oat, wild  
Quackgrass  
Stinkgrass

*Sorghum halepense*  
*Panicum miliaceum*  
*Avena fatua*  
*Elymus repens*  
*Eragrostis cilianensis*

### Broadleaf Weeds

Cocklebur  
Dandelion, common  
(>6 inches in diameter)  
Lambsquarters, common  
Mallow, common  
Nightshade, hairy  
Nutsedge, yellow  
Pigweed, prostrate  
Ragweed, common  
Smartweed, Pennsylvania  
Thistle, Canada

*Xanthium spp.*  
*Taraxacum officinale*  
*Chenopodium album*  
*Malva neglecta*  
*Solanum sarrachoides*  
*Cyperus esculentus*  
*Amaranthus blitoides*  
*Ambrosia artemisiifolia*  
*Polygonum pennsylvanicum*  
*Cirsium arvense*

Velvetleaf

*Abutilon theophrasti*

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

**SPECIFIC WEED PROBLEMS**

**COMMON DANDELION AND MALLOW:** SOLIDA Herbicide provides excellent preemergence control of common dandelion and mallow germinating from seed. In high rainfall areas or where sprinkler irrigation is used, a second application may be needed to extend residual control throughout the growing season. When applications are made postemergence to these weeds, always add a suitable burndown herbicide such as GLYFOS® or paraquat. Small and medium-sized plants (up to 6 inches in diameter) are controlled by postemergence applications of SOLIDA Herbicide plus a burndown herbicide; however, plants that are larger than 6 inches in diameter may only be suppressed and may require a second application 4 to 6 weeks later.

**MARESTAIL AND FLEABANE:** Where marestail and fleabane are the target weeds, applications prior to emergence provide best results. This may require a fall application to help prevent fall-germinating seedlings from becoming established during the winter. A foliar active herbicide with activity on fleabane and marestail/horseweed (such as paraquat, glyphosate (such as Glyfos X-TRA®), and glufosinate) must be tank mixed with SOLIDA Herbicide for best control and resistance management. After fall application, a second application in the spring may be required to provide extended weed control in the summer. Where SOLIDA Herbicide is applied for control of Marestail and Fleabane, another soil-residual herbicide should be included as a tank mix or rotational partner to aid in resistance management.

**PUNCTUREVINE:** For best results, apply early in the spring when you can expect rainfall or overhead irrigation to move SOLIDA Herbicide into the weed root zone before puncturevine germinates. Puncturevine emerges over a long period of time and late-season germinations may not be controlled.

**YELLOW NUTSEDGE:** SOLIDA Herbicide provides suppression of yellow nutsedge. To obtain the most effective results, use the highest rate allowed based on width of your spray band and make two applications. For applications made postemergence to nutsedge, always add the appropriate rate of glyphosate (such as Glyfos X-TRA®) and an effective adjuvant. On soils with high organic matter (6% or higher) always apply postemergence to weeds since preemergence applications are not as effective on these soils.

**Application Timing – Yellow Nutsedge**

**Preemergence plus Early Postemergence:** Make the preemergence application when you can expect rainfall or overhead irrigation to move SOLIDA Herbicide into the nutsedge root zone prior to nutsedge emergence. Make a second application when emerging nutsedge is 2 to 4 inches tall. **Postemergence plus Postemergence:** Make first application when emerging nutsedge is 2 to 4 inches tall. Repeat application 14 days later. **Note:** If yellow nutsedge is greater than 6 inches tall at the first application, weed control effectiveness will be greatly reduced.

**ANNUAL SUMMER GRASS Weeds (such as Barnyardgrass, Green foxtail, and Crabgrass):** Where sprinkler irrigation is used, a fall or early spring application of SOLIDA Herbicide will not provide season-long control of summer grasses like

foxtail, barnyardgrass, and crabgrass. For best results, use SOLIDA Herbicide with a suitable tank mix herbicide such as oryzalin or pendimethalin. A second application may be needed to provide extended control of summer grasses.

**USE PRECAUTIONS**

- Direct sprays to minimize spray contact with fruit or foliage.

**Diuron-Containing Products (Washington and Oregon):** On coarse-textured soils where crops are grown under sprinkler irrigation, avoid using diuron-containing products (such as Karmex® XP or Direx® 4L) as a tank-mix partner with SOLIDA Herbicide between June 1 and September 30 since crop injury may result. SOLIDA Herbicide tank mixed with diuron products can be used in the fall (after September 30) or early spring when temperatures are cool to moderate.

**CROP ROTATION – (Fruit, Nut, and Vine Crops)**

Do not plant any crops, except field corn, tomatoes, potatoes, and those listed on this label in the APPLICATION INFORMATION section, within one year of the last SOLIDA Herbicide application. Prior to planting, fields to be rotated to the above crops should have a thorough soil mixing – for example, two diskings, or a plowing and a disking. To help ensure rotational crop safety, a field bioassay should be completed prior to planting any other desired crops. The results of this bioassay may require the crop rotation interval to be extended. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production. The test strip should cross the entire field including knolls and low areas.

**MICRO-SPRINKLER CHEMIGATION – (Fruit, Nut, and Vine Crops)**

SOLIDA Herbicide may be applied via micro-sprinkler chemigation. The chemigation system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional (normally closed) solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticide(s) and capable of being fitted with a system interlock. Do not apply SOLIDA Herbicide through any other chemigation equipment.

**USE PRECAUTIONS FOR CHEMIGATION – (Fruit, Nut, and Vine Crops)**

- Do not connect an irrigation system used for SOLIDA Herbicide application to a public water system.
- Distributing treated water in an uneven manner can result in crop injury, lack of effectiveness, or over-tolerance pesticide residues in the crop. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water, apply the mixture for the proper length of time and ensure sprinkler produces a uniform water pattern.
- Do not permit run-off during chemigation.
- Continuous agitation in the mix tank is needed to keep the product from settling. If settling does occur, thoroughly re-agitate the tank mixture before using.

**PRECAUTIONS**

- Avoid spray drift to any adjacent crops or desirable plants as injury may occur.
- Draining or flushing equipment on or near desirable trees or other plants, or in areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots may injure these plants. Trees or desirable plants whose roots extend into a treated crop use area may be injured.
- For best results, maintain spray tank solution at pH 5 to 7.
- Do not apply to frozen or snow covered soil. Crop injury may occur from applications made to poorly drained soils.
- If the selected companion herbicide has a ground or surface water advisory, consider the advisory when using the companion herbicide.

**POTATOES**

**APPLICATION INFORMATION**

**PREEMERGENCE APPLICATIONS**

For best results, apply SOLIDA Herbicide at 1 to 1-1/2 oz of product per acre, immediately after hilling, drag-off, or reservoir tillage (dam/dike operation), to a clean, newly prepared seedbed.

To activate SOLIDA Herbicide in the soil, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), within 5 days after application, to move SOLIDA Herbicide to 3 inch deep into the soil profile. Activating sprinkler irrigation is required regardless of the soil moisture level at planting or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed, waiting for weeds to emerge and applying SOLIDA Herbicide postemergence would result in better weed control.

If a clean, newly prepared seedbed, free of emerged or germinating weeds does not occur, and weeds are present at the application, add a spray adjuvant to the spray mix (See the "Spray Adjuvant" section of this label for additional information). Control may not be adequate for weeds that have an established root system before activation of SOLIDA Herbicide. Do not apply SOLIDA Herbicide within 60 days of potato harvest. Do not exceed 2.5 oz of SOLIDA Herbicide per acre per year.

**TANK MIXTURES – PREEMERGENCE APPLICATIONS**

SOLIDA Herbicide may be tank mixed with herbicides labeled for use on potatoes (such as "Eptam® 7E", "Prowl®", "Prowl® H2O", "Lorox® DF", "Cinch®", or "Dual II Magnum®", Glyphos X-TRA® products registered for potatoes) in accordance with the most restrictive of label limitations and precautions. When tank mixing SOLIDA Herbicide with another potato herbicide(s), read and follow all use directions, restrictions, and precautions of both SOLIDA Herbicide and the tank mix partner(s).

SOLIDA Herbicide may also be used in three-way tank mix combinations with the above herbicide(s). If these instructions conflict with this SOLIDA Herbicide label, do not use as a tank mix with SOLIDA Herbicide.

**SOLIDA Herbicide plus Metribuzin**

Apply a tank mix combination of SOLIDA Herbicide at 1 to 1-1/2 oz per acre and metribuzin at

1/3 to 3/4 lb per acre for better control of such weeds as kochia, Russian thistle, and common lambsquarters. For best results apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Read and follow the metribuzin label for your area.

**SOLIDA Herbicide plus Eptam® 7E**

Apply a tank mix of SOLIDA Herbicide at 1 to 1-1/2 oz per acre and Eptam® 7E at label rates for better control of weeds such as hairy nightshade and crabgrass. For best results apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Since the rates and incorporation methods of Eptam® 7E vary by region, follow the instructions for your region. The procedure is to incorporate a tank mix of Eptam® 7E + SOLIDA Herbicide using irrigation, and not equipment, to prevent poor weed control from deep incorporation of the SOLIDA Herbicide.

If your area does not allow incorporation using irrigation, then apply Eptam® 7E and SOLIDA Herbicide in a split application. Read and follow both product labels for your area.

**SOLIDA Herbicide plus Pendimethalin (such as Prowl® H2O, Prowl® 3.3 EC, Pendimax®, or generic pendimethalin)**

Apply as a tank mix combination of SOLIDA Herbicide at 1 to 1-1/2 oz per acre and Prowl® H2O, Prowl® 3.3 EC, Pendimax®, or generic pendimethalin at label rates for better control of such weeds as kochia, crabgrass, and common lambsquarters. For best results apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Read and follow the Prowl® H2O, Prowl® 3.3 EC, Pendimax®, or generic pendimethalin label for your area.

**SOLIDA Herbicide plus Linuron (such as Lorox® DF)**

Apply a tank mix combination of SOLIDA Herbicide at 1 to 1-1/2 oz per acre and Lorox® DF at 1 to 4 lb per acre for better control of such weeds as common lambsquarter and common ragweed. For best results apply after hilling or drag-off to a clean, newly prepared seedbed, before potatoes emerge and weeds germinate. Read and follow the Lorox® DF label for your area.

**SOLIDA Herbicide plus S-Metolachlor (such as Cinch®, Dual Magnum®, or Dual II Magnum®)**

Apply a tank mix combination of SOLIDA Herbicide at 1 to 1-1/2 oz per acre and Cinch®, Dual Magnum®, or Dual II Magnum® at 1 to 2 pints per acre for better control of such weeds as yellow nutsedge and black nightshade. For best results apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Read and follow both product labels for your area.

**POSTEMERGENCE APPLICATIONS – POTATOES**

For postemergence applications, apply SOLIDA Herbicide at 1 to 1-1/2 oz per acre to young, actively growing weeds after crop emergence. Typically, small weeds (less than 1 inch in height or diameter) that are actively growing at application are most easily controlled (See the “Specific Weed Problems” section of this label for more information).

Under growing conditions that promote crop stress (such as drought, frost, cold temperatures, high temperatures, or extreme temperature variations), temporary chlorosis (lime green color) may occur after application of SOLIDA Herbicide. Symptoms usually disappear within 5 to 15 days.

For best results with SOLIDA Herbicide postemergence, rainfall or sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), no sooner than 4 hours, but not more than 5 days after application, will activate SOLIDA Herbicide in the soil and help provide control of subsequent flushes of annual weeds.

#### **TANK MIXTURES (POTATOES) – POSTEMERGENCE APPLICATIONS**

SOLIDA Herbicide may be tank mixed with pesticide products labeled for use on potatoes (such as Eptam® 7E and metribuzin) in accordance with the most restrictive of label limitations and precautions. When tank mixing SOLIDA Herbicide with another potato pesticide(s), read and follow all use directions, restrictions, and precautions of both SOLIDA Herbicide and the tank mix partner(s).

SOLIDA Herbicide may also be used in three-way tank mix combinations with the above pesticide(s). If these instructions conflict with this SOLIDA Herbicide label, do not use as a tank mix with SOLIDA Herbicide.

#### **SOLIDA Herbicide plus Foliar Fungicides**

SOLIDA Herbicide may be tank mixed with other suitable registered fungicides on potatoes (such as "Curzate" 60 DF, "Manzate", and "Bravo").

Read and follow all manufacturers' label instructions for the companion fungicide. If these instructions conflict with this SOLIDA Herbicide label, do not use as a tank mix with SOLIDA Herbicide.

#### **SOLIDA Herbicide plus Metribuzin**

Apply a tank mix combination of SOLIDA Herbicide at 1 to 1-1/2 oz per acre and metribuzin at 1/4 to 2/3 lb per acre for improved weed control of such weeds as Russian thistle, common lambsquarters and triazine-resistant weeds. Use a nonionic surfactant (NIS) at 0.125% v/v (1 pints/100 gal. of water). The addition of adjuvants to postemergence metribuzin applications may reduce crop tolerance. Adjuvants should be used with caution.

When possible, avoid postemergence applications on metribuzin-sensitive varieties or if the crop is under stress. Read and follow both product labels for your area. **Note:** Crop oil concentrate (COC) or methylated seed oil (MSO) should not be used for tank mix combinations with SOLIDA Herbicide plus metribuzin.

#### **SOLIDA Herbicide plus "Eptam 7E"**

Apply SOLIDA Herbicide at 1 to 1.5 ounce per acre in tank mix with 1 pint per acre of Eptam® 7E herbicide. Include 1% volume/volume (1 gal. per 100 gal. spray solution) of either of a modified seed oil adjuvant (MSO) or 0.5% volume/volume (0.5 gal. per 100 gal. spray solution) of an organo-silicon/modified seed oil blend (OS/MSO – such as Dyne-Amic®, Rivet™, or Phase®). Include a 2 lb/acre of a spray-grade ammonium sulfate (AMS).

For best results, rainfall or sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), no sooner than 4 hours after application, but not more than 1 day after application.

Additional Eptam® 7E can be added during the water in process if desired (read and follow all use directions, restrictions, and precautions on the Eptam® 7E label before use. If these

instructions conflict with this SOLIDA Herbicide label, do not use as a tank mix with SOLIDA Herbicide).

**Precautions:**

Crop injury can occur (leaf burn and temporary yellowing) when applications are made under high temperatures. Addition of fungicides may increase the level of crop injury. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed and may be more variable in weed control.

**SEQUENTIAL APPLICATIONS – POTATOES**

Depending upon rainfall or other environmental conditions, and the density of the top growth of the potato variety (those with poor top growth such as Norkotah), the annual weeds may have a second flush of germinating seedlings, and treated perennials may produce new growth from underground roots or stems. To maximize control of such weeds, it may be necessary to apply SOLIDA Herbicide a second time, 14 to 28 days after the first application (typically, make applications to small weeds that are less than 1 inch in height or diameter that are actively growing). The combined rate of the applications cannot exceed 2.5 oz SOLIDA Herbicide per acre during the same growing season.

**POTATOES GROWN FOR SEED**

SOLIDA Herbicide may be used on potatoes grown for seed that use field-grown tubers as the planted seed piece and are at least the progeny of the first field planting. (First field planting utilizes laboratory-tested stocks, which may be tissue-cultured plantlets, greenhouse- produced microtubers, minitubers, stem cuttings, or line selections.

Apply SOLIDA Herbicide by any of the following methods:

- Preemergence 1.5 oz per acre
- Postemergence at 1.0 to 1.5 oz per acre
- In a sequential application Preemergence at 1.0-1.5 oz per acre, followed by Postemergence at 1.0 oz per acre
- Postemergence at 1.0 oz per acre followed by Postemergence at 1.0 oz per acre.

Do not exceed 2.5 oz per acre of SOLIDA Herbicide in the same year.

To activate SOLIDA Herbicide preemergence, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), within 5 days after application, to move SOLIDA Herbicide 2 to 3 inches deep into the soil profile.

**Restrictions**

- Do not apply to plants suffering stress from lack of moisture, cold, herbicide injury, and insect or disease injury.
- Do not use on potatoes grown for seed if these are grown from microtubers or transplants. Depending on geography, these may be referred to as Generation 1, Nuclear, Elite 1, or Pre-Elite.
- The rotational crop interval for Spring Barley is extended to 18 months due to the generally shorter growing seasons and different cultural practices in seed production in the states of California, Idaho, Oregon, Montana, South Dakota, Washington, Colorado, and parts of North Dakota (all counties in North Dakota except Pembina, Towner, Walsh, Grand Forks, Trail and Cass).

**Precautions**

- The rotational crop interval listed in the SOLIDA Herbicide label may need to be extended to 18 months if seed potato production practices decrease water and/or time for SOLIDA Herbicide breakdown. Practices that may shorten the breakdown are late planting or less frequent irrigations as compared to commercial production practices. Potatoes can be planted at anytime.
- Consider informing your state seed certification agency or inspector that SOLIDA Herbicide has been applied. Under growing conditions that promote crop stress (such as drought, frost, cold temperatures, high temperatures, or extreme temperature variations), temporary chlorosis (lime green color) may occur after application. These symptoms may appear similar to virus-like symptoms (such as chlorosis, leaf crinkling, pinching of terminal leaflet) but will usually disappear within 5 to 15 days of application.

**WEEDS CONTROLLED – POTATO****PREEMERGENCE CONTROL****Grass Weeds**

Barnyardgrass	<i>Echinochloa crus-galli</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria pumila</i>
Wheat, Volunteer	<i>Triticum aestivum</i>

**Broadleaf Weeds**

Chamomile, False	<i>Matricaria maritima</i> L.
Filaree, redstem	<i>Erodium cicutarium</i>
Henbit	<i>Lamium amplexicaule</i>
Kochia	<i>Kochia scoparia</i>
Mustard, Birdsraps	<i>Brassica rapa</i> L.
Mustard, Black	<i>Brassica nigra</i>
Pigweed, Prostrate	<i>Amaranthus blitoides</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Purslane, Common	<i>Portulaca oleracea</i>

**PREEMERGENCE PARTIAL CONTROL†****Grass Weeds**

Crabgrass	<i>Digitaria</i> spp.
Wild Oat	<i>Avena fatua</i>

**Broadleaf Weeds**

Cocklebur	<i>Xanthium</i> spp.
Lambsquarters, Common	<i>Chenopodium album</i>
Nightshade†, Black	<i>Solanum nigrum</i>
Nightshade, Hairy	<i>Solanum sarrachoides</i>
Pigweed, Prostrate	<i>Amaranthus blitoides</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Velvetleaf	<i>Abutilon theophrast</i>

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- † Eastern Black Nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed
- ‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area.

**POSTEMERGENCE CONTROL**

**Grass Weeds**

- |                   |                                |
|-------------------|--------------------------------|
| Barley, Volunteer | <i>Hordeum vulgare</i>         |
| Barnyardgrass     | <i>Echinochloa crus-galli</i>  |
| Bluegrass, Annual | <i>Poa annua</i>               |
| Crabgrass         | <i>Digitaria spp</i>           |
| Foxtail, Bristly  | <i>Setaria verticillata</i>    |
| Foxtail, Giant    | <i>Setaria faberi</i>          |
| Foxtail, Green    | <i>Setaria viridis</i>         |
| Foxtail, Yellow   | <i>Setaria pumila</i>          |
| Panicum, Fall     | <i>Panicum dichotomiflorum</i> |
| Wheat, Volunteer  | <i>Triticum aestivum</i>       |

**Broadleaf Weeds**

- |                    |                                |
|--------------------|--------------------------------|
| Chamomile, False   | <i>Matricaria maritima L.</i>  |
| Chickweed, Common  | <i>Stellaria media</i>         |
| Henbit             | <i>Lamium amplexicaule</i>     |
| Kochia             | <i>Kochia scoparia</i>         |
| Mustard, Birdsrape | <i>Brassica rapa L.</i>        |
| Mustard, Black     | <i>Brassica nigra</i>          |
| Mustard, Wild      | <i>Sinapsis arvensis</i>       |
| Pigweed, Redroot   | <i>Amaranthus retroflexus</i>  |
| Pigweed, Smooth    | <i>Amaranthus hybridus</i>     |
| Purshlane, Common  | <i>Portulaca oleracea</i>      |
| Shepherd's purse   | <i>Capsella bursa-pastoris</i> |
| Wild Radish        | <i>Raphanus raphanistrum</i>   |

**POSTEMERGENCE PARTIAL CONTROL ‡**

**Grass Weeds**

- |                        |                               |
|------------------------|-------------------------------|
| Johnsongrass, seedling | <i>Sorghum halepense</i>      |
| Millet, wild-proso     | <i>Panicum miliaceum</i>      |
| Oat, wild              | <i>Avena fatua</i>            |
| Stinkgrass             | <i>Eragrostis cilianensis</i> |
| Yellow Nutsedge        | <i>Cyperus esculentus</i>     |

**Broadleaf Weeds**

- |                         |                                 |
|-------------------------|---------------------------------|
| Thistle, Canada†        | <i>Cirsium arvense</i>          |
| Cocklebur               | <i>Xanthium spp.</i>            |
| Lambsquarters, Common   | <i>Chenopodium album</i>        |
| Morningglory, Ivyleaf   | <i>Ipomoea hederacea</i>        |
| Nightshade, Hairy       | <i>Solanum sarrachoides</i>     |
| Nightshade*†, Black     | <i>Solanum nigrum</i>           |
| Pigweed Prostrate       | <i>Amaranthus blitoides</i>     |
| Quackgrass†             | <i>Elymus repens</i>            |
| Ragweed, Common         | <i>Ambrosia artemisiifolia</i>  |
| Smartweed, Pennsylvania | <i>Polygonum pennsylvanicum</i> |
| Velvetleaf              | <i>Abutilon theophrasti</i>     |
| Volunteer Alfalfa**     | <i>Medicago sativa</i>          |

- \* Eastern Black Nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed.
- \*\* Except in California
- ‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of partial control varies with the rate used, the size of weeds, and the environmental conditions following treatment.
- † See Specific Weed Problems

### **AERIAL APPLICATION**

#### **(See also SPRAY DRIFT)**

- Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at a minimum of 5 GPA. In California use a minimum of 10 GPA.
- Do not apply during a temperature inversion, when winds are gusty or when conditions favor poor coverage and/or off-target spray movement.
- Do not apply by air in the state of California, except in Modoc or Siskiyou counties. Do not apply by air in the state of New York.

### **CHEMIGATION – POTATOES ONLY**

SOLIDA Herbicide can be applied using center-pivot, lateral-move, solid-set, or hand-move irrigation systems in potatoes. Do not apply SOLIDA Herbicide using any other type of irrigation system. Check irrigation systems to insure uniform application of water to all areas. Failure to apply SOLIDA Herbicide uniformly may result in crop injury and/or poor weed control.

For best results, use the highest labeled rate and apply preemergence to early postemergence to the weeds (weeds less than 1 inch tall). If weeds are present at application, add a nonionic surfactant containing at least 80% active ingredient to the spray mix at 1 to 2 pints/acre.

SOLIDA Herbicide may be mixed in a supply tank with water, fertilizer, or other appropriate agricultural chemicals. Maintain continuous agitation in the injection nurse tanks during application.

For solid set and hand move irrigation systems, apply SOLIDA Herbicide at the beginning of the set and then apply 1/3 to 1 inch of water for activation (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, and clay soils apply at least 1 inch).

If you have questions about calibrating chemigation equipment, contact State Extension Service specialists, equipment manufacturers, or other experts. If the chemigation equipment needs adjustment, only the custodian responsible for its operation or someone under the supervision of that custodian should make the necessary adjustments.

### **IRRIGATION SYSTEM REQUIREMENTS**

The irrigation system must contain the following:

- a functional check valve
- vacuum relief valve
- a low-pressure drain (to prevent water source contamination from backflow; should be located on the irrigation pipeline)
- functional interlocking controls (to automatically shut off the pesticide injection pump when the water pump motor stops)
- a metering pump, such as positive-displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and

capable of being fitted with a system interlock.

The pesticide injection pipeline must contain the following:

- a functional, automatic, quick-closing check valve (to prevent the flow of fluid back toward the injection pump)
- a functional, solenoid-operated valve (normally closed) located on the intake side of the injection pump (should be connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is shut down either automatically or manually)

The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when pesticide distribution is adversely affected by a decrease in water pressure.

**CHEMIGATION PRECAUTIONS**

Distributing treated water in an uneven manner can result in crop injury, lack of effectiveness, and pesticide residues in the crop that may be above tolerance limits. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water and apply the mixture for the proper length of time.

- Do not permit run-off during chemigation.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Do not connect an irrigation system (including greenhouse systems) used for SOLIDA Herbicide application to a public water system.

**SOLIDA HERBICIDE ROTATIONAL CROP GUIDELINES – POTATO**

Rotation Crop	Interval (months)
Alfalfa**	4
Barley, Spring*	9
Beans, Dry	10
Carrots (Kern County, CA)**	4
Carrots**	10
Corn, Field	Anytime
Corn, Popcorn	10
Corn, Sweet	10
Cotton	10
Cover Crops (erosion control)	4
Cucumber	10
Garlic	6
Grass, pasture, hay, seed**	4
Mint**	4
Oats, Spring	9
Onions**	10
Peas**	8
Potatoes	Anytime
Sunflowers	10
Soybeans	4
Tomatoes	Anytime
Wheat, Spring	9
Wheat, Winter	4
Crops Not Listed	18

\* Idaho – 18 months for Teton County, Caribou County, Madison County East of Hwy. 20, and Fremont County East of Hwy. 20. Colorado – Alamosa, Conejos, Costilla, Rio Grande and Saguache Counties: 1.5 oz or less SOLIDA Herbicide per acre per season – 9 months; greater than 1.5 oz of SOLIDA Herbicide per acre per season – 18 months

\*\* Potatoes grown under sprinkler irrigation with a minimum of 18 inches of water per season. This rotation interval is for sand, loamy sand, and sandy loam soils having not more than 1.5% organic matter where a minimum of 18 inches of sprinkler irrigation is used on the previous potato crop. Injury to the rotated crop may occur if less than 18 inches of irrigation is used on the previous potato crop. For tank mixtures, follow the most restrictive rotational crop guideline.

**\*\* Specific Rotation for Crops marked \*\*:**  
 For Rotation to Alfalfa: SOLIDA Herbicide in potatoes not to exceed 1 ounce per use season in Adams, Grant, Douglas and Lincoln Counties of Washington, and SOLIDA Herbicide in potatoes not to exceed 1.5 ounces per acre per use season in Benton, Franklin, Klickitat, Walla Walla, and Yakima Counties in Washington and Morrow and Umatilla Counties in Oregon.

For Rotation to Onions and Carrots: SOLIDA Herbicide in potatoes not to exceed 1.5 ounces per acre per use season in Adams, Grant, Douglas and Lincoln Counties of Washington, and SOLIDA Herbicide in potatoes not to exceed 2.5 ounces per acre per use season in Benton, Franklin, Klickitat, Walla Walla, and Yakima Counties in Washington and Morrow and Umatilla Counties in Oregon.

For Rotation to Grass Crops Grown for Seed, Hay or Pasture: SOLIDA Herbicide in potatoes not to exceed 1.5 ounces per acre per use season in Adams, Grant, Douglas, and Lincoln Counties of Washington, and SOLIDA Herbicide in potatoes not to exceed 2.5 ounces per acre per use season in Benton, Franklin, Klickitat, Walla Walla and Yakima counties in Washington and Morrow and Umatilla Counties in Oregon.

For Rotation to Peas and Mints: SOLIDA Herbicide in potatoes not to exceed 1.5 ounces per acre per use season in all areas.

**NOTE:** SOLIDA Herbicide should not be used in a tank mix or sequential application program with other soil residual ALS-inhibiting herbicides on potatoes as the combined effects of these herbicides on the planting of subsequent crops have not been thoroughly investigated and crop injury may occur.

**RESTRICTIONS**

**Potatoes**

- Do not apply SOLIDA Herbicide on potatoes within 60 days of harvest.
- Do not exceed 2.5 oz of SOLIDA Herbicide per acre on potatoes during the same growing season.
- Do not apply to sweet potatoes or yams.
- Do not use SOLIDA Herbicide on potatoes grown for seed, except as directed on this labeling or supplemental labeling.
- Do not apply to potatoes growing in greenhouses, cold frames, pot cultures, etc. Apply only to potatoes growing in fields.

**TOMATOES (DIRECT SEEDED AND TRANSPLANT)**

**PREEMERGENCE APPLICATIONS**

For preemergence applications to the crop, apply SOLIDA Herbicide after seeding at 2.0 to 4.0 oz product per acre.

To activate SOLIDA Herbicide in the soil, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2-inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) within 5 days after application to move SOLIDA Herbicide 2 to 3 inches deep into the soil profile. Activating sprinkler irrigation is required regardless of the soil moisture level at planting or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed,

waiting for weeds to emerge and applying SOLIDA Herbicide postemergence may result in better weed control.

If a clean, newly prepared seedbed, free of emerged or germinating weeds does not occur and weeds are present at application, the addition of a spray adjuvant may improve weed control (see the SPRAY ADJUVANT section of this label for additional information). Control may not be adequate for weeds that are greater than 1 inch in height or diameter or weeds that have an established root system before activation of SOLIDA Herbicide.

**POSTEMERGENCE APPLICATIONS**

For postemergence applications, apply SOLIDA Herbicide at 1.0 to 2.0 oz product per acre (use 2.0 oz per acre for longer residual) to young, actively growing weeds after the crop has reached the cotyledon stage. Optimum performance is obtained when weeds are less than 1 inch in height or diameter and are actively growing.

Use a surfactant at a minimum rate of 0.25% V/V (2 pints/100 gallons of water). The use of crop oil concentrate, methylated seed oils, nitrogen fertilizer solution, or nonionic surfactant rates above 0.25% V/V may result in temporary crop chlorosis (yellowish color). Symptoms usually disappear within 5 to 15 days.

Under growing conditions that promote crop stress (such as drought, frost, cold temperatures, high temperatures, extreme temperature variations, or saturated or water-logged soils), temporary crop chlorosis (yellowish color) may occur after application with SOLIDA Herbicide. Symptoms usually disappear within 5 to 15 days.

For best results with SOLIDA Herbicide postemergence, rainfall or sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2, sandy loams apply at least 1/2, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), no sooner than 4 hours but not more than 5 days after application, will activate SOLIDA Herbicide in the soil and help provide control of subsequent flushes of annual weeds.

Postemergence applications of SOLIDA Herbicide should be made after the tomatoes reach the cotyledon stage.

**SEQUENTIAL APPLICATIONS TOMATOES**

Annual weeds at times may have multiple flushes of seedlings, or treated weeds may sometimes regrow from underground stems or roots, depending upon rainfall and other environmental conditions. To maximize control of such weeds, it may be necessary to use sequential applications of SOLIDA Herbicide.

**PREEMERGENCE FOLLOWED BY POSTEMERGENCE**

Applications of SOLIDA Herbicide may be applied preemergence followed by a single or multiple applications postemergence.

**Note:** For sequential applications the total amount of SOLIDA Herbicide cannot exceed 4.0 oz product per acre year on a broadcast basis.

**POSTEMERGENCE FOLLOWED BY POSTEMERGENCE**

Multiple applications of SOLIDA Herbicide may be applied postemergence, optimum control is seen when the first application is made to small actively growing weeds, followed by a second application 7 to 14 days later.

**Note:** For sequential applications the total amount of SOLIDA Herbicide cannot exceed 4.0 oz

product per acre per year on a broadcast basis.

#### **BAND APPLICATIONS – TOMATOES**

SOLIDA Herbicide can be applied preemergence and postemergence as a banded application. Use proportionally less spray mixture based on the soil area actually sprayed. See the "Preemergence Applications" and "Postemergence Applications" sections of this label for additional details on the use of SOLIDA Herbicide.

#### **TANK MIXTURES – TOMATOES**

SOLIDA Herbicide may be tank mixed with pesticide products labeled for use on tomatoes in accordance with the most restrictive of label limitations and precautions. When tank mixing SOLIDA Herbicide with another tomato pesticide(s), read and follow all use directions, restrictions, and precautions of both SOLIDA Herbicide and the tank mix partner(s).

SOLIDA Herbicide may also be used in three-way tank mix combinations with the above pesticide(s). If these instructions conflict with this SOLIDA Herbicide label, do not use as a tank mix with SOLIDA Herbicide. Tank mixtures with products that lower the spray solution pH may reduce weed control (such as LI700 surfactant).

#### **SOLIDA Herbicide plus Foliar Fungicides**

SOLIDA Herbicide may be tank mixed with suitable registered fungicides (such as Manzate® and Bravo®) on tomatoes. Tank mixtures with copper-containing fungicides may reduce weed control.

Read and follow all manufacturers' label instructions for the companion fungicide. If these instructions conflict with this SOLIDA Herbicide label, do not use as a tank mix with SOLIDA Herbicide.

#### **TOMATOES: CALIFORNIA PREEMERGENCE APPLICATIONS**

For preemergence applications to the crop, apply SOLIDA Herbicide after seeding at 2.0 to 4.0 oz product per acre. To activate SOLIDA Herbicide in the soil, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) within 5 days after application to move SOLIDA Herbicide 2 to 3 inches deep into the soil profile. Activating sprinkler irrigation is required regardless of the soil moisture level at planting, or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed, waiting for weeds to emerge and applying SOLIDA Herbicide postemergence may result in better weed control.

If a clean, newly prepared seedbed, free of emerged or germinating weeds does not occur and weeds are present at application, the addition of spray adjuvant may improve weed control (see the SPRAY ADJUVANT section of this label for additional information). Control may not be adequate for weeds that are greater than 1 inch in height or diameter or weeds that have an established root system before activation of SOLIDA Herbicide.

#### **POSTEMERGENCE APPLICATIONS**

For postemergence applications, apply SOLIDA Herbicide at 2.0 oz product per acre to young, actively growing weeds after the crop has reached the cotyledon stage. Optimum performance

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is obtained when weeds are less than 1 inch in height or diameter and are actively growing.

Use a surfactant at a minimum rate of 0.25% V/V (2 pints/100 gallons of water). The use of crop oil concentrate, methylated seed oils, nitrogen fertilizer solution or nonionic surfactant rates above 0.25% V/V may result in temporary crop chlorosis (yellowish color). Symptoms usually disappear within 5 to 15 days.

Under growing conditions that promote crop stress (such as drought, frost, cold temperatures, high temperatures, extreme temperature variations, or saturated or water-logged soils), temporary crop chlorosis (yellowish color) may occur after application of SOLIDA Herbicide. Symptoms usually disappear within 5 to 15 days.

For best results with SOLIDA Herbicide postemergence, rainfall or sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) no sooner than 4 hours but not more than 5 days after application will activate SOLIDA Herbicide in the soil and help provide control of subsequent flushes of annual weeds.

Postemergence applications of SOLIDA Herbicide should be made after the tomatoes reach the cotyledon stage.

#### **SEQUENTIAL APPLICATIONS**

Annual weeds at times may have multiple flushes of seedlings, or treated weeds may sometimes regrow from underground stems or roots, depending upon rainfall and other environmental conditions. To maximize control of such weeds, it may be necessary to use sequential applications of SOLIDA Herbicide.

#### **PREEMERGENCE FOLLOWED BY POSTEMERGENCE**

Applications of SOLIDA Herbicide may be applied Preemergence followed by single or multiple applications of Postemergence.

**Note:** For sequential applications the total amount of SOLIDA Herbicide cannot exceed 4.0 oz product per acre year on a broadcast basis.

#### **POSTEMERGENCE FOLLOWED BY POSTEMERGENCE**

Multiple applications of SOLIDA Herbicide may be applied postemergence; optimum control is seen when the first application is made to small actively growing weeds followed by a second application 7 to 14 days later.

**Note:** For sequential applications the total amount of SOLIDA Herbicide cannot exceed 4.0 oz product per acre per year on a broadcast basis.

#### **BAND APPLICATIONS – TOMATOES:**

SOLIDA Herbicide can be applied in a preemergence band at 2.0 to 4.0 oz product per acre (For example, 0.5 to 1.0 oz of product per conventional broadcast acre assuming 25% banding) followed by two separate postemergence band applications applied at 2 oz product per acre (For example, 0.5 oz of product per conventional broadcast acre assuming 25% banding) over the same sprayed area.

Do not make any more than three band applications of SOLIDA Herbicide in one growing season.

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## WEEDS CONTROLLED – TOMATO

### PREEMERGENCE CONTROL

#### Grass Weeds

Barnyardgrass	<i>Echinochloa crus-galli</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria pumila</i>
Wheat, Volunteer	<i>Triticum aestivum</i>

#### Broadleaf Weeds

Filaree, redstem	<i>Erodium cicutarium</i>
Henbit	<i>Lamium amplexicaule</i>
Kochia	<i>Kochia scoparia</i>
Mustard, Black	<i>Brassica nigra</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Purslane, Common	<i>Portulaca oleracea</i>

### PREEMERGENCE PARTIAL CONTROL ‡

#### Grass Weeds

Crabgrass	<i>Digitaria spp.</i>
Wild Oat	<i>Avena fatua</i>

#### Broadleaf Weeds

Cocklebur	<i>Xanthium spp.</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Nightshade*, Black†	<i>Solanum nigrum</i>
Nightshade, Hairy	<i>Solanum sarrachoides</i>
Pigweed, Prostrate	<i>Amaranthus blitoides</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Velvetleaf	<i>Abutilon theophrasti</i>

\* Eastern Black Nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed

† See specific weed problems

‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area.

### POSTEMERGENCE CONTROL (weeds not to exceed 1 inch in height)

#### Grass Weeds

Barley, Volunteer	<i>Hordeum vulgare</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bluegrass, Annual	<i>Poa annua</i>
Crabgrass	<i>Digitaria spp.</i>
Foxtail, Bristly	<i>Setaria verticillata</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria pumila</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Wheat, Volunteer	<i>Triticum aestivum</i>

**Broadleaf Weeds**

Chamomile, False	<i>Matricaria maritima</i> L.
Chickweed, Common	<i>Stellaria media</i>
Henbit	<i>Lamium amplexicaule</i>
Kochia	<i>Kochia scoparia</i>
Mustard, Birdrape	<i>Brassica rapa</i> L.
Mustard, Black	<i>Brassica nigra</i>
Mustard, Wild	<i>Sinapsis arvensis</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Purslane, Common	<i>Portulaca oleracea</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Wild Radish	<i>Raphanus raphanistrum</i>

**POSTEMERGENCE PARTIAL CONTROL ‡**

**Grass Weeds**

Johnsongrass, seedling	<i>Sorghum halepense</i>
Millet, wild-proso	<i>Panicum miliaceum</i>
Oat, wild	<i>Avena fatua</i>
Quackgrass†	<i>Elymus repens</i>
Stinkgrass	<i>Eragrostis cilianensis</i>
Yellow Nutsedge	<i>Cyperus esculentus</i>

**Broadleaf Weeds**

Thistle, Canada†	<i>Cirsium arvense</i>
Cocklebur	<i>Xanthium spp.</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Morningglory, Ivyleaf	<i>Ipomoea hederacea</i>
Nightshade, Hairy	<i>Solanum sarrachoides</i>
Nightshade*†, Black (cotyledon stage only)	<i>Solanum nigrum</i>
Pigweed Prostrate	<i>Amaranthus blitoides</i>
Quackgrass†	<i>Elymus repens</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Volunteer Alfalfa**	<i>Medicago sativa</i>

\* Eastern Black Nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed. Black Nightshade partial control is only for use in Tomatoes in California.

\*\* Except in California

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

† See Specific Weed Problems

**SOLIDA HERBICIDE ROTATIONAL CROP GUIDELINES – TOMATO**

For crops listed below, planting prior to the interval shown may result in crop injury when using SOLIDA Herbicide. Rotation intervals may need to be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless supplemental sprinkler irrigation has been applied and totals greater than 15 inches during the growing season. For tank mixtures, follow the most restrictive rotational crop guideline.

Rotation Crop	Interval (months)
Beans, Dry	10
Beans, Snap	10
Corn, Field	Anytime
Corn, Sweet	10
Cotton	10
Cucumber	10
Garlic	6
Potatoes	Anytime
Soybeans	10
Tomatoes	Anytime
Wheat, Winter	4
Crops Not Listed	12

**Note:** Where drip-irrigated tomatoes are grown, rotate only to tomato, potato, or field corn as crop injury may result.

Rotational crops may be planted at indicated intervals provided the fields are deep disked or plowed and thorough soil mixing is achieved prior to planting the rotational crop.

**RESTRICTIONS**

**Tomatoes**

- Do not apply SOLIDA Herbicide within 45 days of tomato harvest.
- Do not apply SOLIDA Herbicide by air on tomatoes.
- Do not apply using assisted (Airblast) field crops sprayers on tomatoes.
- Do not exceed 4.0 oz SOLIDA Herbicide per acre (broadcast basis) on tomatoes during the same growing season.
- Do not apply to tomatoes growing in greenhouses, cold frames, pot cultures, etc. Apply only to tomatoes growing in fields.
- Do not apply through any type of irrigation system.

**CULTIVATION**

A timely cultivation may be necessary to control suppressed weeds, weeds that were beyond the maximum size at application, or weeds that emerge after an application of SOLIDA Herbicide.

- Cultivation up to 7 days before the postemergence application of SOLIDA Herbicide may decrease weed control by pruning weed roots, placing the weeds under stress or covering the weeds with soil and preventing coverage by SOLIDA Herbicide.
- To allow SOLIDA Herbicide to fully control treated weeds, do not cultivate for 7 days after application.
- Optimizing timing for cultivation is 7 to 14 days after a postemergence application of SOLIDA Herbicide.

**SPECIFIC WEED PROBLEMS**

**Quackgrass:** For best results, apply SOLIDA Herbicide postemergence to quackgrass that is 4 to 8 inches tall. Quackgrass not emerged at the time of application will not be controlled or suppressed, and would require a second postemergence application for acceptable control.

**Black Nightshade (Tomatoes):** For best results, apply SOLIDA Herbicide preemergence (prior to weed germination) at 2 to 4 oz per acre followed by a postemergence application at 1 to 2 oz per acre to small actively growing weeds.

**Canada Thistle:** For best results, apply SOLIDA Herbicide postemergence to small actively growing Canada thistle. Canada thistle not emerged at the time of application will not be

controlled or suppressed and would require a second postemergence application for acceptable control.

### **SPRAY ADJUVANTS**

Include a spray adjuvant with applications of SOLIDA Herbicide when applied by itself and postemergence to the weeds. Consult your Ag dealer or applicator prior to using an adjuvant system. If another herbicide is tank mixed with SOLIDA Herbicide, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

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

- Apply 0.125 to 0.25% v/v (1 to 2 pints/100gal. of water). The 0.25% v/v rate is preferred under arid or drought conditions.
- Surfactant products must contain at least 80% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

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

- Apply at 1% volume/volume (1 gal. per 100 gal. spray solution), or 2% under arid conditions.
- Oil adjuvants must contain at least 80% high-quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.
- Blended products that contain both MSO and silicone are acceptable at labeled rates.

#### **Ammonium Nitrogen Fertilizer**

- Use 2 quart/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS). Use 4 quart/acre UAN or 4 lb/acre AMS under arid conditions.
- Do not use liquid nitrogen fertilizer as the total carrier solution.

#### **Special Adjuvant Types**

- Combination adjuvant products may be used at doses that provide the required amount of NIS and ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- Do not use any other adjuvant rates or mixtures with SOLIDA Herbicide unless instructed to do so by Cheminova representative.

#### **Precautions:**

1. The use of silicone polymer-type surfactants is not suggested as reduced weed control may result.
2. Avoid using crop oil concentrate (COC) or methylated seed oil (MSO) when tomatoes are under heat stress (>85 degrees F) as multiple stresses may cause crop injury.

### **EQUIPMENT-SPRAY VOLUMES**

Agitate the spray tank continuously to keep the material in suspension.

Do not use equipment and/or spray volumes that will cause damage from spray by drift onto nontarget sites. Do not make applications when weather conditions are likely to cause spray to drift onto nontarget sites. (see the SPRAY DRIFT MANAGEMENT section of this label for additional information).

### **GROUND APPLICATION – POTATOES AND TOMATOES**

To ensure optimum spray distribution and thorough coverage, apply SOLIDA Herbicide with a properly calibrated, low-pressure (20 to 40 psi) boom sprayer equipped with flat fan, "Twinjet", underleaf banding nozzles or flood jet nozzles. Nozzle screens should be no finer than 50 mesh. When using flood nozzles, the spray pattern should overlap 100% for optimum product performance. For banded applications even-flow flat fan or twin jet spray nozzles may provide a

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more uniform spray distribution.

**SPRAYER CLEANUP**

Spray equipment or nurse tanks used in chemigation must be cleaned before SOLIDA Herbicide is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the 6 steps outlined in the "After Spraying SOLIDA Herbicide and before Spraying Other Crops" section of this label.

For maximum preemergence activity, prior to application, the bed or soil surface should be smooth and relatively free of crop and weed trash (dead weeds, decaying leaves, clippings, etc.). Leaves and trash may be removed by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide application. Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of SOLIDA Herbicide. Cutting water furrows or cultivations that mix untreated soil into the treated areas will also reduce the effectiveness of the herbicide treatment.

For best weed management, apply SOLIDA Herbicide with another suitable residual herbicide registered for that crop on all soil types, but especially on coarse-textured soils under standard sprinklers or micro-sprinklers.

More than one banded application of SOLIDA Herbicide may be needed to provide extended weed control.

**RANGELAND RESTORATION WEST OF THE MISSISSIPPI RIVER**

**GENERAL INFORMATION**

A restoration management program that includes SOLIDA Herbicide may be used when rangeland has become severely infested with invasive weed species such that the land has deteriorated to a point that it is no longer suitable for grazing or forage production. To reclaim these lands, the invasive weed species must first be controlled to allow native grasses to reestablish or to be replanted with desirable forage grasses. The grasses must be allowed time to reestablish before grazing or forage production is resumed. A typical restoration management program will take one to two years. SOLIDA Herbicide may be used to control grass and broadleaf weeds listed in this section under Weeds Controlled. The residual activity of SOLIDA Herbicide will also help prevent the reemergence of many of these weeds while desirable grasses are being reestablished.

At the maximum application rate of 4.0 ounces of SOLIDA Herbicide per acre per year, desirable rangeland perennial grasses in the treated area may exhibit a temporary chlorosis (yellowing of foliage) following application. The use of an adjuvant with SOLIDA Herbicide can increase desirable perennial grass injury.

Do not graze treated sites or cut for forage or hay for a minimum of 1 year after application in order to allow newly emerged grasses sufficient time to become established. Where practical, fencing or other measures are to be used to prevent early grazing of re-established sites to help promote active grass restoration.

**RESTORATION PROGRAM**

An effective restoration program may include one or more of the following steps (A through F):

- A. Identify and inventory weeds and desired grass densities.
- B. Consult and plan the entire program with personnel experienced in herbicide programs and range restoration.
- C. Make applications of SOLIDA Herbicide prior to soil freeze or after spring thaw. Make sure all label precautions are followed.
- D. Include a tank mix partner labeled for use on rangeland to broaden the spectrum of weeds controlled.
- E. Plant grass seed as needed to improve the site, per the Grass Replant Interval in this section of the label.
  - Plant to obtain the highest possible grass stand establishment.
  - Plant a selected grass mixture to improve the desired stand.
  - Use a properly fitted drill to help ensure correct seed placement and depth.
  - Seed in late fall to best ensure moisture for seed germination. Seeding in the spring has the highest risk of stand failure.
  - Consult with a knowledgeable grass seed supplier to select the best-suited varieties for your area.
  - Treat for second year for best control (if necessary): Treat with DuPont Telar® XP (chlorsulfuron) (0.25 to 1 ounce per acre) + bromoxynil (1 pint per acre) to weeds at the early growth stage.

**GRASS REPLANT INTERVAL**

The replant interval is for soils with a pH of less than 7.5. Soils having a pH greater than 7.5 will require a longer interval. The replant interval is for applications made in the spring. Because SOLIDA Herbicide degradation is slowed by cold, dry, or frozen soils, the replant interval for applications made in the fall should begin the spring following treatment.

Following a treatment with SOLIDA Herbicide at use rates up to 4.0 ounces of product per acre, the following grasses may be replanted at least 7 months after a spring application. Rainfall or irrigation of at least 1/2 inch following treatment is necessary to replant 7 months after a SOLIDA Herbicide application. If the treated site does not receive at least 1/2 inch of rainfall or irrigation within 4 weeks after SOLIDA Herbicide application, then the grass replant interval is 12 months.

Crested wheatgrass	<i>Agropyron cristatum</i>
Intermediate wheatgrass	<i>Thinopyrum intermedium</i>
Blue bunch wheatgrass	<i>Pseudoroegneria spicata</i>
Squirreltail	<i>Elymus elymoides</i>
Beadless (creeping) wild rye	<i>Leymus triticoides</i>
Big bluegrass	<i>Poa ampla</i>
Idaho fescue	<i>Festuca idahoensis</i>
Smooth brome	<i>Bromus inermis</i>

Testing has indicated that there is considerable variation in response among species and types of grasses when seeded into areas treated with SOLIDA Herbicide. If species other than those listed above are to be planted into areas treated with SOLIDA Herbicide, a field bioassay should be performed, or previous experience may be used to determine the feasibility of replanting treated areas. To conduct a field bioassay, grow to maturity test strips of the grass species you

plan to grow the following year. The test strips should cross the entire field including knolls and low areas. Crop response to the bioassay will indicate whether or not to plant the grass species grown in the test strips.

## APPLICATION EQUIPMENT

SOLIDA Herbicide may be applied using ground or aerial spray equipment. Fixed-wing aircraft and helicopters can be used to apply SOLIDA Herbicide; however, do not make applications by fixed-wing aircraft unless appropriate buffer zones can be maintained to prevent spray drift out of the target area or, when treating open tracts of land, spray drift as a result of fixed-wing aircraft application can be tolerated. Aerial equipment designed to minimize spray drift, such as a helicopter equipped with a Microfoil® boom or raindrop nozzles, must be used and calibrated. Except when applying with a Microfoil® boom, a drift-control agent may be added at the labeled rate.

## APPLICATION RATES AND TIMING

Apply SOLIDA Herbicide at 2.0 to 4.0 ounces per acre in the fall or spring, prior to moisture expectation and plant growth. Do not apply when soil is frozen. For residual activity, moisture is required to activate SOLIDA Herbicide. When applied at lower rates in the spring, SOLIDA Herbicide provides suppression\* of weeds listed. When applied at higher rates in the fall, weed control is afforded.

- \* Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated check. The degree of actual control that may occur will vary with the size of the weeds, the degree of weed or desirable grass competition, and environmental conditions.

## TANK MIXTURES

SOLIDA Herbicide may be tank mixed with other herbicides registered for rangeland use. Refer to the label of the tank mix partner(s) for any additional use instructions or restrictions. SOLIDA Herbicide may be mixed with chlorsulfuron (0.25 to 1 ounce per acre) to broaden the spectrum of broadleaf and grass weed control. Refer to the Telar® XP label for additional information on weed species controlled, use rates, and instructions or restrictions.

## WEEDS CONTROLLED

When applied at 2.0 ounces per acre in the spring, SOLIDA Herbicide suppresses the following weeds and when applied at 3.0 ounces per acre in the fall, SOLIDA Herbicide controls the following weeds:

Brome, downy (cheatgrass)	<i>Bromus tectorum</i>
Brome, Japanese	<i>Bromus japonicus</i>
Cheat	<i>Bromus secalinus</i>

When applied at 4.0 ounces per acre, SOLIDA Herbicide controls the following additional weeds:

Barnyardgrass	<i>Echinochloa crus-galli</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Foxtail, giant	<i>Setaria faberi</i>

Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria pumila</i>
Filaree redstem	<i>Erodium cicutarium</i>
Fleabane, hairy	<i>Conyza bonariensis</i>
Mallow, common	<i>Malva neglecta</i>
Horseweed/marestail*	<i>Conyza canadensis</i>
Medusahead	<i>Taeniatherum caput-medusae</i>
Mustard, black	<i>Brassica nigra</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Puncturevine	<i>Tribulus terrestris</i>

\* Naturally occurring resistant biotypes of this weed are known to exist in some areas of the U.S. SOLIDA Herbicide will not control these biotypes.

## USE PRECAUTIONS

Treatment of powdery, dry soil or light sandy soil when there is little likelihood of rainfall soon after treatment may result in off-target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to SOLIDA Herbicide may injure or kill most crops. Injury may be more severe when the crops are irrigated. Do not apply SOLIDA Herbicide when these conditions are identified and where powdery, dry soil or light or sandy soil is known to be prevalent in the area to be treated.

In order to reduce the potential for off-site movement of SOLIDA Herbicide from wind or water-related soil erosion, do not burn, disk, or otherwise disturb treated sites between the time of application and reseeding or reestablishment of native grasses.

Preemergence use on soils containing more than 6% organic matter may result in reduced weed control.

Minimize spray drift to any adjacent crops or planned crop planting areas or desirable plants since injury may occur.

Draining or flushing equipment on or near desirable trees or other plants or in areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots may injure these plants.

Crops (especially crops other than pome fruit, tree nuts, stone fruit, citrus, grapes, potatoes, tomatoes, and field corn) whose roots may extend into a treated area may be injured. Do not contaminate any body of water, including irrigation water that may be used on other crops.

Do not treat frozen soil. Do not apply in or on irrigation ditches or canals including their outer banks. Do not apply through any type of irrigation system. If restoration sites treated with SOLIDA Herbicide are to be converted to an agricultural use other than rangeland, consult the SOLIDA Herbicide label for all rotational crop instructions.

## FOR SELECTIVE WEED CONTROL AND INVASIVE SPECIES MANAGEMENT IN NON-CROP SITES

SOLIDA Herbicide is a water soluble granule formulation to be mixed with water and sprayed for weed control on private, public and military lands as follows: non-agricultural areas (such as airports, highway, railroad and utility rights-of-way, sewage disposal areas, etc.); uncultivated agricultural areas – non-crop producing (such as farmyards, fuel storage areas, fence rows, non-irrigation ditchbanks, barrier strips, etc.); industrial sites – outdoor (such as lumberyards, pipeline and tank farms, etc.) and non-cropland wildlife habitats.

### Invasive Species Management

SOLIDA Herbicide may be used on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants.

Effective EDRR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is recommended, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible, eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

SOLIDA Herbicide is non-corrosive to spray equipment, non-flammable and non-volatile. Do not use SOLIDA Herbicide in a spray solution or with spray additives that buffer the pH to below 4.0, or above 8.0, as degradation of SOLIDA Herbicide may occur.

SOLIDA Herbicide may be used in weed management programs on non-crop sites to provide residual preemergence and early postemergence control of the following weeds:

Barnyardgrass	<i>Echinochloa crus-galli</i>
Browme, downy	<i>Bromus tectorum</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria pumila</i>
Filaree redstem	<i>Erodium cicutarium</i>
Fleabane, hairy	<i>Conyza bonariensis</i>
Mallow, common	<i>Malva neglecta</i>
Marestail/horsweed*	<i>Conyza canadensis</i>
Medusahead	<i>Taeniatherum caput-medusae</i>
Mustard, black	<i>Brassica nigra</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Puncturevine	<i>Tribulus terrestris</i>

\* Naturally occurring resistant biotypes of this weed are known to exist in some areas of the U.S. SOLIDA Herbicide will not control these biotypes.

Refer to the rest of the label for other weeds controlled.

To provide a broader spectrum of residual weed control, SOLIDA Herbicide may be applied in a tank mixture with other registered preemergence herbicides. When weeds are present at application, include a labeled burn down herbicide, such as Glyphos® with an appropriate adjuvant.

For best results, make postemergence applications to young, actively growing weeds and include a spray adjuvant. Refer to the label of the tank mixture partner(s) for any additional use instructions or restrictions. Follow the most restrictive labeling of any of the tank-mix component products.

**TANK MIXTURES**

SOLIDA Herbicide may be mixed with other herbicides registered for non-crop use. It may also be tank mixed with any adjuvants registered for non-crop use. Refer to the label of the tank mixture partner(s) for any additional use instructions or restrictions.

**APPLICATION INFORMATION**

Apply SOLIDA Herbicide at 4.0 ounces broadcast per acre. Do not apply more than 4.0 ounces of SOLIDA Herbicide per acre per year.

For best preemergence and residual activity, SOLIDA Herbicide must be activated by rainfall and applied when soil temperatures are cool. Make applications to take advantage of normal rainfall patterns (minimum of 1/2 inch) and cooler temperatures. For best results, moisture for activation should occur within 2 to 3 weeks after application.

To help ensure uniform coverage, use a minimum of 10 gallons of spray solution per acre. Nozzle selection should meet manufacturer's spray volume and pressure recommendations for preemergence or postemergence herbicide applications.

SOLIDA Herbicide may be applied using ground or aerial spray equipment. Fixed wing aircraft and helicopters can be used to apply SOLIDA Herbicide; however, do not make applications by fixed wing aircraft unless appropriate buffer zones can be maintained to prevent spray drift out of the target area or, when treating open tracts of land, spray drift as a result of fixed wing aircraft application can be tolerated. Aerial equipment designed to minimize spray drift, such as helicopter equipped with a Microfoil™ boom or raindrop nozzles, must be used and calibrated. Except when applying with a Microfoil™ boom, a drift control agent may be added at the labeled rate.

**NON-CROPLAND RESTORATION**

SOLIDA Herbicide is labeled for the control of downy brome (cheatgrass), medusahead and certain broadleaf weeds in non-cropland. In order to release desirable, perennial grass species for site restoration, SOLIDA Herbicide may be applied at 3.0 to 4.0 ounces of product per acre in the fall, within 6 weeks before the expected date when the soil freezes. Use the higher rate for medusahead control.

To provide broader spectrum broadleaf weed control in non-crop land restoration, a tank mixture of SOLIDA Herbicide and chlorsulfuron may be used. Include chlorsulfuron at the use rate of 0.5 ounce per acre.

## USE PRECAUTIONS

Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to SOLIDA Herbicide may injure or kill most crops. Injury may be more severe when the crops are irrigated. Do not apply SOLIDA Herbicide when these conditions are identified and powdery, dry soil or light or sandy soil are known to be prevalent in the area to be treated.

Preemergence use on soils containing more than 6% organic matter may result in reduced weed control.

Avoid spray drift to any adjacent crops or planned crop planting areas or desirable plants since injury may occur.

Draining or flushing equipment on or near desirable trees or other plants or in areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots may injure these plants.

Crops (especially crops other than pome fruit, tree nuts, stone fruit, citrus, grapes, potatoes, tomatoes, and field corn) whose roots may extend into a treated area may be injured.

Where food and/or feed crops are grown, or in areas where food and/or feed crops are planned to be grown, care should be taken to prevent any direct spray of SOLIDA Herbicide onto, or drift to, these crops or planned planting areas since severe crop injury may occur.

Do not contaminate any body of water, including irrigation water that may be used on other crops. Do not apply in or on irrigation ditches or canals including their outer banks. Do not apply when the soil is frozen.

If non-crop sites treated with SOLIDA Herbicide are to be converted to an agriculture use, consult the SOLIDA Herbicide package label for all rotational crop instructions.

## ADDITIONAL USE INFORMATION – ALL CROPS AND USES

### MIXING INSTRUCTIONS

SOLIDA Herbicide must be completely dissolved in clean water before adding to spray tanks that do not have continuous agitation during loading and mixing. (This is common for airplanes with turbine engines).

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of SOLIDA Herbicide.
3. Continue agitation until the SOLIDA Herbicide is fully dissolved, at least 5 minutes.
4. Once the SOLIDA Herbicide is fully dissolved, maintain agitation and continue filling tank with water.
5. As the tank is filling, add tank mix partners (if desired) then add the required of spray adjuvant (if needed). Always add the spray adjuvant last.
6. Dispersed tank mix partners can settle if the tank mixture is not continually agitated. If settling occurs, thoroughly re-agitate before using.
7. Apply SOLIDA Herbicide spray mixture within 24 hours of mixing to avoid product

degradation.

- 8. If SOLIDA Herbicide and a tank mix partner are to be applied in multiple loads, fully dissolve the SOLIDA Herbicide in clean water prior to adding to the tank.

If the selected companion herbicide has a ground or surface water advisory, consider this advisory when using the companion herbicide.

**At the End of the Day**

After each day of spraying multiple loads of SOLIDA Herbicide, the interior of the tank should be rinsed with fresh water and then partially filled and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits from accumulating in the application equipment.

**After Spraying SOLIDA Herbicide and before Spraying Other Crops**

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

- 1. Empty the tank and drain the sump completely.
- 2. Spray the tank walls with clean water using a minimum volume of 10% of the tank volume. 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.
- 4. Remove the nozzles and screens and clean separately in a bucket containing water.

The rinsate solution may be applied back to the crop(s) listed on this label. Do not exceed the maximum labeled use rate. If 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 should be used to facilitate the removal of any caked deposits.
- 3. When SOLIDA 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. Follow any pre-cleanout guidelines specified on other product 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. Where states have more stringent regulations, they should be followed.

**IMPORTANCE OF DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets (>150-200 microns). 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 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 listed 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 3/4 of the wing or rotor length – longer booms increase drift potential.
- Application Height – Application more than 10 feet above the canopy increases the potential for spray drift.

**BOOM HEIGHT**

Set the boom at the lowest height that provides uniform coverage and 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 or 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) 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.

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

SOLIDA Herbicide is absorbed through the roots and foliage of plants, rapidly inhibiting the growth of susceptible weeds. For preemergence weed control, rainfall or sprinkler irrigation is needed to move SOLIDA Herbicide into the soil. Weeds will generally not emerge from preemergence applications. In some cases, susceptible weeds may germinate and emerge a few days after application, but growth then ceases and leaves become chlorotic (yellowish) three to five days after emergence. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive.

One to three weeks after postemergence application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive.

SOLIDA Herbicide provides the best control of weeds in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not provide satisfactory control. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of SOLIDA Herbicide may be less effective on weeds stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, weeds hardened-off by drought stress are less susceptible to SOLIDA Herbicide.

Postemergence weed control may be reduced if rainfall occurs soon after application. Several hours of dry weather are needed to allow SOLIDA Herbicide to be sufficiently absorbed by weed foliage (generally SOLIDA Herbicide is rainfast in 4 hours).

### **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 the field. Adequate control to 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.

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 representative for

specific alternative cultural practices or herbicide usage available in your area.

Naturally occurring weed biotypes that are resistant to Amber®, Accurate®, Report™, Report Extra™, Nuance™, Nimble™ will also be resistant to SOLIDA Herbicide.

**INTEGRATED PEST MANAGEMENT**

To better control pests, Cheminova recommends the use of Integrated Pest Management. SOLIDA Herbicide may be used as part of an Integrated Pest Management (IPM) program, which can include biological, cultural, and genetic practices, aimed at preventing economic pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for treating specific pest/crop or site systems in your area.

**PRECAUTIONS**

- Potato and tomato 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 to a small area.
- Preemergence use on soils containing more than 6% organic matter may not provide adequate soil-residual weed control and may result in reduced weed control.
- Preemergence and postemergence use on rill-irrigated potatoes and tomatoes (furrow or gravity) may not provide adequate weed control in the absence of rainfall.
- If sprinklers are used for frost protection, delay the application of SOLIDA Herbicide until stress from environmental conditions have passed.
- Avoid spray drift to any adjacent crops or desirable plants as injury may occur.
- Crop injury may occur following an application of SOLIDA Herbicide if there is a prolonged period of cold weather and/or cold weather in conjunction with wet soils caused by poor drainage or excessive use of sprinkler irrigation for frost protection.
- Draining or flushing equipment on or near desirable trees or other plants, or in areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots may injure these plants. Trees or other desirable plants whose roots extend into a treated crop use area may be injured.
- Do not contaminate any body of water, including irrigation water that may be used on the crops.
- For best results, maintain spray tank solution at pH 5 to 7.
- Do not apply to frozen or snow-covered soil. Crop injury may occur from applications made to poorly drained soils.
- If the selected companion herbicide has a ground or surface water advisory, consider the advisory when using the companion herbicide.
- Tank mixing SOLIDA Herbicide with organophosphate insecticides in tomatoes may result in crop injury.

**RESTRICTIONS**

- Injury to or loss of 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. Prevent drift of

- spray to desirable plants.
- Do not contaminate any body of water, including irrigation water that may be used on other crops.
- Carefully observe sprayer cleanup instructions, as spray tank residue may damage crops other than potatoes or tomatoes.
- Do not apply using Air Assisted (Air Blast) field-crop sprayers.

**WARRANTY DISCLAIMER**

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.

**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, at Cheminova's election, one of the following:

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

Cheminova shall not be liable for losses or damages resulting from handling or use of this product unless Cheminova is promptly notified of such loss or damage in writing. In no case shall Cheminova be liable for consequential or incidental 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.

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