# PM 23 1386-609 10-10-97 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OCT 1 0 1997

Ms. Nik Ramswick Universal Cooperatives, Inc. 7801 Metro Parkway P.O. Box 460 Minneapolis, MN 55440

Dear Ms. Ramswick:

SUBJECT:

Label Amendment Revising Text and Format As on DowElanco's Treflan HFP Label, Including a Master and Supplemental Labels

Trifluralin 4EC Herbicide

EPA Registration No. 1386-609

Your Application Dated September 12, 1997, as Amended On September 24, 1997

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, provided that you:

- 1. Add the signal word "WARNING" immediately below the "Hazards to Humans and Domestic Animals" heading.
- 2. Revise the last statement under "Hazards to Humans and Domestic Animals" to read as follows::
  - "Do not get in eyes or on clothing. Avoid breathing vapors or spray mist and contact with skin."
- 3. Delete the phrase "if irritation persists" from the ocular statement of practical treatment.
- 4. Delete the phrase "if irritation develops" from the dermal statement of practical treatment.
- 5. Correct the page numbering in the final printed labeling.
- 6. Insert the product name throughout the master and supplemental labels wherever "\*\*\*\*\*\*\*\*" appears.

RD:STANTON:PM Team 23:Rm. 237:CM-2:305-5218:Disk #6:S530779.LET

	-	-		NCURRENCES			
SYMBOL >	7505C				***************************************	 	**************************************
SURNAME >	S. Stanton	*4***************	****	*************************	,	 	***************************************
DATE >	Oct 10, 1997						

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

Stamped copies of the master label and supplemental labels are enclosed for your records. Submit one copy of the final printed labeling before you release the product for shipment.

Sincerely yours,

Joanne I. Miller Product Manager (23) Herbicide Branch Registration Division (7505C)

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Enclosures

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 1 0 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No. 1384-609

# TRIFLURALIN 4EC HERBICIDE

A Selective Herbicide for the Preemergence Control of Annual Grasses and Broadleaf Weeds

# KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende fa etiqueta, busque a algulen para que se la explique a usted en detalle. (Il you do not understand this tabel, find someone to explain it to you in detail.) REFER TO INSIDE OF LABEL BOOKLET FOR ADDITIONAL PRECAUTIONARY SYATEMENTS AND DISPOSAL.

#### ACTIVE INGREDIENT:

Trifluralin (a,a,a-trifluoro-2,6-dinitro-N, N-dipropyl-p-toluidine)... 43

57.0%

Total....
'Contains Petroleum Distillates. Contains & Pounds Trifluralin Per Gallon.

.. 100.0%

Net Contents: 2 1/2 Gallons

lter in Edi No.: A-1316-0H-7 B-32761-MQ-3 C-34704-MS-1 D-43750-MQ-1



Universal Cooperatives, Inc.

Minneapolis, MN 55440

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Castor Beans	4 .		
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Corn (Field Corn Only) Cottonwood Trees Grown for Pulp Cotton Crambe (See Rapeseed) Cucurbits Durum (See Small Grains section) Endive (See Chicory) Flax (Fall Application Only) Grain Sorghum (Milo) Grape (See Tree and Vine Crops section) Grapefruit (See Tree and Vine Crops section) Greens (Turnip greens, Collard, Kale and Mustard Greens) Guar (see Beans - Guar and Mungbean) Hops Kale (See Greens section) Kenaf Lemon (See Tree and Vine Crops section) Milo (See Grain Sorghum) Mustard (Grown for Seed or Processing for Food) Mustard Greens (See Greens section) Nectarine (See Tree and Vine Crops section) ,Okra Onions (Dry Bulbs Only) Orange (See Tree and Vine Crops section) Peach (See Tree and Vine Crops section) Peas (Dry and English Peas) Peas (Southern Peas) Peanuts Pecan (See Tree and Vine Crops section) Pepper (Transplant only) Plum (See Tree and Vine Crops section) Potatoes Prune (See Tree and Vine Crops section) Radish Rapeseed (Canola) and Crambe Safflower Small Grains (Barley, Durum and Wheat) Barley, Spring Seeded - Spring Application Preplant Incorporated for Foxtail (Pigeongrass) Control (For Use in Minnesota, North Dakota and South Dakota) Barley, Spring Seeded - Spring Application Preplant Incorporated for Foxtail (Pigeongrass) Control in Barley Used as a Cover Crop or in the Conservation Reserve Program Winter Wheat - Preplant Incorporated for Control of Cheatgrass and Other Annual Grasses and Broadleafs (For Use in Idaho, Oregon and Washington) Winter Wheat - Post Plant Incorporated (For Use in Idaho, Oregon and Washington) Winter Wheat - Fallow Soil Application Prior to Planting (For Use in Idaho, Oregon and Washington) Wheat, Durum and Barley - Spring Seeded - Fall Applied Preplant Soil Incorporated for Foxtail (Pigeongrass) Control (For Use in Minnesota, North Dakota, and South Dakota) Spring Wheat, Durum and Barley - Post Plant Incorporated for Foxtail (Pigeongrass) Control Sorghum (see Grain Sorghum)

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Soybeans
Sugar Beets
Sugarcane
Sunflower
Tangelo (See Tree and Vine Crops section)
Tangenne (See Tree and Vine Crops section)
Tomato
Tree and Vine Crops - Citrus, Fruit and Nut Trees and Vineyards:
New Plantings of Citrus Fruit and Nut Trees
New Plantings of Vineyards
Established Non-bearing and Bearing Citrus, Fruit and Nut Crops
Trees and Vineyards
Wheat (See Small Grains section)
Walnut (See Tree and Vine Crops section)

#### **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

Causes Substantial But Temporary Eye Injury • Harmful If Swallowed, Inhaled, Or Absorbed Through The Skin • \*\*\*\*\*\*\* May Cause Skin Sensitization Reactions In Certain Individuals

Avoid breathing vapors or spray mist and contact with skin, eyes, or clothing.

#### 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 G on an EPA chemical resistance category selections chart.

#### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Shoes plus socks
- · Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

#### **Engineering Controls Statements**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

Users should:

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

#### First Aid

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention if irritation persists.

If swallowed: Do not induce vomiting. Call a physician or Poison Control Center. If available, administer activated charcoal (6-8 heaping teaspoonfuls) with a large quantity of water. Do not induce vomiting or give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

If inhaled: Remove individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, give artificial respiration, preferably cardiopulmonary resuscitation assistance, and get medical attention immediately.

If on skin: Immediately wash with plenty of scap and water. Get medical attention if irritation develops. Note to physician: This product contains an aromatic hydrocarbon and can be extremely harmful if swallowed. Aspiration of this product may produce a severe pneumonitis. Stomach lavage with a cuffed endotracheal tube in place and immediate administration of activated charcoal, 6 to 8 heaping teaspoonfuls with water, should be considered. Treatment is otherwise symptomatic and supportive.

For Medical Emergency Information call 1-800-228-5635, extension 138.

#### **Environmental Hazards**

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff from treatment areas may be hazardous to aquatic organisms in neighboring aquatic sites. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Exception: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Shoes plus socks
- Protective eyewear



#### Storage and Disposal

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

Storage: Store in original container only. Avoid freezing. Store above 40°F. If frozen, poor weed control may result. Do not store near heat or flame. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

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

Plastic Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Bulk/Mini-bulk Tank Cleaning: Triple rinse (or equivalent) and wash with appropriate cleaners before reusing.

#### **General Information**

#### General Use Precautions

Do not apply \*\*\*\*\*\*\* to soils that are wet or are subject to prolonged periods of flooding as poor weed control may result.

Do not use \*\*\*\*\*\*\* on any crop grown in Pecos county or Reeves county, Texas.

In Montana, uses of \*\*\*\*\*\*\* are limited to those described in supplemental labeling. Refer to supplemental labeling for crops and specific use directions.

Chemigation: \*\*\*\*\*\*\*\*\* may be applied by chemigation on certain crops. See instructions for chemigation in the "Application Methods" section of this label. Also, see specific instructions for certain crops in the "Approved Crops" section of this label.

#### **Rotation Crop Restrictions**

Sugar beets, Red beets, and Spinach

In all other areas: Sugar beets, red beets, and spinach should not be planted for 12 months after a spring application or 14 months after a fall application. Before planting sugar beets, moldboard plow to a depth of 12 inches to reduce the possibility of crop injury.

Proso Millet, Corn, Sorghum (Milo), Oats, and Annual or Perennial Grass Crops or Grass Mixtures

In Minnesota, North Dakota, and South Dakota: Unless crop injury is acceptable, proso millet, sorghum (milo), oats, and annual or perennial grass crops or grass mixtures should not be planted for 18 months after a spring application or 21 months after a fall application of

In those portions of Kansas, Nebraska, Oklahoma, and Texas that receive less than 20 inches of rainfall and irrigation to produce a crop: Unless crop injury is acceptable, do not plant proso millet, sorghum milo), oats and annual or perennial grass crops or grass mixtures for 18 months after an application of \*\*\*\*\*\*\*\*\*\*\*\*\* In sorghum, cool, wet weather conditions during early growth stages may increase the possibility of crop injury.

All other areas receiving more than 20 inches of rainfall and irrigation: Unless crop injury is acceptable, do not plant proso millet, sorghum (milo), oats, and annual or perennial grass crops or grass mixtures for 12 months after a spring application or 14 months after a fall application of

#### Other Crops

√egetable crops, other than those to which ★★★★★★★★ may be applied as a preplant soil incorporated treatment, should not be planted within 5 months after an application of ★★★★★★★★★ .

#### Soil Texture Guide for Application Rates

Rate recommendations for incorporated treatments of \*\*\*\*\*\*\* are based on "Soil Texture Class" (coarse, medium, or fine) and soil organic matter content. A fine textured soil (e.g., clay loam) will require a higher application rate than a coarse textured soil (e.g., loamy sand). In the table below, find the "Soil Texture Class" (coarse, medium, or fine) corresponding to the "Soil Texture to be Treated". Choose the proper rate for each application based on the "Soil Texture Class" and specific crop recommendations, Do not exceed recommended rates.

Soil Texture Class	Soil Texture to be Treated	
Coarse (Light) Soils	Sand, loamy sand, sandy loam	
Medium Soils	Loam, silty clay loam <sup>†</sup> , silt loam, silt, sandy clay loam <sup>†</sup>	
Fine (Heavy) Soils	Clay, clay loam, silty clay loam <sup>†</sup> , silty clay, sandy clay, sandy clay loam <sup>†</sup>	

<sup>&</sup>lt;sup>†</sup>Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loam soils are predominantly sand or silt, they are usually classified as medium textured soils. If they are predominantly clay, they are usually classified as fine textured soils.

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#### Mixing Directions

#### \*\*\*\*\* - Alone

Fill spray tank 1/3 to 1/2 full with clean water or liquid fertilizer. Start agitation. Add correct amount of

Precaution: Do not allow water or spray mixture to back-siphon into a water source.

#### \*\*\*\*\*\* in Tank Mix

Vigorous, continuous agitation during mixing, filling, and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture. To prevent foaming during fifing, keep end of fill pipe below the surface of the liquid in the spray tank.

Mixing Order: Fill the spray tank to 1/4 to 1/3 of the total spray volume required. Start agitation. Add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dry flowable products.

Add different formulation types in the following order: Dry flowables (DF); wettable powders (WP); aqueous suspensions (AS), flowables (F) and fiquids (L).

Maintain agitation and fill spray tank to 3/4 of total spray volume. Add \*\*\*\*\*\*\*\*\* and other emulsifiable concentrates (EC) and any solutions (S).

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling, and throughout 'application. If spraying/agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

#### Precautions:

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Read and carefully follow all label instructions for each material added to the spray tank. Do not allow water or spray mixture to back-siphon into a water source.

Premixing: Dry and flowable formulations may be premixed with water (slurned) and added to the spray tank through a 20 to 35 mesh screen. This procedure assures good initial dispersion of these products in liquid fertilizer or water.

Line screens in the spray tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

#### **Testing for Compatibility in Liquid Fertilizers**

\*\*\*\*\*\*\*\* alone or in tank mix combination with dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) may not combine properly with some liquid fertilizer materials. Small quantities should always be tested before full scale mixing. Follow the testing procedure below to determine if a compatibility agent is needed. If required, use only a phosphate estertype surfactant designed for use with liquid fertilizers. Such compatibility agents can be mixed at rates as low as 1.5 to 2.0 pints per ton of liquid fertilizer. Add the compatibility agent just before adding pesticides.

#### **Testing Procedure**

1. Add 1 pint of the liquid fertilizer to a quart jar.

2. Add 1 to 4 teaspoons of the DF, WP, AS, F, or L formulation (depending on mixing ratio required) to the liquid fertilizer. Close the jar and agitate until the materials are evenly dispersed in the liquid fertilizer. If the materials do not disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.

3. After dispersing the materials (step 2) add 3 to 4 teaspoons of \*\*\*\*\*\*\*\*\*\*\* and other EC formulations to the jar and shake well. Add solution herbicides to the mixture last and agitate. Observe the jar for about 10 minutes. If materials rise to the surface and form a thick layer (oily curds) that will not redisperse when agitated, a compatibility agent is needed. If the mixture is easily redispersed with slight agitation, a compatibility agent is not required. Good agitation, however, must be provided to maintain dispersion in the spray tank.

4. If the need for a compatibility agent is demonstrated (step 3) the following procedure is recommended: Using a clean quart jar repeat step 1 above and add 1/2 teaspoon of the compatibility agent to the liquid fertilizer. Mix well and then repeat steps 2 and 3.

An effective compatibility agent will cause the mixture to remain uniformly dispersed with little or no separation (oil rising to the surface) for 1/2 hour or longer. If slight separation occurs, 2 to 3 inversions of the jar should be sufficient to uniformly redisperse the mixture. If oily curds form and will not redisperse, additional compatibility agent or an alternative compatibility agent should be tried.

Use a clean jar for each test. A compatible mixture will have a uniform appearance and will be relatively easy to redisperse with gentle agitation of the jar.

Note: Compliance with state regulations for liquid fertilizer mixing, registration, labeling, and application are the responsibility of the individual and/or company offering the fertilizer or chemical mixture for sale.

#### **Application Methods**

#### General

As spray volume decreases, the importance of accurate calibration and uniform application increases. Check calibration and uniformity of spray application daily. To avoid spray drift, do not apply when winds are gusting or when wind speed is greater than 15 mph.

Ground Broadcast Application

Apply \*\*\*\*\*\*\*\* in 5 to 40 gallons of liquid carrier per acre (broadcast basis), using any properly calibrated, low pressure herbicide sprayer that will apply the spray uniformly. The carrier may be water or liquid fertilizer as specified for the crop to be treated in the "Approved Crops" section of this label. For band application, adjust herbicide rate and spray volume in proportion to the band width and row width treated.

**Aerial Broadcast Application** 

Apply \*\*\*\*\*\*\*\* in 5 to 10 gallons of water per acre. Adjust pump pressure, nozzle arrangements, speed, and application height to provide uniform application to the soil surface. Use swath markers or flaggers to assure proper swath width interval.

Application with Dry Bulk Fertilizer

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Use the following formula to calculate the amount of \*\*\*\*\*\*\*\*\*required to impregnate a ton of dry bulk fertilizer.

Pints \*\*\*\*\*\*\* 1000 Quarts \*\*\*\*\*\*\*\*

Per Acre X = Per Ton of

Pounds Fertilizer

Per Acre

Limitations: Apply a minimum of 200 lb/acre of dry fertilizer impregnated with \*\*\*\*\*\*\*\* at the recommended broadcast rate per acre. Any commonly used dry fertilizer can be used for impregnation with \*\*\*\*\*\*\* except coated ammonium nitrate and pure limestone. These materials will not absorb the herbicide. Blends containing mixtures of these materials can be impregnated.

Impregnation: Use any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to apply \*\*\*\*\*\*\*\*\* to dry bulk fertilizer should be placed to provide uniform spray coverage.

Application and Incorporation: Spread the fertilizer/chemical mixture with properly calibrated application equipment. Be certain the material is applied uniformly to the soil surface. Dry bulk fertilizer impregnated with \*\*\*\*\*\*\*\*\*\*\*\*\*\* must be incorporated 2 times. The first incorporation should occur within 24 hours after application. The second incorporation should be delayed a minimum of 5 days after the first and be completed prior to planting.

Compliance with State Regulations: Compliance with state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company offering the fertilizer or chemical mixture for sale.

#### Application by Chemigation

#### **General Chemigation Directions:**

Apply this product only through continuously moving center pivot, lateral move end tow, solid set, or hand move irrigation systems, or certain other systems described in EPA-accepted supplemental labeling.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of chemigation treated water.

If you have questions about calibration you should contact state extension specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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#### Sprinkler Chemigation Directions:

The following directions must be followed for all recommended sprinkler irrigation systems (center pivot, lateral move, or end tow):

- 1. The 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 back-flow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. 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.
- 4. 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 which will stop the water pump motor when the water pressure decreases to the point that pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a 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.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8. \*\*\*\*\*\*\*\*\*\* should be injected continuously throughout the chemigation period. The chemigation metering pump should be checked periodically during application to insure proper operation.
- 9. The injection metering pump must be calibrated as specified by the manufacturer.
- 10. Pesticide injection hoses which connect chemigation metering equipment to the sprinkler irrigation system should be of braided reinforced construction with an internal tube made of nylon, cross-linked polyethylene, or high density polyethylene.
- 11. \*\*\*\*\*\* may cause staining of plastic hoses and tanks.
- 12. Apply \*\*\*\*\*\*\* in sprinkler irrigation equal to 1/2 to 1 inch of water.
- 13. During chemigation, maintain agitation in supply tank at all times.

#### Chemigation System Calibration:

Sample calculation for use of \*\*\*\*\*\*\* in a chemigation system:

- Assume, in this example, 133 acres are to be covered by a chemigation treatment.
- Product required, assuming 1.5 pints per acre is 199.5 pints (133 acres X 1.5 pt/acre = 199.5 pt = 25 gallons)
- Add 25 gallons of product directly to the injection supply tank.
- Adjust the injection system to deliver 25 gallons during the time required to apply 1 inch of water to 133 acres.

If the irrigation system requires 20 hours to apply 1 inch of water to 133 acres, the injection rate is 1.25 gal/hr and is calculated as follows:

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• 25 gal ÷ 20 hr = 1.25 gal/hr
1.25 gal/hr = 160 fl oz/hr
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Proper calibration requires the injection pump to be adjusted to deliver 2.7 fl oz/min and is calculated as follows:

160 fl oz/hr ÷ 60 min./hr = 2.7 fl oz per min.

#### Chemigation Mixing Directions:

Undiluted \*\*\*\*\*\*\*\*\* When used alone, the injection of undiluted \*\*\*\*\*\*\* is recommended in chemigation systems. For undiluted use, the metering pump, supply tank, and any associated equipment must be thoroughly clean and dry before \*\*\*\*\*\*\* is added to the system for injection. When injecting undiluted \*\*\*\*\*\*\*\*\*\*, maintain continuous agitation in the supply tank.

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#### **Application Timing**

**Spring Application** 

Apply and incorporate \*\*\*\*\*\*\*\*\* any time after January 1 when soil can be worked and is in a condition which allows thorough mixing to insure uniform incorporation. See "Approved Crops" section for application timing recommendations for specific crops.

Fall Application

Fall application can be used for all crops for which \*\*\*\*\*\*\*\* is recommended as a preplant incorporated treatment. Refer to "Approved Crops" section for any crop specific fall application instructions.

In the states of California, North Dakota, South Dakota and Minnesota, apply and incorporate \*\*\*\*\*\*\*\*\*\*\* any time between September 1 and December 31. In all other states, fall apply \*\*\*\*\*\*\*\* between October 15 and December 31.

Ground may be bedded up over winter. On bedded ground, reduce beds to desired height before planting, by moving some treated soil from beds into furrows. Where soil is left flat over winter, care should be taken not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. Weeds established in furrows as a result of exposing untreated soil should be destroyed before planting. Fall application of \*\*\*\*\*\*\*\*\*\*\* is not recommended on fields which remain wet or are subject to periods of flooding.

Preemergence Application Immediately After Planting

Apply and incorporate \*\*\*\*\*\*\*\* immediately after planting and prior to crop germination. Adjust incorporation equipment so as to not disturb planted seed. Refer to the "Approved Crops" section of this label for crop specific instructions.

Postemergence and Layby Application

Apply and incorporate \*\*\*\*\*\*\*\* at the recommended rate to the established crop at or before the fast cultivation. Required preharvest intervals for treatments with \*\*\*\*\*\*\*\* for certain crops are specified in the "Approved Crops" section of this label. Crop cover may prevent uniform soil coverage from over-the-top sprays. To avoid this problem, use drop nozzles or directed sprays to achieve uniform soil coverage.

#### Incorporation Directions

Soil Preparation and Incorporation

Ground cover or existing weeds, can interfere with uniform soil incorporation of \*\*\*\*\*\*\*\*\*\*. A manageable level of ground cover will allow uniform incorporation into the top 2 to 3 inches of the final seedbed. Ground cover and crop residues, if excessive, should be reduced by appropriate soil tillage prior to application.

\*\*\*\*\*\*\*\*\*\* must be incorporated within 24 hours after application unless otherwise specified on supplemental labeling. Non-uniform application may result in erratic weed control or crop injury. With most equipment and methods of application, a second incorporation is required and may occur any time before planting. The second incorporation should be in a different direction, and to avoid bringing untreated soil to the surface, should not be deeper than the first. Note: Two-pass incorporation is required for all special use programs unless otherwise specified.

General Soil Conditions: The soil surface should be smooth enough to allow for uniform application and efficient incorporation of \*\*\*\*\*\*\*\*\*\*. Break up clods using tillage equipment prior to application of \*\*\*\*\*\*\*\*\*\*. Apply when soil moisture is sufficient to allow the breakup of large clods and uniform mixing during the incorporation process. Soil compaction and/or non-uniform incorporation may occur if soil is excessively moist.

Incorporation in Bedded Culture: In bedded culture, \*\*\*\*\*\*\* should be incorporated to a depth of 2 to 3 inches in the final seedbed.

Application Prior to Bedding: Apply \*\*\*\*\*\*\*\*\* and incorporate 1 time with recommended equipment. The bedding operation serves as the second incorporation. Do not expose untreated soil during post-bedding operations such as planting since removal of treated soil during planting can allow weed germination and establishment in the drill row.

Application After Bedding: Knock off beds to planting height before applying \*\*\*\*\*\*\*\*\*\*. Apply and incorporate \*\*\*\*\*\*\*\*\* with recommended equipment that will conform to the shape of the bed. Do not expose untreated soil.

Cultivation After Planting: Treated crops may be shallowly cultivated without reducing the weed control activity of \*\*\*\*\*\*\*\*\*\*. Limit depth of cultivation to the zone of treated soil to avoid moving untreated soil to the surface. Exposure of untreated soil may cause loss of weed control.

#### Incorporation Equipment

approximately half as deep as the equipment is set to operate. For example, a disc set to cut 4 inches deep will mix most of the \*\*\*\*\*\*\*\*\*\*\* within the top 2 inches of soil. Any recommended incorporation implement may be used alone or in combination with any other recommended implement. Two incorporation passes are required when using the following incorporation implements (for single pass incorporation, refer to soil conditions and equipment listed under Single Pass Incorporation Option below):

Tandem Disc: Set equipment to cut 4 to 6 inches deep and operate at 4 to 6 mph.

Rolling Cultivator: Set equipment to cut 2 to 4 inches deep and operate at 6 to 8 mph.

Bed Conditioner (Do-All): Set equipment to cut 2 to 4 inches deep and operate at 4 to 6 mph. One incorporation pass is adequate in bedded culture, while 2 incorporation passes are required in flat planted culture. The Do-All should be used only on coarse and medium textured soils.

Mulch Treader and other similar disc-type implements: Set equipment to cut 3 to 4 inches deep and operate at 5 to 8 mph.

Other Equipment: Other implements including the flexible tine-tooth harrow (Flextine or Melroe), are recommended, but only for certain uses defined in the "Approved Crops" section of this label.

#### Single Pass Incorporation Option

\*\*\*\*\*\*\* may be incorporated in a single pass if incorporation conditions allow for thorough and uniform mixing into the top 2 to 3 inches of the final seedbed. Thorough and uniform incorporation may be achieved if the soil at the time of incorporation is of good tilth with moderate moisture, and is relatively free of clods and crop residue. The following types of equipment can be used to obtain thorough and uniform soil mixing from a single incorporation pass:

Finishing Disc with disc blades no greater than 22 inches in diameter, spaced no more than 7 1/2 inches apart. Operate at 4 to 6 mph. Best results are obtained when the disc is equipped with harrow, reel, or basket attachments.

Field Cultivator: Set equipment to cut 3 to 4 inches deep and operate at a minimum of 5 mph. A field cultivator is defined as an implement with 3 to 4 rows of sweeps, spaced at intervals of 7 inches or less with sweeps on successive rows staggered so that no soil is left unturned. Chisel points should not be used. Best results are obtained when the field cultivator is equipped with harrow, reel, or basket attachments.

Combination Implements: These implements are defined as 2 or more tillage devices combined to operate as a single tillage unit. For example, 2 to 3 rows of field cultivator C- or S-shaped shanks with successive rows of sweeps staggered so that no soil is left unturned, followed by a spike-tooth or flextine harrow, followed by ground driven reel, basket or incorporator wheels. Combination implements should be set to cut 3 to 4 inches deep and operated at a minimum of 6 mph. Two incorporations are recommended under conditions which prevent optimum soil mixing such as excessive surface residue, roughness, high clay content or soil is too wet or too dry. Combination tools can also be composed of 2 rows of wide crown sweeps that overlap so that the roots of all weeds and plants are severed. This should be followed by 2 gangs of rotating spoked wheels that thoroughly mix \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* into the top 2 to 3 inches of the final seedbed.

P.T.O.-Driven Equipment (tillers, cultivators, hoes): Adjust equipment to incorporate \*\*\*\*\*\*\*\*\*\*\* into the top 2 to 3 inches of the final seedbed with rotors spaced to provide a clean sweep of the soil. P.T.O. equipment should not be operated more than 4 mph.

#### Weeds Controlled by \*\*\*\*\*\*\*\*

#### **Grass Weeds**

Common Name Scientific Name annual bluegrass Poa annua

barnyardgrass Echinochloa crus-galli.

(watergrass)

brachiaria Brachiaria spp. (signalgrass)

bromegrass Bromus tectorum (cheatgrass)

(downy brome)
cheat Bromus secalinus

(chess)

crabgrass Digitaria spp. (large crabgrass)

(smooth crabgrass)

foxtail Setaria spp. (bottlegrass) (bristlegrass) (giant foxtail) (green foxtail) (foxtail millet) (pigeongrass) (robust foxtail) (yellow foxtail) Panicum maximum guineagrass (See special instructions for control in sugarcane in the "Approved Crops" section.) Rottboellia exaltata itchgrass (raoulgrass) (See special instructions for control in sugarcane in the "Approved Crops" section.) Sorghum halepense johnsongrass (from seed) (rhizome - see special instructions for control in cotton, soybeans, fruit and nut crops and vineyards in " the "Approved Crops" section.) Echinochloa colonum junglerice panicum Panicum fall panicum dichotomiflorum (spreading panicgrass - see special instructions for control in cotton and soybeans in the "Approved Crops" section.) ryegrass, Italian Lolium multiflorum (annual ryegrass) Panicum texanum Texas panicum (buffalograss) (Coloradograss) red rice Oryza sativa (See special instructions for suppression or partial control in soybeans in the "Approved Crops" section.) sandbur Cenchrus incertus (burgrass) Leptochloa filiformis sprangletop Eragrostis cilianensis stinkgrass (lovegrass) shattercane Sorghum bicolor (wild cane) (See special instructions for control in soybeans in the "Approved Crops" section.) Eriochloa villosa woolly cupgrass

#### **Broadleaf Weeds**

pigweed

**Common Name** Scientific Name Mollugo verticillata carpetweed chickweed Stellaria media Convolvulus arvensis field bindweed (See special instructions for control in fruit and nut crops and vineyards in the "Approved Crops" section.) Chenopodium hybridum goosefoot henbit Lamium amplexicaule knotweed Polygonum aviculare Kochia scoparia kochia (fireweed) (Mexican fireweed) lambsquarters, common Chenopodium album

Amaranthus spp.

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(carelessweed)
    (Palmer amaranth) ††
    (prostrate pigweed)
    (redroot)
    (rough pigweed)
    (spiny pigweed)
    (See special instructions for control in soybeans in "Approved Crops" section.)
                                Tribulus terrestris
puncturevine
    (Western U.S. only)
    (caltrop)
    (goatweed)
purslane, common
                                Portulaca oleracea
                                Richardia scabra
pusley, Florida
    (Florida purslane)
    (Mexican clover)
    (pusley)
                                Salsola iberica
Russian thistle
    (tumbleweed)
                                Urtica dioica
stinging nettle
    (nettle)
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††Suppression only in areas of the Southwest U.S. where tolerance to trifluralin has been observed.

Consult your local extension service representative for information regarding alternative weed control practices.

#### Special Use Programs

\*\*\*\*\*\*\* is approved for the following special use programs. Refer to "Approved Crops" section of this label for details on soil preparation, use rates, application, soil incorporation, and precautions for each type or program.

1.

#### Cotton

- Chemigation
- Weed Control in Conservation Tillage
- · Fall Panicum Control
- Pigweed and Seedling Johnsongrass Control
- Additional Weed and Grass Control (Gulf Coast Counties of Texas)
- Rhizome Johnsongrass Control

#### Soybeans

- Chemigation
- Weed Control Under Reduced or Conservation Tillage
- Fall Panicum Control
- · Pigweed and Seedling Johnsongrass Control
- Additional Weed and Grass Control (Gulf Coast Counties of Texas)
- Itchgrass (Raoulgrass) Suppression
- · Charcoal Soils in Arkansas, Louisiana, and Mississippi
- Red Rice Control in Arkansas, Louisiana, Mississippi, and Texas
- Rhizome Johnsongrass Control in Eastern United States and the State of Texas
- · Wild Cane (Shattercane) Control

#### Fruit and Nut Crops and Vineyards

- Rhizome Johnsongrass Control
- Field Bindweed Control

#### **Approved Crops**

#### **ALFALFA - ESTABLISHED**

#### Mechanically Incorporated

Apply \*\*\*\*\*\*\* with ground or aerial equipment and mechanically incorporate prior to weed emergence to control weeds listed in the "General Information" section of this label. Use mechanical incorporation equipment that will insure thorough soil mixing with minimal damage to crop stand.

**Broadcast Application Rates/Acre:** 

Soil Texture	******
	(pints)
Coarse	1.5
Medium	2.0
Fine	2.0

#### Surface Applications (Chemigation or Water Incorporated)

\*\*\*\*\*\* may be surface applied for annual grass control in established alfalfa by chemigation, or ground or aerial broadcast application equipment.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
All Soil Textures	4.0

#### Chemigation

Refer to "Application by Chemigation" section in the "General Information" section of this label for use directions for chemigation.

#### Surface Applications Activated by Rainfall or Irrigation

#### **Application Timing and Weeds Controlled**

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The following weeds are controlled when \*\*\*\*\*\*\*\* is applied by chemigation or surface applied and incorporated by rainfall or irrigation:

barnyardgrass crabgrass
bromegrass cupgrass
(cheatgrass) foxtail
(downy brome) junglerice
(cheat) sandbur

canarygrass

(chess)

#### Precautions:

Do not cut or graze alfalfa within 21 days after application of \*\*\*\*\*\*\*\*

wildbarley

Apply no more than 4.0 pints of \*\*\*\*\*\*\*\*\* during any growing season. In the growing season following application of 4.0 pints of \*\*\*\*\*\*\*\*\*\* to alfalfa, plant only those crops for which \*\*\*\*\*\*\*\*\* is registered as a preplant treatment or crop injury may occur.

#### Tank Mixing

Other products registered for use on established alfalfa may be applied in tank mix combination with \*\*\*\*\*\*\*\*\*\* or applied as sequential treatments following application of \*\*\*\*\*\*\*\*\* Tank mixes containing \*\*\*\*\*\*\*\*\*\* must be applied by ground broadcast when alfalfa is dormant or semi-dormant, or immediately after a cutting.

Precautions: Follow the label "Directions for Use" of each tank mix partner for applicable use instructions including application rate, application timing, weeds controlled, and specific precautions and restrictions of product use. See detailed information for tank mixing in the "General Information" section of this label.

#### ASPARAGUS - ESTABLISHED

Apply \*\*\*\*\*\*\* to established asparagus as a single or split application. \*\*\*\*\*\*\* will suppress volunteer seedling asparagus and field bindweed when applied as directed. Follow recommended soil preparation, application, and incorporation procedures for \*\*\*\*\*\*\*\*\*\*

#### Application Timing

Make applications to dormant asparagus in winter or early spring after mature ferns have been removed. Do not apply after new spears begin to emerge. Apply post-harvest applications immediately after harvest in late spring or early summer just before ferns are allowed to develop.

**Broadcast Application Rates/Acre:** 

	*****		
:	Split Application	Single Application	
	Before and	Before or	
Soil Texture	After Harvest	After Harvest	
	(pints)	(pints)	
Coarse	1.0 + 1.0	2.0	
Medium	1.5 + 1.5	3.0	
Fine	2.0 + 2.0	4.0	

• Do not apply more than 2.0 pt/acre on coarse soils, 3.0 pt/acre on medium soils or 4.0 pt/acre on fine soils during any calendar year.

BEANS - ALL DRY AND FRESH BEANS/PEAS (EXCEPT BEANS/PEAS LISTED ELSEWHERE ON THIS LABEL)

<del>\*\*\*\*\*\*</del>

- Alone

Apply and incorporate \*\*\*\*\*\*\* in the spring before planting or in the fall in advance of spring planting. See instructions for fall application of \*\*\*\*\*\*\*\*\* under the heading "Application Timing" in the "General Information" section of this label.

**Broadcast Application Rates/Acre:** 

Soil Texture	*****
Coarse	(pints) 1.0
Medium	1.0 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to-10% organic matter 2.0 pints
- · Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### **Tank Mixing or Sequential Treatments**

#### **BEANS - GUAR AND MUNGBEAN**

Apply \*\*\*\*\*\*\*\* as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.5
Fine	1.5

All soils with 2% to 5% organic matter - 1.5 pints

#### BEANS - LIMA BEAN AND SNAP BEAN

Apply \*\*\*\*\*\* as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.0
Fine	1.5

• All soils with 2% to 5% organic matter - 1.5 pints

#### CARROT

Apply \*\*\*\*\*\*\* as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- · Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- · Soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### **CASTOR BEAN**

Apply \*\*\*\*\*\*\*\*\*\* as a soil incorporated treatment, before or immediately after planting. If applied and incorporated after planting, set equipment so as to not disturb the seed.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### **CELERY**

Apply \*\*\*\*\*\*\*\* may be applied to direct seeded or transplant celery before planting, at planting, or immediately after planting.

Broadcast Application Rates/Acre:

Soil Texture	*******	
	(pints)	
Coarse	1.0	
Medium	1.25 - 1.5	
Fine	1.5 - 2.0	

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

CHICORY (Cichorium intybus or Cichorium endiva)

\*\*\*\*\*\* may be applied as a preplant incorporated treatment to chicory grown either as a root crop or leafy vegetable as indicated below:

Cichorium intybus, considered to be a root crop, may yield the following:

- Chicory the dried and processed root used as a coffee substitute.
- Radicchio green leaves harvested from field grown plantings.
- Belgian Endive white leaves grown in the dark; growth from field grown rootstalks.

Cichorium endiva, considered to be a leafy vegetable, may yield the following:

- Escarole curly green leaves from field grown plantings.
- · Endive very curly green leaves from field grown plantings.

Apply \*\*\*\*\*\*\*\* as a soil incorporated treatment in spring or early summer prior to planting.

Broadcast Application Rates per Acre:

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.5
Fine	2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- · Soils with 5% to 10% organic matter 2.0 pints

### COLE CROPS - BROCCOLI, BRUSSELS SPROUTS, CABBAGE, AND CAULIFLOWER

#### **Direct Seeded Cole Crops**

Apply \*\*\*\*\*\*\* as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.0
Fine	1.5

• Soils with 2% to 5% organic matter - 1.5 pints

Precaution: Direct seeded cole crops exhibit marginal tolerance to higher than recommended rates of \*\*\*\*\*\*\*\*\* • Stunting or reduced stands may occur.

#### **Transplanted Cole Crops**

Apply and incorporate \*\*\*\*\*\* prior to transplanting.

Broadcast Application Rates/Acre:

Soil Texture	******	
	(pints)	
Coarse	1.0	
Medium	1.25 - 1.5	
Fine	1.5 - 2.0	

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter- 2.0 pints
- Soils with 5% to 10% organic matter 2.0 pints

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• Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### **CORN - FIELD CORN ONLY**

#### Postemergence Incorporated Treatment

#### Incorporation Directions

Applications of \*\*\*\*\*\*\*\*\*\*must be mechanically incorporated within 24 hours. Mechanical incorporation may be accomplished with 1 pass of a sweep-type cultivator or properly adjusted rolling cultivator. The sweep-type cultivator should have 3 to 5 sweeps per row middle and be operated at a speed that will provide vigorous soil mixing. Set middle sweeps so as to avoid exposing untreated soil. Adjust incorporation equipment so as to avoid mechanical injury to the crop.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	0.75 - 1.0†
Medium	1.25 - 1.5
Fine	1.5 - 2.0

<sup>†</sup>Apply 1.0 to 1.5 pt/acre on coarse soils in Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia to control fall panicum and Texas panicum.

Apply lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### Precautions:

- Do not apply to sweet corn, popcorn, or corn grown for seed.
- Do not apply \*\*\*\*\*\*\*\* to corn as a preplant or preemergence treatment or crop injury may occur.

Restriction: Do not apply \*\*\*\*\*\*\* within 6 weeks prior to harvesting forage, fodder, or silage, or after com is 30 inches tall.

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Chemigation

\*\*\*\*\*\*\* may be applied through properly equipped chemigation systems for weed control in field corn. Refer to "Application by Chemigation" section in the "General Information" section of this label for chemigation use directions. Do not apply \*\*\*\*\*\*\* through any type of irrigation system unless these directions are carefully followed.

**Application Timing** 

Apply \*\*\*\*\*\*\*\* in 1/2 to 1 acre inch of sprinkler irrigation when field corn is at the 2 true leaf stage of growth or taller. Apply \*\*\*\*\*\*\*\*\*\* prior to weed emergence or after existing weeds have been controlled with herbicides or cultivation. \*\*\*\*\*\*\*\*\*\*\* does not control established weeds.

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
Coarse	1.5 - 2.0
Medium	1.5 - 2.0
Fine	Do not apply *****
	by chemigation
	to fine textured soils.

#### Precautions:

- Do not apply \*\*\*\*\*\*\*\*\* by chemigation to sweet corn, popcom, or corn grown for seed.
- Where corn is planted in a furrow, \*\*\*\*\*\*\* should be applied only after a cultivation to move soil into the row.
- Do not apply \*\*\*\*\*\*\* to corn as a preplant or preemergence treatment as crop injury may occur.

Restriction: Do not apply \*\*\*\*\*\*\*\*\* within 6 weeks prior to harvesting forage, fodder, or silage, or after corn is 30 inches tall.

#### COTTON

#### \*\*\*\*\*\* - Alone

Apply \*\*\*\*\*\*\* to cotton as a soil incorporated treatment. \*\*\*\*\*\*\* may be applied before planting, immediately after planting, to the established crop up to layby (See supplemental labeling for postemergence applications), or in the fall in advance of spring planting. Refer to instructions for fall application under "Application Timing" in the "General Information" section of this label. Follow recommended soil preparation, application and incorporation procedures in the "General Information" section of this label. When incorporating \*\*\*\*\*\*\* after planting, but prior to crop emergence, set equipment so as to not disturb planted seed.

Broadcast Application Rates/Acre:

	*****		
		Fall Ap	olication
Soil Texture	Spring Application <sup>†</sup>	Eastern U.S. ††	Western U.S. †††
	(pints)	(pints)	(pints)
Coarse	1.0	2.0	1.5
Medium	1.25 - 1.5	2.0	2.0
Fine	1.5 - 2.0	2.5	2.5

#### †Spring Application:

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 to 2.5 pints
- Use lower rate in rate range for areas receiving less than 20 inches of total annual rainfall and irrigation.

††Fall application rates for eastern cotton producing areas, including: Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri (Bootheel), North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee, and Texas.

†††Fall application rates for western cotton producing areas, including: Arizona and California.

For cotton grown in states other than those listed above, fall apply at the highest broadcast rates for each soil texture under spring application.

**Precautions:** Cotton should be planted after early season adverse weather conditions have passed, especially when using higher rate programs. Cool, wet weather early in the growth cycle causes additional stress to the cotton plant. This may result in reduced stand, delayed maturity, and reduced yields.

#### Tank Mixing or Sequential Treatments

#### **Special Use Programs**

#### 1. Cotton - Chemigation

}

\*\*\*\*\*\*\* may be applied through properly equipped chemigation systems for weed control in cotton. Refer to "Application by Chemigation" in the "General Information" section of this label for use directions for chemigation. Do not apply \*\*\*\*\*\*\* through any type of irrigation system unless these directions are carefully followed.

Apply\*\*\*\*\*\*\* in overhead sprinkler irrigation equal to 1/2 to 1 inch of water. Planting and application should occur as soon as possible after the last tillage operation. \*\*\*\*\*\*\*\* must be applied within 2 days after planting prior to crop emergence. \*\*\*\*\*\*\*\*\*\*\* does not control established weeds. Soil incorporation is not required when \*\*\*\*\*\*\*\*\*\*\* is applied through chemigation systems.

**Cultivation:** Soil treated by chemigation with \*\*\*\*\*\*\*\*may be shallow cultivated without reducing weed control activity.

Broadcast Application Rates/Acre for Chemigation Application Where Minimum Tillage Practices are Used:

Soil Texture	******
	(pints)
Coarse	1.0 - 3.0
Medium	1.5 - 4.0
Fine	2.0 - 4.0

Use the lower rate in the rate range when additional sequential applications of \*\*\*\*\* are anticipated. Use the higher rate in the rate range when high crop residue levels are present, where dense weed populations are anticipated, or where no additional sequential applications of \*\*\*\*\* are to be made.

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#### **Rotational Crop Restrictions**

- Conventional Tillage: Refer to the rotational crop restrictions in the "General Use Precautions" section of this label.
- Minimum Tillage: In addition to the rotational crop restrictions listed in the General Use Precautions section of this label, do not plant grain sorghum in the year following the application of \*\*\*\*\*\*\*\*\*\*\*

#### 2. Cotton - Weed Control in Conservation Tillage

This section describes application methods and techniques for weed control with \*\*\*\*\*\*\*\*\*in conservation tillage cotton. \*\*\*\*\*\*\*\*\* may be applied and incorporated in the fall in advance of spring planting, in the spring before planting, after planting prior to crop emergence, or at layby. Single or multiple applications may be made so long as maximum application rates are not exceeded and rotational crop restrictions are followed.

#### **Broadcast Application Rates for Conservation Tillage:**

Soil Texture	******
	(pints/A)
Coarse	1.0 - 2.0
Medium	1.5 - 2.0
Fine	2.0 - 4.0

#### Strip Planting into Small Grain Cover Crops

Fall planted cover crops may be utilized to control wind erosion and protect developing crop seedlings from wind damage. Prior to planting cotton, the cover crop may be treated with a contact herbicide to prevent continued growth and development and prevent competition with crop seedlings for water and soil nutrients. The standing cover crop (now dead) continues to control wind erosion and provide protection to the developing crop until it is well established.

Strip Planting: In strip planting, cotton is seeded into competition-free bands established in the cover crop. Competition-free bands may be established by leaving unseeded drill rows when seeding the cover crop, by tillage, or by use of a contact herbicide to prepare competition-free bands prior to planting.

#### Fall Application Before Establishing a Cover Crop

#### Spring Application Before or After Planting (Within Competition-Free Bands)

Apply \*\*\*\*\*\*using low pressure ground equipment as a band (within the weed free zone) or as a broadcast treatment. Application and incorporation may occur before planting or after planting prior to crop emergence. If applied after planting, set incorporation equipment so as to not disturb the planted seed (see incorporation instructions).

Use the lower rate in the rate range when additional sequential applications of \*\*\*\*\* are anticipated. Use the higher rate in the rate range where high crop residues are present, and where denne weed populations are anticipated.

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For band treatments, reduce the application rate in proportion to the row spacing and band width treated. For example, treating a 12-inch band where the row spacing is 36 inches would require 1/3 of the recommended broadcast rate per acre (12 inches divided by 36 inches = 1/3).

**Layby Applications** 

Layby applications may be made in established cotton from the 4 true leaf stage of growth up to layby, but not less than 90 days before harvest. Apply \*\*\*\*\*\*\*\*\* uniformly to the soil surface using drop nozzles if necessary. Soil incorporate using 1 pass of a sweep-type cultivator or properly adjusted rolling cultivator. Operate cultivation equipment at speeds sufficient to provide vigorous soil mixing and exercise care to avoid mechanical injury to the crop. Cumulative layby application rate may not exceed the layby application rate shown for each soil texture.

**Broadcast Application Rates:** 

Soil Texture	******
	(pints/A)
Coarse	1.0
Medium	1.5
Fine	2.0

#### Repeat, Sequential Applications

#### Contact, Overlay, or Postemergence Herbicides

Contact herbicides approved for use in cotton may be used to control existing weeds prior to planting cotton. To control additional weeds, overlay, preemergence, or postemergence applications of other products registered for use on cotton may be applied. Follow the label "Directions for Use" of such products for applicable use instructions including application rates, application timing, weeds controlled, and specific precautions and restrictions of product use.

#### **Rotation Crop Restrictions**

Refer to the "General Information" section of this label for specific rotational crop restrictions. When the cumulative application rate exceeds the application rates in the table below, plant only those crops for which \* can be applied as a preplant incorporated treatment in the season following the application of \* or crop injury may result.

	Cumulative Application Rate
Soil Texture	*****
	(pints/acre)
Coarse	1.5
, Medium	1.5
Fine	2.0

Small grain cover crops that will not be grazed or harvested and are intended for prevention of wind erosion in conservation tillage cotton may be planted in the fall following spring applications of up to 4.0 pints per acre of \*\*\*\*\*\*\*\*\*\* Injury in the form of reduced stands or delayed emergence and development may result when small grains are planted under these conditions.

- Cotton Fall Panicum Control
   Apply and incorporate a broadcast rate of 2.0 pt/acre on both coarse and medium soils.
- 4. Cotton Pigweed and Seedling Johnsongrass Control Apply \*\*\*\*\*\*\*\* as a preplant incorporated treatment.

Broadcast Application Rates/Acre: In Alabama, Arkansas, Florida, Georgia, Louisiene, Mississippi, southeastern Missouri (Bootheel), North Carolina, South Carolina, Tennessee, and southern Virginia, apply \*\*\*\*\*\*\*\*\*\* at the following broadcast rates:

Soil Texture	******
	(pints)
Coarse	1.0 - 1.5
Medium	1.5 - 2.0
Fine	2.0

(Exception: Louisiana, where 3.0 pt/acre can be applied to fine soils).

- Use higher rates in the rate range where high weed populations are anticipated.
- Cotton Additional Weed and Grass Control in Gulf Coast Counties of Texas
   Apply \*\*\*\*\*\*\*\* as a preplant incorporated treatment up to 2 weeks before planting.

Broadcast Application Rates/Acre: For cotton grown in Brazoria, Calhoun, Chambers, Fort Bend, Gaiveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller, and Wharton counties of the Texas Gulf Coast, apply \*\*\*\*\*\*\*\* at the following broadcast rates:

Soil Texture	` <del>******</del>
	(pints)
Coarse	1.5
Medium	2.0
Fine	3.0

#### 6. Cotton - Rhizome Johnsongrass Control

(For use in all cotton producing states except Arizona and California.)

Soil Preparation: Satisfactory results are dependent upon proper preparation of soil prior to application. Chisel plow to bring rhizomes to the soil surface. Disc twice before application to chop rhizomes into small (2-3 inch) pieces and destroy any recently emerged johnsongrass plants.

Broadcast Application Rates/Acre:

Soil Texture	<del>`*******</del>
	(pints)
Coarse	2.0
Medium	3.0
Fine	4.0

Spring Application: Apply \*\*\*\*\*\*\* any time before planting in the spring for 2 years in succession.

Fall Application: Apply \*\*\*\*\*\*\* between October 15 and December 31 for 2 years in succession.

**Incorporation:** Deep incorporation with a tandem disc is essential for good results. Set disc to operate 4 to 6 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary and the second should be in a different direction than the first.

**Cultivation:** Some johnsongrass plants will not be controlled. Timely cultivation during the crop season is necessary to remove escaped plants and maintain commercially acceptable control.

#### Precautions:

In the season following a double rate treatment, plant only rice or those crops for which \*\*\*\*\*\*\*\* can be applied as a preplant treatment or crop injury may occur.

#### COTTONWOOD TREES GROWN FOR PULP Y

Apply as a soil incorporated treatment to control weeds susceptible to \*\*\*\*\*\*\*\* in new and established plantings of cottonwood trees grown for pulp.

#### **Application Before Planting**

Apply and incorporate \*\*\*\*\*\*\* before planting.

**Broadcast Application Rates/Acre:** 

Soil Texture *******	
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- All soils with 2% to 5% organic matter 1.5 to 2.0 pints
- All soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total rainfall and irrigation.

#### Application to Established Plantings

In established plantings, apply \*\*\*\*\*\*\* as a directed spray to the soil and use incorporation methods not injurious to the crop.

Broadcast Application Rates/Acre:

Soil Texture	<del>*******</del>
	(pints)
All Soil Textures	2.0 - 4.0

Application rate within the rate range may be adjusted according to weed pressure.

#### Johnsongrass Suppression in Established Plantings

Proper soil preparation before application is necessary for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the soil surface. Then work the soil twice using a tandem disc to cut rhizomes into small (2-3 inch) pieces and to destroy emerged johnsongrass.

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
All Soil Textures	4.0

Incorporation: Incorporate twice with tandem disc set to cut 4 to 6 inches deep and operated at 4 to 6 mph.

Cultivation: Some johnsongrass plants will escape. Timely cultivation with tillage implements or spot spraying with effective postemergence herbicides will improve the level of johnsongrass control.

#### **CUCURBITS**

Apply \*\*\*\*\*\*\* after emergence when plants have reached the 3 to 4 true leaf stage of growth. Apply as a directed spray to soil between the rows. Avoid foliage contact as slight crop injury may occur. Set incorporation equipment to move treated soil around the base of plants.

Broadcast Application Rates/Acre:

Soil Texture	<del>*******</del>
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- · Soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

Restriction: Do not apply within 30 days of harvest, except for Watermelon which has a 60 day preharvest interval.

#### FLAX (Fall Application Only)

Apply and incorporate \*\*\*\*\*\*\*\*\*\* in the fall for weed control in spring seeded flax. Incorporate once within 24 hours after application. The second incorporation may be performed in the spring prior to planting.

#### Special Instructions for Flax

- Incorporation operations or other tillage practices performed in the spring prior to seeding should be relatively shallow so as to maintain a firm seedbed, and the seedbed should be packed prior to seeding.
- 2. Seeding should be done with a press drill or noe drill. Seed into moist seedbed and plant no more than 1 1/2 inches deep.
- 3. Delay seeding until soil has warmed sufficiently to allow rapid germination and establishment.
- 4. Refer to "General Use Precautions" in the "General Information" section of this label for information on growing conditions that can lead to crop injury or yield reduction.

**Broadcast Application Rates/Acre:** 

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.5
Fine	2.0

#### **GRAIN SORGHUM (MILO)**

#### Postemergence Incorporated Treatment

Apply \*\*\*\*\*\*\* as a directed or over-the-top spray when grain sorghum is 8 to 24 inches tall. Drop nozzles should be used if foliage prevents uniform soil coverage.

**Broadcast Application Rates/Acre:** 

Soil Texture	******
	(pints)
Coarse	0.75 - 1.0
Medium	1.0 - 1.5
Fine	1.5 - 2.0

Apply \*\*\*\*\*\*\* at lower rate in rate range in areas receiving less than 20 inches total rainfall and irrigation.

#### Precautions:

- Do not apply \*\*\*\*\*\*\*\* to grain sorghum as a preplant or preemergence treatment or crop injury will
  occur.
- Over-application may result in injury to grain sorghum.

Restriction: Do not apply after grain sorghum is 24 inches tall.

#### Chemigation

\*\*\*\*\*\*\*\*\* may be applied through properly equipped chemigation systems for weed control in grain sorghum 8 to 24 inches tall. Refer to "Application by Chemigation" section in the "General Information" section of this label for chemigation use directions. Do not apply \*\*\*\*\*\*\*\* through any irrigation system unless these directions are carefully followed.

Application Timing: Apply \*\*\*\*\*\*\*\*\* to grain sorghum in 1/2 to 1 acre inch of overhead sprinkler irrigation as soon as possible after a cultivation when grain sorghum is 8 to 24 inches tall. \*\*\*\*\*\*\*\* must be applied prior to weed emergence or after existing weeds are controlled. \*\*\*\*\*\*\*\*\* does not control established weeds.

Broadcast Application Rates/Acre:

Soil Texture	****
	(pints)
Coarse	0.75 - 1.0
Medium	1.0 - 1.5
Fine	Do not apply *****
	by chemigation
	to fine textured soils.

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Restriction: Do not apply after grain sorghum is 24 inches tall.

## GREENS - TURNIP GREENS GROWN FOR PROCESSING: COLLARD, KALE, AND MUSTARD GREENS

Apply \*\*\*\*\*\*\* to greens as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	<u>******</u>
	(pints)
Coarse	1.0
Medium	1.5
Fine	1.5

• Soils with 2% to 10% organic matter - 1.5 pints

#### **HOPS**

Apply and incorporate \*\*\*\*\*\*\* to established crop during dormancy. Use incorporation equipment that will insure thorough soil mixing with minimal damage to crop stand.

Broadcast Application Rates/Acre:

Soil Texture	*******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5

• Soils with 2% to 10% organic matter - 1.5 pints

#### KENAF

Apply \*\*\*\*\*\*\* as a preplant soil incorporated treatment.

#### Broadcast Application Rates/Acre:

Soil Texture	******
Coarse†	(pints) 1
Medium	1 - 1.5
Fine	1.5

†Coarse soils with 2% to 5% organic matter - 1.5 pints

· Use higher rate in rate range where high weed populations are anticipated.

Precaution: Do not graze or harvest treated crop for livestock forage.

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#### MUSTARD - GROWN FOR SEED OR PROCESSED FOR FOOD

Apply \*\*\*\*\*\*\*\*to mustard as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture ********	
	(pints)
Coarse	1.0
Medium	1.5
Fine	1.5

Soils with 2% to 10% organic matter - 1.5 pints

#### **OKRA**

Apply \*\*\*\*\*\*\* as a soil incorporated treatment, before or immediately after planting. If applied and incorporated after planting, set equipment so as to not disturb the seed.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- · Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### ONIONS (DRY BULBS ONLY)

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	0.75 - 1.0
Medium	1.0 - 1.25

- Apply only to soils containing 3.5% or less organic matter
- · Note: Use the lower rate in rate range where light weed pressure is anticipated.

Incorporation: \*\*\*\*\*\*\*\* should be uniformly incorporated into the soil between the onion rows. Incorporation may be accomplished by operating a sweep-type or rolling cultivator 2 to 4 inches deep at 6 to 8 mph. Two incorporation passes are required with the first occurring within 24 hours after application or erratic weed control may result. Avoid covering onions with treated soil during incorporation as injury to the crop may occur. Care should be taken to avoid mechanical injury to onion roots during incorporation.

#### Precautions

• Preharvest interval: Do not apply within 60 days of harvest.

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- · Do not apply as a preplant or preemergence treatment.
- Do not apply to muck soils.
- Note: Reduced yields may result from use of \*\*\*\*\*\*\*\*\*\*\*\*\*\* on onion crops weakened by diseases, improper incorporation depth, excessive moisture, high salt concentration, or drought may weaken the crop and increase the possibility of damage from \*\*\*\*\*\*\*\*\*\* Under these conditions reduced yields may result.

#### PEAS - DRY PEAS AND ENGLISH PEAS

#### \*\*\*\*\*\* - Alone

Apply and incorporate \*\*\*\*\*\*\* in the spring before planting or in the fall in advance of spring planting. Refer to instructions for fall application under "Application Timing" in the "General Information" section of this label.

Broadcast Application Rates/Acre:

	******	
Soil Texture	Spring Application	Fall Application <sup>†</sup>
`Coarse	(cints) 1.0	(pints) 1.0
Medium	1.0 - 1.5 1	1.25 - 1.5
Fine	1.5	1.5

• Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

†\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* may be fall applied to dry and English peas in the states of Idaho, Oregon and Washington.

††Medium soils with 3% or greater organic matter - 1.5 pints

#### Tank Mixing or Sequential Treatments

For broader spectrum weed control, other products registered for use in dry and English peas may be applied in tank mix combination with \*\*\*\*\*\*\*\* or as a sequential treatment following application of \*\*\*\*\*\*\*\*\*. When tank mixing, use the recommended rate of \*\*\*\*\*\*\*\*\*\*\* Follow the label "Directions for Use" of each tank mix partner for applicable use instructions including application rate, application timing, weeds controlled, and specific precautions and restrictions of product use. See detailed information for tank mixing in the "General Information" section of this label.

#### PEAS - SOUTHERN PEAS

Apply \*\*\*\*\*\* as a preplant soil incorporated treatment.

**Broadcast Application Rates/Acre:** 

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- All soils with 5% to 10% organic matter 2.0 pints
- Use the lower rate in the rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### **PEANUTS**

#### \*\*\*\*\*\* - Alone

(For Use in Texas, Oklahoma, and New Mexico Only)

Apply and incorporate \*\*\*\*\*\*\* before planting, at planting or immediately after planting. When incorporating after planting, adjust equipment so as to not disturb planted seed.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.5

#### Tank Mixing or Sequential Treatments

#### PEPPER (Transplant Only)

Apply and incorporate \*\*\*\*\*\*\* prior to transplanting.

Broadcast Application Rates/Acre:

Soil Texture	*****
	;pints:
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

# POTATOES (Not for Use in the State of Maine)

**Application After Planting** 

Apply and incorporate \*\*\*\*\*\*\* herbicide after planting but before emergence, immediately following dragoff, or after potato plants have fully emerged.

**Broadcast Application Rates/Acre:** 

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25-1.5
Fine	1.5-2.0

- Coarse and medium soils with 2-5% organic matter 1.5 pints of \*\*\*\*\*\*\*\*\*
- Fine soils with 2-5% organic matter 2.0 pints of \*\*\*\*\*\*\*\*\*,
- Soils with 5-10% organic matter 2.0 pints of \*\*\*\*\*\*\*\*\*\*,
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

Incorporation Directions: Set incorporation equipment so that the bed and furrow will be uniformly covered with a layer of treated soil. If the layer of treated soil is not uniform and the herbicide is concentrated over the bed, potato emergence may be retarded and stem brittleness can occur. When applying and incorporating \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* after potato plants have fully emerged, do not completely cover the foliage with treated soil. Likewise, do not completely cover foliage at subsequent cultivations. Be careful that incorporation machinery does not damage potato seed pieces or elongating sprouts.

Broadcast Application Rates/Acre:

= : out out : tate of riore:	
	*******
	(pints)
Before Planting	0.75
After Planting	0.75

\*\*\*\*\*\*\*\*\*\*\*\* Plus Eptam Tank-Mix - Preplant Treatment (For Use in Idaho, Oregon and Washington)

Broadcast Application Rates/Acres

Broadcast Application Hates/Acre.	
	*****
	(pints)
All soil textures	0.75

**Precautions:** Do not use this tank mix both before and after planting in the same season. Do not graze for feed forage to livestock from fields treated with the \* plus Eptam tank mix. Refer to the label for Eptam for application rates, additional use directions, precautions and limitations before use.

Chemigation (\*\*\*\*\*\*\*\* Only)

\*\*\*\*\*\*\*\* may be applied through properly equipped chemigation systems for weed control in potatoes. Refer to "Chemigation" section in the "General Information" section of the label for \*\*\*\*\*\*\*\* Do not apply \*\*\*\*\*\*\* through any type of irrigation system unless these directions are carefully followed.

Broadcast Application Rates/Acre:

Soil Texture	* <del>*****</del>
	(pints)
· Coarse	1.0
Medium	1.5

Do not apply by chemigation to fine textured soils.

Precautions: If cultivation is required after treatment with \*\*\*\*\*\*\*\*\*\*, avoid completely covering potato plants with treated soil. Erratic weed control may result if cultivation exposes untreated soil between rows.

#### **RADISH**

Apply \*\*\*\*\*\*\*\* as a preplant soil incorporated treatment.

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.5
Fine	1.5

## RAPESEED (CANOLA) AND CRAMBE

**Broadcast Application Rates/Acre:** 

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.5
Fine	2.0

#### Precautions

- Do not apply to rapeseed (canola) grown in the state of Alaska.
- · Do not graze or harvest crambe for livestock forage.

#### SAFFLOWER

Apply and incorporate \*\*\*\*\*\*\*\* in the spring before planting or in fall in advance of spring planting. See instructions for fall application under "Application Timing" in the "General Information" section of this label.

Broadcast Application Rates/Acre:

	******	
Soil Texture	Spring Application	Fall Application
Coarse	(pints) 1.0	(pints) 1.5
Medium	1.25 - 1.5	2.0
Fine	1.5 - 2.0	2.5

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.5 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### SMALL GRAINS - BARLEY, DURUM, AND WHEAT

### Special Precautions for Use of \*\*\*\*\*\*\* on Small Grains

Carefully follow directions for use of \* on small grains to minimize potential crop stress. Under certain conditions, delayed crop emergence and or stand reduction may occur when \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* is applied to barley, durum, or wheat. The combined effect of certain cultural practices and unfavorable soil or environmental conditions may cause excessive crop seedling stress resulting in retarded crop growth, stand reduction, and possibly reduced yield. For best results, observe the following cultural practices or precautions:

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Use tillage methods that provide a uniformly firm seedbed and time tillage operations to conserve moisture.

Irrigate prior to planting or after germination and emergence. Moisture received between planting and emergence may cause crusting, especially on loose seedbeds.

Do not exceed recommended application rates for \*\*\*\*\*\*\*\*\*. This is particularly important on coarse textured or low organic matter soils.

Carefully follow incorporation directions. When applying preplant incorporated treatments, operate equipment at recommended depth and speed to place \*\*\*\*\*\*\*\*\*\* into the upper 1 to 1 1/2 inches of soil. If applied after planting, set equipment so as to not disturb planted seed.

Set drills to place seed at a the depth specified in use directions. A planting depth greater than 2 1/2 inches for spring wheat or durum will result in increased seedling stress and decreased emergence.

Use only high quality seed where \*\*\*\*\*\*\*\*\* is to be applied (avoid use of small seed with low starch reserves).

If seed treatments are used, apply at the correct rate and uniformly across all seeds. Misapplication may result in reduced germination and/or seedling vigor.

Avoid use of seed varieties known to have poor seedling (emergence) vigor.

Soil related: High salinity, eroded knolls/hilltops, loose dry soils and compaction.

Weather related: Cold and/or wet soils, excessively hot soils, excessive moisture, drought, and soil crusting from heavy rainfall.

Note: Do not apply \*\*\*\*\*\*\*\*\* on small grains where a dinitroaniline herbicide such as Treflan or Sonalan\* herbicide was applied at a rate greater than 0.5 lb ai per acre the previous growing season.

#### **Application Directions for Small Grains**

Barley, Spring Seeded -- Spring Application Preplant Incorporated for Foxtail (Pigeongrass) Control (For Use in Minnesota, North Dakota, and South Dakota)

Apply \*\*\*\*\*\*\*\* as a preplant incorporated treatment prior to planting spring seeded barley. \*\*\*\*\*\*\*\* may be applied to ground that has a manageable level of crop residue or has been fallowed or pretilled. The first incorporation is required within 24 hours after application. The second incorporation is, required prior to planting to destroy emerged weeds and to insure even distribution of \*\*\*\*\*\*\*\*\* in the soil surface.

Broadcast Application Rates/Acre: Apply at a rate of 1.0 pint per acre for all soil textures regardless of organic matter content.

Incorporation: Recommended incorporation tools include the chisel plow (first incorporation pass only), tandem disc and field cultivator. Refer to "Incorporation Equipment" in "General Information" section of this label for details on operation of incorporation equipment.

Planting Directions: Barley should be seeded approximately 1 1/2 inches deep.

#### Precautions:

- Carefully read and follow "Special Precautions for Use of \*\*\*\*\*\*\*\*\* in Small Grains" before application of \*\*\*\*\*\*\*\*\*.
- While use of this weed control practice may result in a stand reduction, slight stand reductions do not normally affect yield.

Barley, Spring Seeded – Spring Application Preplant Incorporated for Foxtail (Pigeongrass) Control in Barley Used as a Cover Crop or in the Conservation Reserve Program

Apply\*\*\*\*\*\*\* as a preplant incorporated treatment prior to planting spring seeded barley on land enrolled in acreage conservation reserve programs. Follow recommended soil preparation, application, and incorporation procedures for \*\*\*\*\*\*\*\*\*

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.5
Fine	1.5

Planting Directions: Barley should be seeded approximately 1 1/2 inches deep.

Precautions: Use of this weed control practice may result in slight stand reduction. Follow the most severe grazing restrictions imposed either by the label for \*\*\*\*\*\*\*\*\*\*\* or by the USDA Acreage Conservation Reserve Program, whichever is longest. Consult the local ASCS office or other state agency to determine the period of USDA grazing restriction.

Winter Wheat -- Preplant Incorporated for Control of Cheatgrass and Other Annual Grasses and Broadleafs (For Use in Idaho, Oregon, and Washington)

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.5
Medium	1.5
Fine	2.0

Planting Directions: Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone of soil treated with \*\*\*\*\*\*\*\*\*

#### Precautions:

- Carefully read and follow "Special Precautions for Use of \*\*\*\*\*\*\*\*\* in Small Grains" before application of \*\*\*\*\*\*\*\*\*.
- Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

#### Winter Wheat -- Post Plant Incorporated Treatment

Apply and incorporate\*\*\*\*\*\*\*\* after planting, but before emergence, to control the following weeds susceptible to \*\*\*\*\*\*\*\* in winter wheat: annual ryegrass, annual bluegrass, downy brome (cheatgrass), pacific meadow foxtail (blackgrass), fiddleneck (tarweed), and henbit.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0 - 1.5
Medium	1.5

Planting Directions: Plant wheat 2 to 3 inches deep in a well-tilled seedbed. Do not use a deep or semideep furrow drill.

#### Precautions:

- Carefully read and follow "Special Precautions for Use of \*\*\*\*\*\*\*\* in Small Grains" before application of \*\*\*\*\*\*\*\*.
- Wheat seed in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.
- If less than 20 inches of rainfall plus irrigation was received between planting and harvest, refer to rotation crop restrictions before planting sorghum or oats.

Winter Wheat -- Fallow Soil Application Prior to Planting (For Use in Idaho, Oregon, and Washington)

**Broadcast Application Rates/Acre:** 

Soil Texture	**************************************
	(pints)
Coarse	1.5
Medium	1.5
Fine	2.0

Incorporation Directions: Incorporate \*\*\*\*\*\*\*\*\* with a flexible tine-tooth harrow (Flextine or Melroe) set to cut 1 to 2 inches deep and operate at 3 to 6 mph. Incorporate once within 24 hours after application and a second time in a different direction from the first prior to planting. Do not till the soil with a disc after \*\*\*\*\*\*\* has been incorporated with a flexible tine harrow.

Planting Directions: Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone of soil treated with \*\*\*\*\*\*\*\*\*.

#### Precautions:

- Carefully read and follow "Special Precautions for Use of \*\*\*\*\*\*\* in Small Grains" before application of \*\*\*\*\*\*\*\*
- Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

Wheat, Durum and Barley, Spring Seeded - Fall Applied Preplant Soil Incorporated for Foxtail (Pigeongrass) Control

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#### (For Use In Minnesota, North Dakota and South Dakota)

Apply \*\*\*\*\*\*\* herbicide in the fall for foxtail (pigeongrass) control during the following growing season. Incorporate 1 time within 24 hours. Incorporate a second time before planting to destroy existing weeds and insure a uniform distribution of \*\*\*\*\*\*\* in treated soil. \*\*\*\*\*\* may be applied to ground that has a manageable level of crop residue, or has been fallowed or pre-tilled.

Broadcast Application Rates/Acre:

Soil Texture	****
	(pints)
Coarse and Medium	1.0
Fine	1.5

**Incorporation:** Recommended incorporation tools include the chisel plow (first incorporation pass only), tandem disc and field cultivator. Refer to "Incorporation Equipment" in "General Information" section of this label for details on operation of incorporation equipment.

#### **Planting Directions**

Set equipment to place seed approximately 1 1/2 inches deep.

#### Precautions

Carefully read and follow "Special Precautions for Use of \*\*\*\*\*\*\*\* in Small Grains" before application of \*\*\*\*\*\*\*\*

While use of this control practice may result in a stand reduction, slight stand reductions do not normally affect yield.

Spring Wheat, Durum, and Barley -- Postplant Incorporated for Foxtail (Pigeongrass) Control

Apply and incorporate \*\*\*\*\*\*\* after planting, but before emergence, to control foxtail (pigeongrass) in spring wheat, durum, and barley.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.0
Fine	1.5

Planting Directions: Plant wheat 2 to 3 inches deep in a well-tilled seedbed.

Incorporation Directions: Incorporate \*\*\*\*\*\*\*\*\* using 2 passes with a flex-tine or diamond harrow operated at least 5 mph. The second incorporation pass should be in a different direction than the first. Set equipment to cut 1 to 1 1/2 inches deep and avoid disturbing seed. Application and first incorporation should be done in the same operation if possible. Both incorporations must be done within 24 hours.

#### Precautions:

- Carefully read and follow "Special Precautions for Use of \*\*\*\*\*\*\*\*\*\* in Small Grains" before application of \*\*\*\*\*\*\*\*\*
- Wheat seed in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

#### **SOYBEANS**

### \*\*\*\*\*\* - Alone

Apply and incorporate \*\*\*\*\*\*\* in the spring before planting or in the fall in advance of spring planting. See instructions for fall application under "Application Timing" in the "General Information" section of this label.

**Broadcast Application Rates/Acre:** 

	******	
Soil Texture	Spring Application	Fall Application <sup>†</sup>
	(pints)	(pints)
Coarse	1.0	2.0
Medium	1.5	2.0
Fine	2.0	2.5

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 to 2.5 pints

For soybeans grown in states other than those listed above, fall apply \*\*\*\*\*\*\*\* at broadcast rates recommended for spring preplant incorporated treatment.

Precautions: Soybeans should be planted after early season adverse weather conditions have passed, especially when using higher rate programs. Cool, wet weather early in the growth cycle causes additional stress on soybean plants which may result in reduced stand, delayed maturity and reduced yield.

## Tank Mix Overlay and Postemergence Recommendations

## **Special Use Programs**

#### 1. Soybeans - Chemigation

)

\*\*\*\*\*\*\*\* may be applied through properly equipped chemigation systems for weed control in soybeans. Refer to "Application by Chemigation" in the "General Information" section of this label for use directions for chemigation. Do not apply \*\*\*\*\*\*\* through any irrigation system unless these directions are carefully followed.

<sup>&</sup>lt;sup>†</sup>Fall Application Rates for States Including: Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri (Bootheel), North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

#### **Broadcast Application Rates/Acre:**

Soil Texture	*****
	(pints)
Coarse	1.5 - 2.0
Medium	1.5 - 2.0
Fine	2.0 - 2.5

- Soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 to 2.5 pints

Cultivation: Soil treated by chemigation with \*\*\*\*\*\*\*\* may be shallow cultivated without reducing weed control activity.

#### 2. Soybeans - Weed Control Under Reduced or Conservation Tillage

\*\*\*\*\*\*\*\* can be applied either in the fall or in the spring as a preplant incorporated treatment for weed control in soybeans grown under reduced or conservation tillage conditions. Make only 1 application per crop cycle.

#### Application With Dry Bulk Fertilizers

#### Application Rates/Acre:

	****	****
Soil Texture	Spring Applied	Fall Applied
	(pints)	(pints)
Coarse	1.0 - 1.5	1.5 - 2.0
Medium	1.5 - 2.0	2.0 - 2.5
Fine	2.0 - 2.5	2.5 - 3.0

Use the higher rate in the rate range where higher crop residues are present or where dense weed populations are anticipated.

#### Precautions

To be effective, \*\*\*\*\*\*\* must be mixed thoroughly in the top 2 to 3 inches of soil in the final seedbed. Weed control may be poor or erratic where soil conditions or heavy crop residues do not permit thorough soil mixing.

#### 3. Soybeans - Fall Panicum Control

Apply \*\*\*\*\*\*\* as a preplant incorporated treatment at a broadcast rate of 2.0 pt/acre cn coarse and medium soils.

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4. Soybeans - Pigweed and Seedling Johnsongrass Control Apply \*\*\*\*\*\*\*\*\* as a preplant incorporated treatment.

Broadcast Application Rates/Acre: In Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma, South Carolina, Tennessee, and southern Virginia, apply \*\*\*\*\*\*\*\*\* at the following broadcast rates:

Soil Texture	*******
. "=-	(pints)
Coarse	1.0 - 1.5
Medium	1.5 - 2.0
Fine	2.0 - 2.5

(Exception: Louisiana, 3.0 pt/acre on fine soils).

5. Soybeans - Additional Weed and Grass Control in Gulf Coast Counties of Texas Apply \*\*\*\*\*\*\*\*\* as a preplant incorporated treatment up to 2 weeks before planting.

Broadcast Application Rates/Acre: For soybeans grown in Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller, and Wharton counties of the Texas Gulf Coast, apply \*\*\*\*\*\*\*\*\*\* at the following broadcast rates:

Soil Texture	******
•	(pints)
Coarse	1.5
Medium	2.0
Fine	3.0

6. Soybeans - Itchgrass (Raoulgrass) Suppression
Apply \*\*\*\*\*\*\*\*\*\*\*\*\* as a preplant incorporated treatment or at layby.

Layby Treatment: Cultivate to remove existing weeds and treat when soybeans are well established (10 inches tall). Apply as a directed spray to the soil surface and incorporate using a rolling cultivator set to cut 2 to 4 inches deep or sweep-type cultivator with 3 to 5 sweeps per row middle operated 2 to 3 inches deep. Set incorporation equipment to throw treated soil to the row.

Broadcast Application Rates/Acre:

	*****	
Soil Texture	Preplant Incorporated	Layby Application
	(pints)	(pints)
Medium	3.0	1.0
Fine	3.0	2.0

7. Soybeans - Charcoal Soils in Arkansas, Louisiana, and Mississippi
Newly cleared land often contains high organic matter (5-10%) and charcoal from burning debris.
Charcoal and organic matter tends to bind \*\*\*\*\*\*\*\*\* and reduce weed control activity. Under these conditions, higher rates of \*\*\*\*\*\*\*\*\* are necessary for weed control. Increased rates, however, can cause crop injury if charcoal or organic matter is not present to bind some of the \*\*\*\*\*\*\*\*. In the burn row a high level of charcoal is usually present. Consequently, poor weed control may result, even if ar. increased rate of \*\*\*\*\*\*\*\* is used. Follow recommended application and incorporation procedures for

Broadcast Application Rates/Acre:

Soil Texture	<del>******</del>
	(pints)
Coarse	1.5 - 2.5
Medium	2.5
Fine	3.0

Broadcast Application Rates/Acre:

	*******	
Soil Texture	Application Year 1	Application Year 2
	(pints)	(pints)
Coarse	2.0	1.0
Medium	3.0	1.5
Fine	4.0	2.0
Coarse Soils with 2-5% organic matter	3.0	1.5
Soils with 5-10% organic matter	4.0	2.0 - 2.5

In Arkansas, Louisiana and Mississippi, if a combination of high soil organic matter (5-10%) and charcoal are present, apply \*\*\*\*\*\*\*\* at the following broadcast rates:

Soil Texture	*****
	(pints)
Coarse	1.5 - 2.5
Medium	2.5
Fine	3.0

For more information on charcoal soils see discussion in preceding section.

9. Soybeans - Rhizome Johnsongrass Control in Eastern United States and the State of Texas Rhizome johnsongrass control with \*\*\*\*\*\*\*\*\*\*\* requires double rate application for 2 consecutive years. Commercially acceptable control cannot be obtained with only 1 year of double rate use of \*\*\*\*\*\*\*\*\*\*\*\*. Carefully follow the special use directions which follow.

Soil Preparation: Satisfactory results are dependent upon proper soil preparation prior to application. Use implements such as a chisel plow to bring rhizomes to the soil surface. Disc twice before application to chop rhizomes into small (2-3 inch) pieces and destroy any recently emerged johnsongrass plants.

Soil Texture	*****
	(pints)
Coarse	2.0
Medium	3.0
Fine	4.0

- · Coarse soils with 2% to 5% organic matter 3.0 pints
- Soils with 5% to 10% organic matter 4.0 pints

Spring Application: Apply \*\*\*\*\*\*\*\* any time before planting in the spring for 2 consecutive years.

Fall Application: Apply \*\*\*\*\*\*\*\* after October 15 for 2 consecutive years.

Split Application: Apply \*\*\*\*\*\*\*\* at the broadcast rates indicated in the following table both spring and fall for 2 consecutive years.

Soil Texture	********* Spring + Fall
Coarse	(pints) 1.0 + 1.0
Medium	1.5 + 1.5
Fine	2.0 + 2.0
Coarse Soils with 2-5% organic matter	1.5 + 1.5
Soils with 5-10% organic matter	2.0 + 2.0

Incorporation: Deep incorporation with a tandem disc is essential for good results. Set disc to operate 4 to 6 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary and the second should be in a different direction than the first.

Cultivation: Some johnsongrass plants will not be controlled. Timely cultivation during the crop season is necessary to remove escaped plants and maintain commercially acceptable control.

Precautions: In the season following a double rate treatment, plant only rice and those crops to which \*\*\*\*\*\*\*\* can be applied as a preplant treatment or crop injury may result.

#### 10. Soybeans - Wild Cane (Shattercane) Control

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	2.0
Fine	25

Cultivation: Cultivation during the growing season will improve shattercane control.

#### SUGAR BEETS

#### \*\*\*\*\*\*\* - Alone

Apply \*\*\*\*\*\*\*\*\*\* as an over-the-top spray and incorporate. Apply from the time the first true leaves have formed until plants are 6 inches tall.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.25 - 1.5

**Incorporation:** Set incorporation equipment to move treated soil around the plants in the row. Avoid damage to the sugar beet tap root from incorporation equipment.

**Precaution:** Exposed beet roots should be covered with soil before application of \*\*\*\*\*\*\*\*\*\*\* to reduce the possibility of girdling.

Incorporation with a Tine-Tooth Harrow (For Use in California, Colorado, Idaho, Nebraska, Oregon, Texas, Utah, Washington, and Wyoming)

A tine-tooth harrow (Flextine or Melroe) can be used to incorporate \*\*\*\*\*\*\* in sugar beets. Incorporation with tine-tooth harrow requires 2 passes in opposite directions over the same set of rows. Set the harrow to cut 1 to 2 inches deep and operate at 3 to 6 mph. Set incorporation equipment carefully to avoid damage to sugar beet tap root. Use application procedures and broadcast application rates recommended in preceding section.

### Tank Mixing

#### **SUGARCANE**

#### <del>\*\*\*\*\*\*\*\*</del> - Aione

Apply and incorporate \*\*\*\*\*\*\* twice a year. Make the first application of \*\*\*\*\*\*\*\* in the fall on firmly packed beds immediately after the seed pieces are planted. Make the second application of \*\*\*\*\*\*\*\* in the spring before or shortly after the cane emerges. Loosen rain-packed beds 2 to 3 inches deep before the spring application. Take care that incorporation equipment does not damage the seed pieces or emerging shoots.

Soil Texture	*****
	(pints).
All Textures	2.0 - 4.0†

<sup>&</sup>lt;sup>†</sup>Application rate within rate range may be adjusted according to weed pressure.

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# Postplant Application for Control of Most Annual Grasses, Including Guineagrass (For Use in Hawaii)

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
All Textures	6.0 - 8.0

#### Repeat Applications:

#### Restrictions:

Do not apply \*\*\*\*\*\*\*\* as a postplant surface applied treatment within 180 days of harvest.

## Applications Up to Layby for Plant Cane or Ratoon Cane (For Use in Louisiana and Texas)

Apply and incorporate \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* in spring from shortly before or after cane emergence until layby. Apply after beds have been shaved or false shaved. Loosen rain-packed beds 2 to 3 inches deep before application. Avoid incorporation equipment damage to seed pieces or emerging shoots. Incorporate with a rolling cultivator or bed chopper for all soil textures. Set rolling cultivator to cut 2 to 4 inches deep and operate at 6 to 8 mph. Set bed chopper to cut 3 to 4 inches deep and operate 4 to 6 mph. Two incorporation passes are necessary.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
All Textures	2.0 - 4.0 <sup>T</sup>

<sup>&</sup>lt;sup>†</sup>Application rate within rate range may be adjusted according to weed pressure.

#### Itchgrass (Raoulgrass) Control (For Use in Louisiana)

Apply and incorporate \*\*\*\*\*\*\*\* on plant or ratioon cane. Follow use directions in preceding section for Tayby application.

Soil Texture	<del>******</del>
	(pints)
All Textures	2.0 - 4.0

#### **SUNFLOWERS**

#### \*\*\*\*\*\* - Alone

Apply and incorporate \*\*\*\*\*\*\*\*\*\* in the spring before planting or in the fall in advance of spring planting. See instructions for fall application under "Application Timing" in the "General Information" section of this label.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 to 2.0 pints
- Fine soils with 2% to 5% organic matter 2.0 pints.
- Soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

#### Tank Mixing

For broader spectrum weed control, other products registered for use in sunflowers may be applied in tank mix combination with \*\*\*\*\*\*\*\*\*\*\* or as a sequential treatment following application of \*\*\*\*\*\*\*\*\*\*\*. When tank mixing, use the recommended rate of \*\*\*\*\*\*\*\*\*\*\*. Follow the label "Directions for Use" of each tank mix partner for applicable use instructions including application rate, application timing, weeds controlled, and specific precautions and restrictions of product use. See detailed information for tank mixing in the "General Information" section of this label.

#### TOMATOES

Apply \*\*\*\*\*\*\* to direct-seeded tomato as a directed spray between rows and beneath plants and incorporate at the time of blocking or thinning. For transplant tomatoes, apply and incorporate before transplanting or apply post-plant as a directed spray to the soil between the rows and beneath plants and incorporate.

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2% to 5% organic matter 1.5 pints
- Fine soils with 2% to 5% organic matter 2.0 pints
- Soils with 5% to 10% organic matter 2.0 pints
- · Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.



## TREE AND VINE CROPS - CITRUS, FRUIT, AND NUT TREES AND VINEYARDS

### New Plantings of Citrus, Fruit, and Nut Trees

For new plantings of almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, plum, prune, tangelo, tangerine, and walnut trees, apply and incorporate \*\*\*\*\*\*\*\*\* before transplanting.

#### **Broadcast Application Rates/Acre:**

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

- All soils with 2% to 5% organic matter 1.5 to 2.0 pints
- All soils with 5% to 10% organic matter 2.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total rainfall and irrigation.

#### **New Plantings of Vineyards**

Apply and incorporate \*\*\*\*\*\* before transplanting.

#### Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
Coarse	1.0 <u>- 1</u> .5
Medium	1.5 - 3.0
Fine	3.0 - 4.0

- Soils with 2% to 10% organic matter 4.0 pints
- Use lower rate in rate range in areas receiving less than 20 inches total rainfall and irrigation.

Note: Do not use more than 2.0 pt/acre on mist propagated grape rootings.

## Established Non-bearing and Bearing Citrus, Fruit, and Nut Trees and Vineyards

\*\*\*\*\*\*\* may be applied in established non-bearing and bearing vineyards and plantings of almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, plum, prune, tangelo, tangerine and walnut trees. In established plantings, apply \*\*\*\*\*\*\*\*\*\*\*\*\* as a directed spray to the soil and incorporate using methods not injurious to the crop. Do not apply to vineyards within 60 days of harvest.

#### **Broadcast Application Rates/Acre:**

<ul> <li>Soil Texture</li> </ul>	******
	(pints)
All Soil Textures	2.0 - 4.0

Application rate within the rate range may be adjusted according to weed pressure.

#### Rhizome Johnsongrass Control - Special Two-year Use Program

Soil Preparation: Work the soil thoroughly to move rhizomes near the soil surface and cut them into smaller pieces.

The following application rate must be applied for 2 consecutive years:

						-	
i	Soil Texture	*****		_			
i		(pints)					
j	All Soil Textures	4.0	1	_			

Incorporation: Incorporate \* thoroughly with a disc set to cut 4 to 6 inches deep and operate 4 to 6 mph. Two incorporation passes are necessary, with a second pass in a different direction from the first.

**Cultivation:** Some johnsongrass plants will escape. Timely cultivations are necessary to obtain commercially acceptable control. Commercially acceptable control cannot be obtained with only a single year use of \*\*\*\*\*\*\*\*\*.

**Precautions:** Do not use the 4 pint rate on new plantings or crop injury may result. Do not interplant orchards or vineyards with other crops. If treated vineyards and orchards are diverted to other crop uses, then in the next cropping season plant only those crops for which \*\*\*\*\*\*\* has been registered as a preplant incorporated treatment.

#### Bindweed Control in California

\*\*\*\*\*\* can be applied using a specially equipped spray blade for the control of field bindweed in vineyards and in plantings of almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine, and walnut trees.

**Soil Preparation:** Destroy existing weeds with soil tillage before applying \*\*\*\*\*\*\*\* to prevent interference with operation of the spray blade.

Equipment: Application requires a spray blade capable of operation at 4 to 6 inches below the soil surface. The blade should be equipped with nozzles located under the blade and directed so as to allow spray to be trapped in a thin layer as the blade is pulled through the soil. Use a nozzle spacing sufficient to insure application of a uniform horizontal layer.

Application: Apply \*\*\*\*\*\*\*\* in 40 to 80 gallons of water per acre. Operate blade at a depth of 4 to 6 inches.

Broadcast Application Rates/Acre:

Soil Texture	******
	(pints)
All Soil Textures	4.0

Precautions: Some soils may develop cracks as they dry after rainfall or irrigation. Field bindweed may emerge if the cracks extend through the layer of \*\*\*\*\*\*\*\*\*\* Prevent or eliminate cracks by shallow-discing or other tillage. Avoid deep tillage which disturbs the subsurface layer. Cultivation or tillage also aids the control of germinating seeds.

#### WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of Fitness or of Merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

CO-OP is a trademark of Universal Cooperatives, Inc. Universal Cooperatives, Inc., Minneapolis, MN 55440

## SUPPLEMENTAL LABEL



Universal Cooperatives, Inc.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT | 0 1997

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

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

\*\*\*\*\*\*\*\* Plus Tri-Scept Tank Mix for Control of Fall Panicum, Seedling
Johnsongrass and Shattercane in Soybeans

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*

#### **Directions for Use**

\*\*\*\*\*\*\* herbicide should be tank mixed with Tri-Scept herbicide and applied as a preplant incorporated treatment where infestations of fall panicum, shattercane and seedling johnsongrass are anticipated. Use application and incorporation methods for \*\*\*\*\*\*\* applied as a preplant incorporated treatment.

#### Broadcast Application Rates per Acre:

Weed Species	Soil Textures	******
		(pints)
Fall Panicum	All	0.5
Johnsongrass	Medium	0.5
(seedling only)	Fine	0.5
Shattercane	Medium	0.5
	Fine	1.0

#### **General Use Precautions:**

- The use of Tri-Scept is limited to those states or portions of states listed on the label for Tri-Scept Do not use the tank mix of \*\*\*\*\*\*\*\*\* plus Tri-Scept in the "Northern Use Area" as defined by the !2bel for Tri-Scept.
- Do not graze or feed treated soybean forage, hay, or straw to livestock.
- Do not apply Tri-Scept postemergence to soybeans as crop injury may occur.
- Crops other than soybeans may be injured by spray, drift or other indirect contact with Tri-Scept.
- To avoid injury to sensitive crops, spray equipment used for applications of Tri-Scept must be drained and thoroughly cleaned with water before being used to apply other products to the following crops; cotton, corn, grain sorghum, rice and vegetables.
- A preharvest interval of 90 days is required between the last application of Tri-Scept and the scybean harvest.

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Replanting: If replanting is necessary in a field previously treated with Tri-Scept, replant only soybeans. Rework soil no deeper than the treated zone. Do not reapply Tri-Scept.

All additional use directions, precautions and limitations applicable to the use of Tri-Scept, apply to the use of this tank-mix.

#### Rotational Crop Restrictions for Tri-Scept:

Use of Tri-Scept herbicide in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of Tri-Scept and therefore, rotational crop injury is always possible.

Certain severe restrictions apply to corn, wheat and other rotational crops following an application of Tri-Scept. Refer to the label for Tri-Scept for complete details of these and other restrictions.

- 1. Do not plant wheat within 4 months following an application of Tri-Scept in soybeans; and, do not plant rice Entil the spring of the year following an application of Tri-Scept.
- 2. Do not plant barley, field corn, edible beans, grain sorghum, oats, peanuts or tobacco within 11 months after an application of Tri-Scept.
- 3. Do not plant sugar beets for 26 months after an application of Tri-Scept.
- 4. Field corn planting restrictions: For the "Southern Use Area" as defined by the label for Tri-Scept; field corn may be planted as a rotational crop in the spring of the year following an application of Tri-Scept unless extreme drought conditions develop or less than 15 inches of rainfall or irrigation is received from the date of application through October of the year of application. For eastern Oklahoma, Arkansas, the Bootheel of Missouri, Tennessee, North Carolina and states south: field corn may be planted in the spring of the year following an application of Tri-Scept unless extreme drought conditions develop or less than 15 inches of rainfall or irrigation is received within 6 months following the cate of application.
- 5. Do not plant cotton or rotational crops other than those listed above within 18 months following an application of Tri-Scept.
- 5. Do not apply products containing chlorimuron ethyl (e.g., Classic, Canopy, Gemini, Lorox Plus, Preview, etc.) or imazethapyr (e.g., Pursuit, or Pursuit Plus) the same year as Tri-Scept or injury to following crops may occur.

Refer to the labels for \*\*\*\*\*\*\* and Tri-Scept for additional use directions, precautions and limitations before use.

SUPPLEMENTAL LABEL

Universal Cooperatives, Inc.

Minneapolis, MN 55440

ACCEPTED with COMMENTS TRIFLURALIN 4EC HERBICIDE OCT 10 1997 EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Redesticide Act as amended, for the posticide registered under EPA Reg. No. /386-669

Plus Canopy and Crop Oil Concentrate
Early Preplant Application for Weed Control in No-till Soybeans
(Not For Use In California)

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow use precautions
  and applicable use directions.
- Use of \*\*\*\*\*\*\* according to this supplemental labeling is subject to all precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*

#### **Directions For Use**

Broadcast Application Rates per Acre:

Soil Texture	*****	Canopy 75DF1
	(pints/A)	(ounces/A)
Coarse	2.0	6
Medium	3.0	8
Fine	4.0	10

<sup>&</sup>lt;sup>1</sup>Use crop oil concentrate at a rate of 1 quart per acre regardless of application rate.

#### Use of Additional Postemergence Herbicides:

In addition to Canopy plus crop oil concentrate, other postemergence herbicides, may be added to the tank mix to enhance control of existing weeds. These include 2,4-D, Gramoxone Extra and Roundup. Refer to the labels of these additional tank-mix products for use rates.

#### Precautions:

- The user must comply with all applicable use directions, precautions and limitations imposed by the labels for \*\*\*\*\*\*\*\* and the tank mix product.
- Read and understand these additional use directions, precautions and limitations before use.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

OCT | 0 1997

Under the Federal Insecticide,
Fundicide, and Rodenticide Act
as amended, for the posticide
registered under EPAFtes Distribution and Use Only in Texas, Oklahoma and New Mexico)

1386-699

\*\*\*\*\*\*\* - 48 Hour Incorporation Delay

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\* except as described below.

\*\*\*\*\*\*\*\* herbicide may be applied as a preplant incorporated treatment for weed control in registered crops. The incorporation delay for \*\*\*\*\*\*\*\* is extended from 24 to 48 hours when applied in the states of Texas, Oklahoma and New Mexico. If \*\*\*\*\*\*\*\*\*\* is applied to a warm wet soil surface or the wind velocity is 10 mph or greater, variable weed control may result if the first incorporation is delayed more than 24 hours.

Follow soil incorporation procedures recommended on the label for \*\*\*\*\*\*\*\* Where two incorporation passes are required, the first pass must be accomplished within 48 hours after application. The second incorporation pass may occur anytime before planting.





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ACCEPTED with COMMENTS In EPA Letter Dated OCT 10 1997

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered mader EPA Reg. No. 386-609

> \*\*\*\*\*\*\*\* for Partial Control or Suppression of Annual Brome Species (Cheatgrass, Downy Brome, Japanese Brome, Hairy Chess) and Jointed Goatgrass in Winter Wheat in Colorado, Kansas, Nebraska and Wyoming

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*.

#### Directions for Use

\*\*\*\*\*\*\* herbicide may be applied as a preplant incorporated treatment for partial control or suppression of annual Brome species (cheatgrass, downy brome, Japanese brome, hairy chess) and jointed goatgrass in winter wheat in Colorado, Kansas, Nebraska, and Wyoming. Apply \*\*\*\*\*\*\*\* anytime during a period from three (3) weeks before planting up to immediately prior to planting.

### Broadcast Rates Per Acre<sup>1</sup>

	******
Soil Texture	(pints)
Course	1 - 1 1/2
Medium	1 - 1 1/2
Fine	1 1/2

<sup>&</sup>lt;sup>1</sup>Use the higher rate in the rate range where heavy weed populations are anticipated or where medium to high crop residues are present.

Incorporation and Planting Directions: \*\*\*\*\*\*\*\*\* should be incorporated with tillage equipment such as a flexible tine-tooth harrow or springtooth harrow that mixes the soil no more than 1-2 inches deep. The grain drill (disc drill or hoe drill) can serve as the incorporation implement. Do not use discs, undercutters or field cultivators for incorporation. Incorporate one time within 24 hours after application. Use a grain drill that will place the seed below the zone of soil into which \*\*\*\*\*\*\*\*\*\*\* been incorporated.

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One pass incorporation is adequate; however, where the grain drill is used as the incorporation tool, mounting a springtooth harrow in front of the drill can enhance performance. Where a tillage tool is used to incorporate prior to planting, the wheat must be seeded below the soil treated with \* or crop injury may result. The wheat seed should be placed at least 1 1/2 - 2 inches deep.

#### Precautions:

- Crop injury in the form of delayed emergence and development may result from planting wheat in direct contact with treated soil.
- Do not incorporate with undercutters, field cultivators, chisel plows or discs. Any implement that incorporates \*\*\*\*\*\*\*\* deeper than the planting depth of wheat will contribute to crop injury.
- Use of seeding equipment that does not place the seed below the \*\*\*\*\*\*\* treated soil layer will result in crop injury.
- Use of \*\*\*\*\*\*\*\* in accordance with this label may result in stand reduction.
- Heavy rainfall prior to wheat emergence can cause soil compaction, and soil crusting resulting in delayed emergence, stand reduction, stunting and yield loss.

## SUPPLEMENTAL LABEL



Universal Cooperatives, Inc.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT | 0 .397

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No. /386-609

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

(For Distribution and Use Only in the State of Florida)

\*\*\*\*\*\*\*\* Applied in Irrigation Water Rings for Weed Control in Non-bearing Citrus Trees

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow use precautions
  and applicable use directions.
- Use of \*\*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*

#### **Directions for Use**

\*\*\*\*\*\*\* herbicide may be applied to non-bearing citrus trees through irrigation water rings to provide preemergence control of labeled weeds.

Mixing: Mix at a rate of 12 fluid ounces of \*\*\*\*\*\*\*\* per 500 gallons of water. Agitate until uniformly dispersed in tank.

Application: Apply 10 gallons of the \*\*\*\*\*\*\*\* herbicide mixture per four foot diameter water ring per tree. Application should be made at the second or third watering and should not be applied in combination with any other pesticide.



Minneapolis, MN 55440

with COMMENTS
In EPA Letter Dated
OCT | 0 |997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amonded, for the posticide registered order FPA Reg. No. / 386-609\_\_\_\_\_

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

(For Distribution and Use Only in the State of Montana)

# Spring Applied \*\*\*\*\*\*\* for Foxtail (Pigeongrass) Control in Spring Seeded Barley Grown Under Irrigation

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- · This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*/before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### **Directions for Use**

Broadcast Application Rate: Apply \*\*\*\*\*\*\*\*\*\* at a rate of 1 pint per acre regardless of soil texture or soil organic matter content. Do not exceed this application rate as crop injury may occur.

#### Incorporation Directions

The following tools are recommended for soil incorporation:

- 1. Chisel Plow alone or Chisel Plow with a Rod Weeder attached: A chisel plow alone should be used for the first incorporation pass only. With rod weeder attached, the chisel plow may be used for both incorporation passes. Operate 4 to 5 inches deep and at 4 to 6 mph. A chisel plow is defined as having three rows of up to 18 inch sweeps on no greater than 12 inch centers. Stagger successive rows of sweeps to ensure that no soil is left unturned.
- 2. Tandem Disc: Operate 3 to 4 inches deep and at 4 to 6 mph.
- 3. Field Cultivator: Operate 3 to 4 inches deep and at 5 or more mph. A field cultivator is defined as having 3 to 4 rows of sweeps with "C" or "S" shaped shanks spaced at intervals of 7 inches or less. Stagger successive rows of sweeps to ensure that no soil is left unturned.

#### **Planting Directions**

Plant barley 1 to 2 inches deep. Planting greater than 2 inches deep will result in increased seedling stress and decreased emergence.

#### **Irrigation Directions**

Irrigate prior to planting, or after crop emergence only. Irrigation between planting and emergence may cauce reduced crop stands or delayed emergence because of soil crusting, especially on loose friable seedbeds.

Use Precautions: Carefully follow Special Use Precautions for Small Grains in main product โลวล.

#### **Rotational Crop Planting Restrictions**

Minneapolis, MN 55440

ACCEPTED
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TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1386-609

\*\*\*\*\*\*

Plus Scepter Combinations for Weed Control in Soybeans (Not For Use In California)

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*

#### **Directions for Use**

\*\*\*\*\*\*\*\* herbicide plus Scepter herbicide may be applied as a preplant incorporated tank mix treatment. Scepter may also be applied as a preemergence overlay treatment or as an early postemergence treatment following a preplant incorporated application of \*\*\*\*\*\*\*\*\*\*.

#### Special Use Precautions

- Use of Scepter in combination with \*\*\*\*\*\*\*\*\* or as a sequential treatment following application of \*\*\*\*\*\*\*\* is subject to a number of special precautions and limitations required by the label for Scepter. Carefully read, understand and follow all use precautions, rotational crop restrictions and other limitations in the label for Scepter.
- Use of Scepter is limited to certain states. The following additional restriction is imposed by this supplemental labeling: Do not use the \*\*\*\*\*\*\*\*\*\*\* plus Scepter tank mix applied preplant incorporated, or Scepter applied as a preemergence overlay or postemergence treatment following \*\*\*\*\*\*\*\*\*\* preplant incorporated, in the "Northern Use Area" as defined by the Scepter product label.
- The user must comply with all applicable use directions, precautions and limitations imposed by the \*\*\*\*\*\*\*\* and Scepter product labels.

#### Tank Mix of \*\*\*\*\*\*\* plus Scepter - Preplant Incorporated

Apply the tank mix of \*\*\*\*\*\*\*\*\* plus Scepter as a preplant incorporated treatment up to 45 days before planting soybeans. Apply and shallowly incorporate into the soil within 24 hours. Follow soil preparation, mixing and application procedures described in the label for \*\*\*\*\*\*\*\*\*. Use incorporation equipment that provides uniform incorporation into the top 2 inches of soil. When using a disc, field cultivator, or rolling cultivator, a second pass must be made at an angle to the first pass to ensure thorough incorporation. If soybeans are planted on beds, apply and incorporate after bed formation.

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required depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is normally adequate. If adequate moisture is not received within 7 days after a surface applied treatment, a cultivation is recommended to control escaped weeds.

### Weeds Controlled (Tank Mix or Overlay)

The tank mix of \*\*\*\*\*\*\*\* plus Scepter or \*\*\*\*\*\*\* followed by overlay treatments of Scepter control the weeds listed on the label for \*\*\*\*\*\*\* alone plus these additional weeds:

cocklebur, common	pigweed	ragweed
jimsonweed	Palmer)	(common)
mallow, venice	(smooth)	(giant) <sup>1</sup>
morning-glory	(tall waterhemp)	smartweed
(pitted)	poinsettia, wild	(ladysthumb)
(smallflower)	prickly sida	(pennsylvania)
mustard species	(teaweed)	sunflower, common
nightshade, eastern black <sup>1</sup>		velvetleaf <sup>1</sup>

<sup>&</sup>lt;sup>1</sup>Eastern black nightshade, giant ragweed, and velvetleaf are controlled by preplant incorporated treatments only.

\*\*\*\*\*\*\*\*\*\*\*\*\*\* plus Scepter tank mix or Scepter overlay treatments will aid in the control and reduce competition from weeds in the following list. Control of these weeds may be erratic, ranging from poor to excellent, depending upon soil temperature, time of weed germination, depth of weed seed in soil and the amount and timing of soil moisture. Control may be improved with timely cultivation.

morning-glory <sup>2</sup>	nutsedge, yellow <sup>3</sup>
(entireleaf)	panicum, fall <sup>4</sup>
(ivyleaf)	shattercane4
(tall)	

<sup>&</sup>lt;sup>2</sup>For best activity on morning-glory species, use tank mix preplant incorporated treatments.

#### · Broadcast Application Rates for Preplant Incorporated or Preemergence Overlay Treatments:

Soil Texture	*******	Scepter Tank Mix or Overlay
	(pints)	(pints)
Coarse	1.0	0.67
Medium	1.5	0,67
Fine	2.0	0.67

#### \*\*\*\*\*\*\* Preplant Incorporated Followed by Scepter Postemergence Application

Apply \*\*\*\*\*\*\*\* as a preplant incorporated treatment. Additional weeds toleran to \*\*\*\*\*\*\*\* may be controlled using a post emergence application of Scepter. Consult the Scepter product tabel for application rates, additional weeds controlled, application directions and precautions before use.

<sup>&</sup>lt;sup>3</sup>Use tank mix preplant incorporated treatments only to aid in control of yellow nutsedge.

<sup>4\*\*\*\*\*\*\*\*</sup> alone control fall panicum and shattercane at increased rates. See the label for \*\*\*\*\*\*\*\* for special instructions.



Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated
OCT | 0 |997

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. \_\_\_\_\_\_/3 86 -609

}

\*\*\*\*\*\*\* plus Pursuit Combinations for Weed Control in Peanuts

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*.

### Directions for Use

\*\*\*\*\*\*\* herbicide may be tank-mixed with Pursuit and applied as a preplant incorporated treatment to control additional weeds. Follow application and incorporation directions provided in the label for \*\*\*\*\*\*\*\*\*\*

Broadcast Application Rates/Acref:

Soil Texture	, <del>******</del>
	(pints)
Coarse	1.0
Medium	1.5

<sup>†</sup>Refer to the labeling for use of Pursuit on peanuts for application rates.

Pursuit may also be used as a preemergence, "at cracking", postemergence or sequential (split) application following preplant soil incorporated application of \*\*\*\*\*\*\*\*\*. Refer to the labeling for use of Pursuit on peanuts for application rates, use directions, cautions and limitations before use.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 10 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No. 1386-609

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

(For Distribution and Use Only in the State of Montana)

\*\*\*\*\*\*\*\* for Weed Control in Rapeseed (Canola), Crambe Safflower and Sunflower

#### ATTENTION

- · It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*.

#### Directions for Use

Apply and incorporate \*\*\*\*\*\*\* herbicide in the fall after September 1 or in the spring before planting. Make only one application of \*\*\*\*\*\*\*\* per crop cycle. Follow soil preparation, application and incorporation instructions in the product label for \*\*\*\*\*\*\*\*\*.

Broadcast Application Rates Per Acre:

Soil Texture	******
	(pints)
Coarse	1.0
Medium	1.5
Fine	20

Use 1.5 to 2.0 pints of \*\*\*\*\*\*\* per acre on coarse and medium soils with 2-5% organic matter.

#### **Precautions**

- Rotational Crop Planting Restriction: Plant only spring seeded barley (grown under irrigated conditions), rapeseed, safflower or sunflower as rotational crops in the crop year following the crop treated with \*\*\*\*\*\*\*\*\*\*. If one of these specified crops is not planted, the land should be left idle or fallow for the entire crop year following the crop treated with \*\*\*\*\*\*\*\*\*.
- Do not graze or harvest crambe for livestock forage.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 10 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No. 1386-609

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

(For distribution and use only in the states of Arizona and California)

## \*\*\*\*\*\* 72 Hour Incorporation Delay

#### **ATTENTION**

- · It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*

#### **Directions for Use**

When \*\*\*\*\*\*\*\* herbicide is applied as a preplant incorporated treatment, the first incorporation pass must be accomplished within 24 hours after application. In Arizona and California the incorporation delay has been extended from 24 to 72 hours when applied to dry soils. However, when \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* is applied to warm soil or if wind velocity is 10 mph or higher, variable weed control may result from delaying the first incorporation beyond 24 hours.

## SUPPLEMENTAL LABEL



Universal Cooperatives, Inc.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under TPA Reg. No. 1386-609

(For distribution and use only in the state of Texas)

Incorporation with the Springtooth Harrow on Coarse Textured Soils to be Bedded up Prior to Planting

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*.

#### Directions for Use

Implement Definition: A springtooth harrow is defined as an implement with 3 to 4 rows of shanks equipped with chisel points spaced at intervals of 7 inches or less and staggered so that no soil is left unturned.

**Directions For Use:** The springtooth harrow may be used to effectively incorporate (mix) \*\*\*\*\*\*\*\* herbicide into coarse textured (sandy) soils to be bedded up prior to planting.

**Springtooth Harrow Use Directions:** \*\*\*\*\*\*\*\* must be incorporated the first time within 24 hours after application. Set the springtooth harrow to cut 3 to 4 inches deep and operate at a speed of 5 mph or greater. Two passes over the field are required with the second pass in a different direction than the first. The springtooth harrow also may be used as the first or second incorporation tool in combination with other recommended equipment for the other incorporation.

When \*\*\*\*\*\*\*\* is applied and incorporated before bedding, do not furrow out deeper than the depth to which \*\*\*\*\*\*\*\* was incorporated. Furrowing too deep will expose untreated soil and allow weeds to germinate in the bottom of the furrow.

#### **Precautions**

- · Do not incorporate with springtooth harrow if soil is too wet for good mixing,
- Avoid removal of treated soil from seedbed during planting operation since exposure of untreated soil will allow weeds to grow.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

OCT 10 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. /386-609

Weed Control in Potatoes (Not for Use in the State of Maine)

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*

#### Directions for Use

#### **Application After Planting**

Apply and incorporate \*\*\*\*\*\*\*\* herbicide after planting but before emergence, immediately following dragoff, or after potato plants have fully emerged.

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.25-1.5
Fine	1.5-2.0

- Coarse and medium soils with 2-5% organic matter 1.5 pints of \*\*\*\*\*\*\*\*\*
- Fine soils with 2-5% organic matter 2.0 pints of \*\*\*\*\*\*\*\*
- Soils with 5-10% organic matter 2.0 pints of \*\*\*\*\*\*\*\*\*
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

Incorporation Directions: Set incorporation equipment so that the bed and furrow will be uniformly covered with a layer of treated soil. If the layer of treated soil is not uniform and the herbicide is concentrated over the bed, potato emergence may be retarded and stem brittleness can occur. When applying and incorporating \*\*\*\*\*\*\*\*\*\* after potato plants have fully emerged, do not completely cover the foliage with treated soil. Likewise, do not completely cover foliage at subsequent cultivations. Ee careful that incorporation machinery does not damage potato seed pieces or elongating sprouts.

Split Applications Before and After Planting (For use in Idaho, Oregon and Washington)
On all soils apply and incorporate \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* at the rates shown below as split applications before planting and after planting when potato plants have fully emerged. Do not apply to soils containing 2% or more organic matter. Follow incorporation directions provided above for application to potatoes after planting.

(continued on back)

Broadcast Application Rates/Acre:

<u> </u>	*****
	(pints)
Before Planting	0.75
After Planting	0.75

\*\*\*\*\*\*\*\* Plus Eptam Tank-Mix - Preplant Treatment (For Use in Idaho, Oregon and Washington)
\*\*\*\*\*\*\* may be tank-mixed with Eptam and applied as a soil incorporated treatment to control additional weeds. Apply before planting and incorporate immediately.

Broadcast Application Rates/Acre:

	******
	(pints)
All soil textures	0.75

**Precautions:** Do not use this tank mix both before and after planting in the same season. Do not graze for feed forage to livestock from fields treated with the \* plus Eptam tank mix. Refer to the label for Eptam for application rates, additional use directions, precautions and limitations before use.

#### Chemigation (\*\*\*\*\*\*\*\* Only)

\*\*\*\*\*\*\*\* may be applied through properly equipped chemigation systems for weed control in potatoes. Refer to "Chemigation" section in the "General Information" section of the label for \*\*\*\*\*\*\*\*\*. Do not apply \*\*\*\*\*\*\* through any type of irrigation system unless these directions are carefully followed.

Apply \*\*\*\*\*\*\* to potatoes in 0.5 to 1 acre inch of overhead sprinkler irrigation after planting, before emergence, or immediately following dragoff or after the potato plants have fully emerged. Existing weeds must be destroyed by tillage or cultivation prior to application of \*\*\*\*\*\*\*\*\* does not control established weeds. Incorporation is not necessary when \*\*\*\*\*\*\*\* is applied by chemigation.

Broadcast Application Rates/Acre:

Soil Texture	******	
	(pints)	
Coarse	1.0	
Medium	1.5	

• Do not apply by chemigation to fine textured soils.

**Precautions:** If cultivation is required after treatment with \*\*\*\*\*\*\*\*\*\*\*\*, avoid completely covering potato plants with treated soil. Erratic weed control may result if cultivation exposes untreated soil between rows.

## SUPPLEMENTAL LABEL



<u>Univers</u>al Cooperatives, Inc.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

OCT 10 1997

Under the Federal Insceticide, Fundicide, and Redemicide Act as amended, for the posticide registered under EPA Reg. No. 1386-609

# Use Rates for Fall Application Prior to Planting Cotton or Soybeans in the Spring

(For Use Only in Arkansas, Louisiana and Mississippi)

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*

#### Directions for Use

Broadcast application rates for fall application in cotton and soybean producing areas of Arkansas, Louisiana and Mississippi:

Soil Texture	*****
	(pints)
Coarse	2.0
Medium	2.0 - 3.0
Fine	2.5 - 4.0

**Note:** Use the higher rate in the rate range under conditions of abundant rainfall and mild winter temperatures.

In U.S. cotton and soybean producing areas other than Arkansas, Louisiana and Mississippi, use application rates specified in the label for \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* for fall application.

Restriction: In the season following this treatment, plant only those crops for which \*\*\*\*\*\*\*\*\*\*\* can be applied as a preplant incorporated treatment.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

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Under the Federal Insecticide, Fundicide, and Redemicide Act as amended, for the pesticide registered under EPA Reg. No. /386-609

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

(For Distribution and Use in the State of North Dakota)

Green Foxtail (Pigeongrass) Resistance to Dinitroaniline Herbicides Including

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations stated below or imposed by the product labels for \*\*\*\*\*\*\* except as described below.

## **Crop Production Precaution**

Populations of green foxtail (pigeongrass) resistant to the dinitroaniline (DNA) class of herbicides have been identified in the state of North Dakota in fields which have a long history of dinitroaniline herbicide use. \*\*\*\*\*\*\*\*\* herbicide will not control green foxtail which has developed DNA resistance.

Therefore, the grower assumes the risk of nonperformance due to DNA resistance if \*\*\*\*\*\*\*\* is used to control green foxtail in the state of North Dakota. Alternative green foxtail control practices should be utilized in these fields.

Universal Cooperatives, Inc., strongly recommends utilizing the following management practices to prevent or delay the development or spread of DNA-resistant green foxtail in spring cereal production areas:

- 1. Rotate herbicides so that the same product or same class of herbicide is not used repeatedly year after year. \*\*\*\*\*\*\*\*\* and/or other dinitroaniline herbicides should not be applied in consecutive years and preferably should be used only once in a three year period. Consult your local extension service or Universal Cooperatives, Inc., representative for information regarding nerbicides with alternative modes of action.
- 2. Rotate crops and use alternative weed control methods, including tillage, fallow periods and/or other herbicides with different modes of action.
- 3. Thoroughly clean small grains harvested from fields with confirmed resistance before using as seed, or avoid using grain from DNA-resistant fields for seed.
- 4. Thoroughly clean all crop residues from tillage and harvesting equipment before moving out of nields with confirmed resistance.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated
OCT | 0 1997

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1386-609

# Postemergence Soil Incorporated Application for Weed Control in Cotton

(For Distribution and Use in Texas, Oklahoma and New Mexico)

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*.

#### Directions for Use

\*\*\*\*\*\*\* herbicide may be applied to cotton as a postemergence incorporated treatment from the 4-true leaf stage up to layby. Apply as a broadcast spray using ground or aerial equipment. A ground applied directed spray is recommended if cotton foliage prevents uniform coverage of the soil surface.

Incorporation Directions: \*\*\*\*\*\*\*\*\*\* must be mechanically incorporated within 24 hours. Mechanical incorporation may be accomplished with one pass of a sweep-type cultivator or properly adjusted rolling cultivator. The sweep-type cultivator should have 3 to 5 sweeps per row middle and be operated at a speed that will provide vigorous soil mixing. Set middle sweeps so as to avoid exposing untreated soil. Adjust incorporation equipment so as to avoid mechanical injury to the crop.

**Broadcast Application Rates/Acre** 

Soil Texture	<del>*****</del>
_	(pints)
Coarse	0.75 - 1.0
Medium .	1.0 - 1.5
Fine	1.5 - 2.0

- Coarse and medium soils with 2-5% organic matter 1.5 pints of \*\*\*\*\*\*\*\*
- Fine soils with 2-5% organic matter 2.0 pints of \*\*\*\*\*\*\*\*

#### **Precautions**

- Do not apply within 90 days of harvest.
- Treated soil may be shallow cultivated or rotary hoed without loss of herbicidal activity. To avoid
  bringing untreated soil to the surface and loss of weed control, do not cultivate deeper than the depth of
  incorporation.

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT | 0 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1386-169

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

# Special Use Program - Enhanced Control of Broadleaf Signalgrass in Soybeans with \*\*\*\*\*\*\*\*\* Plus Dual Tank Mix

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*

#### **Directions for Use**

Apply \*\*\*\*\*\*\* herbicide plus Dual<sup>®</sup> herbicide tank-mix as a preplant incorporated treatment for enhanced control of broadleaf signalgrass in soybeans. Follow application and incorporation directions provided in the label for \*\*\*\*\*\*\*\*\*.

**Broadcast Application Rates/Acre** 

	Soils with 0 - 2% Organic Matter	
Soil Texture	*****	Dual 8E
	(pints)	(pints)
Coarse	1.0	1.25 - 1.5
Medium	1.5	1.5 - 2
Fine	2.0	2 - 2.5

- Coarse and medium soils with 2-5% organic matter 1.5 pints of \*\*\*\*\*\*\*\*
- Fine soils with 2-5% organic matter 2.0 pints of \*\*\*\*\*\*\*\*\*

**Note:** Follow all applicable use directions, precautions and limitations in the product label for Dual herbicide.

Minneapolis, MN 55440

ACCEPTED with COMMENTS
In EPA Letter Dated
OCT | 0 1997

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Inscetteide, Pundicide, and Rodenticide Act as amended, for the pesticide of the large and EPA Reg. No. /386-609

## Special Use Program - Control of DNA-Resistant Goosegrass in Soybeans with \*\*\*\*\*\*\*\* Plus Dual Tank Mix

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*

#### Directions for Use

Apply \*\*\*\*\*\*\* herbicide plus Dual® herbicide tank-mix as a preplant incorporated treatment to control DNA-resistant goosegrass in soybeans. Follow application and incorporation directions provided in the label for \*\*\*\*\*\*\*\*\*

**Broadcast Application Rates/Acre** 

	Soils with 0 - 2% Organic Matter		
Soil Texture	*****	Dual 8E	
	(pints)	(pints)	
Coarse	1.0	1.25	
Medium	1.5	1.5	
Fine	2.0	2	

- Coarse and medium soils with 2-5% organic matter 1.5 pints of \*\*\*\*\*\*\*\*
- Fine soils with 2-5% organic matter 2.0 pints of \*\*\*\*\*\*\*\*

Note: Follow all applicable use directions, precautions and limitations in the product label for Dual herbicide.



Minneapolis, MN 55440

ACCEPTED with COMMENTS In EPA Letter Dated

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. /386 - 609......

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Preplant Incorporated Treatment for Weed Control in Direct Seeded Chinese Cabbage or Kohlrabi

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the product container.

#### Directions for Use

Direct Seeded Chinese Cabbage or Kohlrabi: Apply \*\*\*\*\*\*\* herbicide as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	<del>*******</del> -
	(pints)
Coarse	1.0
Medium	1.0
Fine	1.5

All Soils with 2-5% organic matter - 1.5 pints of \*\*\*\*\*\*\*\*

### PRECAUTIONS:

Chinese cabbage and kohlrabi tolerance to Trifluralin 4EC is marginal.

Additionally, the combined effect of certain cultural practices and unfavorable soil or environmental conditions may cause excessive crop seedling stress resulting in retarded crop growth, stand reduction, and reduced yield.

For best results, observe the following cultural practices or precautions when applying Trifluralin 4EC:

- ·Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration, or drought may weaken crop seedlings and increase the possibility of crop stress and damage.
- •Do not exceed recommended application rates. This is particularly important on coarse textured or low organic matter soils.
- ·Carefully follow incorporation directions.
- ·Use only high quality seed and plant at maximum seeding rates.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

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

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

The Coulter Caddy as an Option for the Second Incorporation Pass for in Soybeans Grown Under Reduced or Conservation Tillage Conditions

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow use precautions
  and applicable use directions.
- Except as described below, use of \*\*\*\*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*\*.

#### **Directions For Use**

\*\*\*\*\*\*\* herbicide can be applied either in the fall or in the spring as a preplant incorporated treatment for weed control in soybeans grown under reduced or conservation tillage conditions. Make only one application per crop cycle.

The second incorporation can be accomplished with an aggressive Coulter Caddy system used in combination with the grain drill used for broadcast planting of soybeans. This method can be employed on soils that are in good tilth and have moderate soil moisture. For best results, the Coulter Caddy should be equipped and operated as follows:

- 1. Drills should be spaced no more than 8 inches apart.
- 2. Use fluted coulters that are 3/4 to 1 1/4 inches wide.
- 3. Set coulters to penetrate the soil to a depth of 1 1/2 to 2 inches.
- 4. Operate drill a minimum of 6 mph.
- 5. The drill should be followed by a Furst Harrow or Two-bar tine harrow to aid in leveling of the soil and crop residue.

Note: The Coulter Caddy system is not recommended for the second incorporation pass for spring applied Trifluralin 10G herbicide or dry bulk fertilizer impregnated with liquid formulations of Trifluralin 4EC.



Minneapolis, MN 55440

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In EPA Letter Dated

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Under the Federal Issociicide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No.

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

## Weed Control in Eggplant

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the product container.

#### Directions for Use

## Transplant Eggplant

Apply and incorporate \*\*\*\*\*\*\*\* herbicide before transplanting or apply post-transplant and incorporate. When applied post-transplant, direct liquid sprays to the soil between rows and beneath plants.

Broadcast Application Rates/Acre:

Soil Texture	*****	
	(pints)	
Coarse	1.0	
Medium	1.0	
Fine	1.5	

Coarse and medium soils with 2-5% organic matter - 1.5 pints of \*\*\*\*\*\*\*\*\*

#### PRECAUTION:

Eggplant tolerance to Trifluralin 4EC is marginal.

Additionally, the combined effect of certain cultural practices and unfavorable soil or environmental conditions may cause excessive crop seedling stress resulting in retarded crop growth, stand reduction, and reduced yield.

For best results, observe the following cultural practices or precautions when applying Trifluralin 4EC:

- ·Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration, or drought may weaken crop seedlings and increase the possibility of crop stress and damage.
- •Do not exceed recommended application rates. This is particularly important on coarse textured or low organic matter soils.
- ·Carefully follow incorporation directions.

## SUPPLEMENTAL LABEL

CO-OP

Universal Cooperatives, Inc.

Minneapolis, MN 55440

with COMMENTS In EPA Letter Dated

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

# TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

## Preplant Incorporated Treatment for Weed Control in Lentils (For Distribution and Use Only in the State of North Dakota)

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the product container.

#### Directions for Use

#### Lentils

Apply and incorporate \*\*\*\*\*\*\*\* herbicide in the spring before planting.

Broadcast Application Rates/Acre:

Soil Texture	*****
	(pints)
Coarse	1.0
Medium	1.0
Fine	1.5

#### PRECAUTIONS:

Lentil tolerance to Trifluralin 4EC is marginal.

Additionally, the combined effect of certain cultural practices and unfavorable soil or environmental conditions may cause excessive crop seedling stress resulting in retarded crop growth, stand reduction, and reduced yield.

For best results, observe the following cultural practices or precautions when applying Trifluralin 4EC:

- ·Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration, or drought may weaken crop seedlings and increase the possibility of crop stress and damage.
- •Do not exceed recommended application rates. This is particularly important on coarse textured or low organic matter soils.
- ·Carefully follow incorporation directions.
- ·Use only high quality seed and plant at maximum seeding rates.



Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

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TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No. 1386-609

# Fall Postplant Soil Incorporated Application for Suppression of Common Windgrass in Winter Wheat

(For Distribution and Use Only in the State of Michigan)

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*

#### **Directions For Use**

\*\*\*\*\*\*\* herbicide may be applied as a postplant soil incorporated treatment for suppression of common windgrass in winter wheat. Apply within 2 days after planting and incorporate one time within 24 hours. Use tillage equipment to destroy existing weeds prior to planting. Soil should be relatively free of plant residue, in good tilth and free from clods.

**Broadcast Application Rates:** 

Soil Texture	*****	
	(pt/A)	
Coarse	1.0	
Medium	1.5	
Fine	2.0	

Incorporation Directions: Use a rotary hoe or other suitable equipment to incorporate \*\*\*\*\*\*\*\*\*\*\* into the upper one-inch of soil. Best results are obtained when the soil is not crusted. Operate the equipment at a speed necessary to achieve uniform soil mixing (rotary hoe, 8 to 10 mph). Set equipment so as to not disturb planted seed or mix the herbicide into the seed zone as crop injury may result if wheat seed is in direct contact with treated soil.

Planting Directions: Set planting equipment to place seed at least 1.5 inches deep.

Precautions: Under certain conditions, delayed crop emergence and or stand reduction may occur when \*\*\*\*\*\*\*\*\* is applied to wheat. The combined effect of certain cultural practices and unfavorable soil or environmental conditions may cause excessive crop seedling stress resulting in retarded crop growth, stand reduction and possibly reduced yield. Carefully follow Special Precautions for Use of \*\*\*\*\*\*\*\* in Small Grains in the label affixed to the container for \*\*\*\*\*\*\*\* to minimize potential crop stress.

Note: Risk of crop injury from \*\*\*\*\*\*\* applied to winter wheat may be increased if \*\*\*\*\*\*\*\*, Sonalan\*, or Prowl herbicides were applied during the current growing season to the preceding crop.

ACCEPTED
with COMMENTS
In EPA Letter Dated

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

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

(For distribution and use only in the state of California)

\*\*\*\*\*\*\* Application Over Standing or Shredded Cotton Stalks
After September 1 for Weed Control in Cotton

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*.

#### Directions for Use

\*\*\*\*\*\*\* herbicide may be broadcast applied, after September 1, over the top of standing cotton stalks or after shredding using ground or aerial equipment. \*\*\*\*\*\* must be incorporated once within 24 hours after application using a disc operated at 4 to 6 mph. The second incorporation may be delayed until spring prior to bedding. To avoid dilution of the herbicide or bringing untreated soil to the surface, the treatment should not be chiseled, ripped or deep plowed following incorporation.

Refer to the label of the \*\*\*\*\*\*\* product used for details on fall application, soil preparation, application rates and weeds controlled.

Minneapolis, MN 55440

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 10 '327

TRIFLURALIN 4EC HERBICIDE EPA Reg. No. 1386-609

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

For Distribution and Use Only in the States of Alabama, Florida, Georgia, and Texas

\*\*\*\*\*\* Plus Atrazine Tank Mix for Weed Control in Field Corn

#### ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for \*\*\*\*\*\*\* before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of \*\*\*\*\*\*\*\* according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for \*\*\*\*\*\*\*\*\*\*\*,

#### Directions for Use

#### \*\*\*\*\*\* Plus Atrazine Tank Mix

\*\*\*\*\*\*\* herbicide may be applied in tank mix combination with atrazine herbicide plus an emulsifiable oil or oil concentrate when com is from the 2-leaf stage of growth up to 12 inches tall and weeds are no more than 1 1/2 inches in height. A period of 24 to 48 hours is required to obtain atrazine postemergence activity after which the preemergence activity of the \*\*\*\*\*\*\*\* plus atrazine combination may be activated by 0.5 inch or more of rainfall or overhead sprinkler irrigation or mechanical incorporation. Note: In Texas, the tank mix of \*\*\*\*\*\*\*\*\*\*\*\*\*\* plus atrazine may be applied only to coarse textured soils.

Incorporation Directions: Mechanical incorporation may be accomplished with one pass of a sweep-type cultivator or properly adjusted rolling cultivator. The sweep-type cultivator should have 3 to 5 sweeps per row middle and be operated at a speed that will provide vigorous soil mixing. Set middle sweeps so as to avoid exposing untreated soil. Adjust incorporation equipment so as to avoid mechanical injury to the crop.

**Broadcast Application Rates/Acre:** 

Soil Texture ******	
	(pints)
Coarse†	1.0††
Medium	1.0 - 1.5
Fine	1.5 - 2.0

In Texas, the tank mix of \*\*\*\*\*\*\*\* plus atrazine may be applied only to coarse textured soils.

#### **Precautions**

- Do not apply to sweet corn or corn grown for seed.
- Do not apply \*\*\*\*\*\*\*\*\* to corn as a preplant or preemergence treatment or crop injury Glav occur.
- Where corn is planted in a furrow, apply \*\*\*\*\*\*\*\* only after a cultivation to move soil into the row.
- Refer to the atrazine product label for application rates, additional use directions, precautions and limitations before use.

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