

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PFI, DE 1386-609

10/20

JUL 18 1995

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

Dear Ms. Ramswick:

SUBJECT: Label Amendment  
Trifluralin 4EC Herbicide  
EPA Registration No. 1386-609  
Your Application Dated May 4, 1995, to Add Rapeseed  
(Canola) and Revise Fall Application Time Frame.

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 statement "Contains Petroleum Distillates" below the Ingredient Statement, as a footnote to the inert ingredients.
2. Revise the first paragraph under "HAZARDS TO HUMANS AND DOMESTIC ANIMALS" (above the "PERSONAL PROTECTIVE EQUIPMENT" requirements) to read as follows:

"WARNING - Causes skin irritation and substantial but temporary eye injury. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals."

3. Revise the "STATEMENT OF PRACTICAL TREATMENT" to read as follows:

"If On Skin: Wash with plenty of soap and water. Get medical attention.

If In Eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

RD:STANTON:PM Team 23:Rm. 235:305-5218:Disk #1:S486974.LET

## CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Jul 17, 1995							

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If Swallowed: Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

If Inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention."

4. Add appropriate Pesticide Storage instructions under "STORAGE AND CONTAINER REUSE AND DISPOSAL." The proposed revision to this section which you submitted by FAX to Ms. Susan Stanton on July 13, 1995 (addition of the statement, "avoid freezing") is not adequate. Please refer to PR Notice 83-3 for guidance in developing storage instructions which are appropriate for the subject product.
5. Submit one final printed copy of the label before releasing the product for shipment.

A stamped copy is enclosed for your records.

Sincerely yours,

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

Enclosure

30/22

# 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 la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

REFER TO INSIDE OF LABEL BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE, INCLUDING STORAGE AND DISPOSAL.

### ACTIVE INGREDIENT:

Trifluralin (a,a,a-trifluoro-2,6-dinitro-N, N-dipropyl-p-toluidine) . . . 44.5<sup>00</sup>

INERT INGREDIENTS . . . . . 55.5<sup>00</sup>

Total . . . . . 100.0<sup>00</sup>

Contains 4 Pounds Trifluralin Per Gallon

**Net Contents: 2 1/2 Gallons**

EPA Reg. No. 1386-609

EPA Est. No. Used Corresponds To  
Letter to Lot No.: A-1386-0N-1  
B-32761-MO-3  
C-34704-MS-1  
D-42750-MO-1



**Universal Cooperatives, Inc.**

**Minneapolis, MN 55440**

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
JUL 18 1995

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

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
WARNING**

Harmful if swallowed or absorbed through the skin. Avoid breathing vapors or spray mist. Do not get in eyes. Avoid contact with skin or clothing. Do not contaminate foodstuffs or feeds. Keep out of the reach of children.

**PERSONAL PROTECTIVE EQUIPMENT**

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

Applicators and other handlers must wear:

- \* Coveralls over short-sleeved shirt and short pants
- \* Chemical-resistant gloves, such as barrier laminate or viton
- \* Chemical-resistant footwear plus socks
- \* Protective eyewear
- \* Chemical-resistant headgear for overhead exposure
- \* Chemical-resistant apron when cleaning equipment, mixing, or loading

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.

**STATEMENT OF PRACTICAL TREATMENT**

**If In Eyes:** Flush eyes for at least 15 minutes with water. Call a physician immediately. **If On Skin:** Wash affected areas with soap and water.

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

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. For terrestrial uses, do not apply directly to water, or 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 by cleaning of equipment or disposal of wastes.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not store near heat or flame.

**DIRECTIONS FOR USE**

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

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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and 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 over short-sleeved shirt and short pants
- \* Chemical-resistant gloves, such as barrier laminate or viton
- \* Chemical-resistant footwear plus socks
- \* Protective eyewear
- \* Chemical-resistant headgear for overhead exposure

**DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.**

**SPECIAL PRECAUTIONS**

Applied according to directions and under normal growing conditions, TRIFLURALIN AEC will not harm the treated crop. Over application may result in crop injury or a soil residue.

Uneven application or improper soil incorporation of TRIFLURALIN AEC can result in erratic weed control or crop injury. Seedling disease, cold weather

er, deep planting, excessive moisture, high salt concentration or drought may weaken crop seedlings and increase the possibility of damage from TRIFLURALIN AEC. Under these conditions, delayed crop development or reduced yields may result.

**In the Western United States — Arizona, Colorado, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming:**

To avoid crop injury in arid areas, do not plant sugar beets, red beets or spinach for 12 months after a TRIFLURALIN AEC spring application or for 14 months after a TRIFLURALIN AEC fall application. Plow the land to a depth of 12 inches prior to planting sugar beets to prevent the possibility of crop injury. To avoid crop injury do not plant sorghum (milo), corn or oats for 14 months after a TRIFLURALIN AEC spring application or for 16 months after a TRIFLURALIN AEC fall application. If land has not been irrigated, do not plant any of these crops for 18 months after a TRIFLURALIN AEC spring application or 20 months after a fall application.

**In the Western United States — Those portions of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota and Texas where at least 25 inches of irrigation and/or rainfall (total) was used to produce the crop:**

Do not plant sorghum or oats for 12 months after a TRIFLURALIN AEC application. If less than 25 inches of total water was used to produce the crop, do not plant sorghum or oats for 18 months after a TRIFLURALIN AEC application. Cool wet weather conditions during the early stage of growth may increase the possibility of injury to sorghum.

**In the Eastern United States:**

Moldboard plow before planting sugar beets where a TRIFLURALIN AEC spring application was made the previous season. Also note planting restrictions listed in the section on control of rhizome Johnsongrass.

**In Florida Only:**

To avoid crop injury do not plant vegetable crops other than those listed on the label within 5 months following the application of TRIFLURALIN AEC.

#### WEEDS AND GRASSES CONTROLLED

TRIFLURALIN AEC will not control established weeds.

**Grasses Controlled:**

Annual bluegrass (*Poa annua*), Barnyardgrass (Watergrass) (*Echinochloa* sp.), Brachiaria (Signalgrass) (*Brachiaria* sp.), Bromegrass (Cheatgrass) (*Bromus tectorum*), Cheat (Chess) (*Bromus secalinus*), Crabgrass (Large crabgrass) (Smooth crabgrass) (*Digitaria* sp.), Fall panicum (Spreading panicum) (*Panicum dichotomiflorum*) - see page 6 for special instructions, Foxtails (Bottlegrass) (Bristlegrass) (Giant foxtail) (Green foxtail) (Pigeongrass) (Robust foxtail) (Yellow foxtail) (*Setaria* sp.), Goosegrass (Silver crabgrass) (Silvergrass) (Wiregrass) (Yardgrass) (*Elyusine indica*), Guinea grass (*Panicum maximum*) - see page 13 for special instructions, Johnsongrass (Seedling and rhizome) (*Sorghum halepense*) - see page 15 for special instructions on rhizome control, Junglerice (*Echinochloa colonum*), Ragwortgrass (Itchgrass) (*Rottboellia exaltata*) - see page 9 for special instructions, Sandbur (Burrgrass) (*Cenchrus incertus*), Sprangletop (*Leptochloa filiformis*), Sunkgrass (Lovegrass) (*Eragrostis cilianensis*), Texas panicum (Buffalograss) (Coloradograss) (*Panicum texanum*), Wild cane (Shattercane) (*Sorghum bicolor*) - see page 6 for special instructions.

**Broadleaf Weeds Controlled:**

Carpetweed (*Mollugo verticillata*), Chickweed (*Stellaria media*), Field bindweed (*Convolvulus arvensis*) - see page 13 for special instructions, Florida pusley (Florida purslane) (Mexican clover) (Pusley) (*Richardia scabra*), Goosefoot (*Chenopodium hybridum*), Henbit (*Lamium amplexicaule*) - Fall application only, Knotweed (*Polygonum aviculare*), Kochia (Fireweed) (Mexican fireweed) (*Kochia scoparia*), Lambsquarters (*Chenopodium album*), Pigweeds (Carelessweed) (Prostrate pigweed) (Redroot) (Rough pigweed) (Spiny pigweed) (*Amaranthus* sp.), Puncturevine (Western U.S. only) (Caltrop) (*Tribulus terrestris*), Purslane (*Portulaca oleracea*), Russian thistle (Tumbleweed) (*Salsola kali*), Stinging nettle (Nettle) (*Urtica dioica*).

TRIFLURALIN AEC will not control certain resistant weeds such as cocklebur, Jimsonweed, nutsedge (nutgrass), ragweed, velvetleaf or Venice mallow.

**Weeds Controlled in Soybeans by the TRIFLURALIN AEC/Sancor or TRIFLURALIN AEC/Lexone Tank Mix in addition to those controlled by TRIFLURALIN AEC alone.** (See pages 6, 7 for special instructions.)

Jimsonweed (*Datura stramonium*), Mallow, Venice (Flower-of-an-hour) (*Hibiscus trionum*), Mustard, wild (Charlock) (Field mustard) (*Brassica kaber*), Ragweed, common (*Ambrosia artemisiifolia*), Sesbania, hemp (Coffeebean) (Indigo) (*Sesbania exaltata*), Smartweed, annual (Pennsylvania smartweed) (Smartweed) (*Polygonum pensylvanicum*), Prickly sida (Teaweed) (Spiny sida) (*Sida spinosa*), Velvetleaf (Butterprint) (Buttonweed) (Cottonweed) (Elephant's Ear) (Indian mallow) (Piemaker) (*Abutilon theophrasti*).

Cocklebur, morningglory and giant ragweed. Control of cocklebur, morning glory and giant ragweed (horseweed) may be erratic, ranging from poor to excellent depending upon soil temperature, time of weed germination, depth of weed seed in the soil and the amount and timing of soil moisture. Control may be improved with timely cultivation.

**Weeds Controlled in Dry Beans and Potatoes by the TRIFLURALIN AEC/Eptam Tank Mix in addition to those controlled by TRIFLURALIN AEC alone.** (See pages 8, 9, 11, 12, 13 for special instructions.)

Henbit (Spring applications) (*Lamium amplexicaule*), Nightshade, black (*Solanum nigrum*), Nightshade, hairy (*Solanum sarachoides*), Nutsedge (Nutgrass) (Purple nutsedge) (Yellow nutsedge) (*Cyperus* sp.), Oat, wild (*Avena fatua*).

**Weeds Controlled in Soybeans by the TRIFLURALIN AEC/Amiben Tank Mix in addition to those controlled by TRIFLURALIN AEC alone.** (See page 8 for special instructions.)

Ragweed, common (*Ambrosia artemisiifolia*), Smartweed, Pennsylvania (*Polygonum pensylvanicum*), Velvetleaf (Buttonweed) (*Abutilon theophrasti*).

TRIFLURALIN AEC preplant soil incorporated with an Amiben application preemergence controls the following additional weeds:

Coffeebean (Sesbania) (*Sesbania exaltata*), Mustard, wild (*Brassica kaber*), Nightshade, black (*Solanum nigrum*), Prickly sida (Teaweed) (*Sida spinosa*), Ragweed, common (*Ambrosia artemisiifolia*), Spurge, annual (*Euphorbia maculata*), Smartweed, Pennsylvania (*Polygonum pensylvanicum*), Sunkgrass (*Eragrostis cilianensis*), Velvetleaf (Buttonweed) (*Abutilon theophrasti*).

**Weeds Controlled in Cotton by TRIFLURALIN AEC/Capene Tank Mix in addition to those controlled by TRIFLURALIN AEC alone.** (See pages 10, 11 for special instructions.)

Smartweed, Prickly sida (Teaweed), Annual morningglory, Ragweed, Groundcherry (Annual), Mustard, Malva, Wild oat.

The tank mix also controls shallow-germinating seedlings of Cocklebur and Coffeebean.

**Weeds Controlled in Cotton by the TRIFLURALIN AEC/Cotoran Tank Mix or Cotoran overlaid post plant preemergence in addition to those controlled by TRIFLURALIN AEC alone,** where TRIFLURALIN AEC has been applied as a preplant soil incorporated herbicide in cotton. (See pages

5, 6 for special instructions.)

Ryegrass; Buttonweed; Cocklebur; Goosehead; Groundcherry; Wright; Jimsonweed; Morningglory; Prickly sida (Teaweed); Ragweed; Sesbania; Sicklepod; Smartweed; Tumbleweed.

Weeds controlled in cotton by an overfly treatment of Karmex post plant preemergence in fields where TRIFLURALIN 4EC has been applied as a preplant soil incorporated herbicide in addition to those controlled by TRIFLURALIN 4EC alone. (See page 6 for special instructions.)

Ragweed, Groundcherry (Annual), Dogfennel, Pennycress, Morningglory (Annual), Shepherds-purse, Velvetgrass, Wild lettuce, Wild mustard.

The tank mix of TRIFLURALIN 4EC plus Avenex BW will control wild oats in peas grown in Idaho, Oregon, and Washington in addition to the weeds controlled by TRIFLURALIN 4EC alone. (See page 12 for special instructions.)

#### APPLICATION INSTRUCTIONS

TRIFLURALIN 4EC is a preemergence herbicide which is mixed (incorporated) into the soil to provide long-lasting control of a wide range of annual grasses and broadleaf weeds. TRIFLURALIN 4EC controls weeds as they germinate but will not control established weeds.

##### SOIL TEXTURE

One key to getting good results with TRIFLURALIN 4EC is to know your soil texture so that you can apply the correct rate. The amount of TRIFLURALIN 4EC you apply to your soil will vary with the soil texture. A fine-textured soil requires more TRIFLURALIN 4EC than a coarse-textured soil.

##### SOIL TEXTURE — Guide:

Refer to the following guide to determine your soil texture:

Coarse** Soils	Sand
	Loamy sand
	Sandy loam
Medium Soils	Loam
	Silty clay loam*
	Silt loam
	Silt
Fine** Soils	Sandy clay loam*
	Clay
	Clay loam
	Silty clay loam*
	Silty clay
	Sandy clay
	Sandy clay loam*

\* 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 predominately sand or silt, they are usually classified as medium-textured soils; if predominately clay, they are usually classified as fine-textured soils.

##### SOIL PREPARATION

Destroy existing weeds before TRIFLURALIN 4EC application. Chop and thoroughly mix crop residues into the soil to a depth of at least 4 to 6 inches by deep plowing or disking before a TRIFLURALIN 4EC application. Use machinery that breaks up large clods before a TRIFLURALIN 4EC application.

##### APPLICATION

Add the recommended amount of TRIFLURALIN 4EC to clean water in the spray tank during the filling operation. Agitate before spraying. Apply in from 5 to 40 gallons of water per acre (broadcast basis), using any properly calibrated low-pressure herbicide sprayer that will apply the spray uniformly. As the amount of water used (spray volume) decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform application. Apply TRIFLURALIN 4EC to the soil surface and incorporate in the same operation, if possible. Do not apply TRIFLURALIN 4EC to soils which are wet or in poor condition. Do not apply TRIFLURALIN 4EC to soils which are subject to prolonged periods of flooding.

##### AERIAL APPLICATION

For best results from aerial application of TRIFLURALIN 4EC, apply to a dry soil surface at a spray volume of from 5 to 10 gallons per acre. Adjust pump pressure, nozzle arrangements, flying speed and flying height to provide a uniform application to the soil surface. Use markers to assure proper application spray widths.

Do not apply TRIFLURALIN 4EC by aircraft when the wind is blowing at a velocity of 5 mph or greater. This will cause drift of spray particles and result in a non-uniform application.

#### INCORPORATION DIRECTIONS

##### INCORPORATION BEFORE PLANTING

For best results TRIFLURALIN 4EC should be incorporated as soon as possible after application. TRIFLURALIN 4EC must be incorporated one time within 24 hours after application. A second incorporation is required with most equipment (see below for specific instructions). If TRIFLURALIN 4EC is applied to a wet, warm soil surface or if the wind velocity is 10 mph or higher variable weed control may result from delaying the first incorporation beyond 24 hours.

Incorporation should place the TRIFLURALIN 4EC into the top 2 to 3 inches of the final seedbed. Generally, incorporation equipment will place the chemical approximately half as deep as the equipment is run. For example, a disc running 4 inches deep will incorporate TRIFLURALIN 4EC approximately 2 inches deep.

##### INCORPORATION AFTER PLANTING

(Check crop list for those crops approved for incorporation after planting.)

When incorporating TRIFLURALIN 4EC after planting or on established row crops use PTO-driven equipment or rolling cultivators. Adjust equipment to till the soil over the seed or throw treated soil toward the crop. Avoid disturbing the seed or mechanically damaging the crop.

##### INCORPORATION IN BEDDED CULTURE

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For effective weed control, TRIFLURALIN 4EC should be incorporated into the top 2 to 3 inches of the final seedbed. Knock off beds to planting height before application of TRIFLURALIN 4EC and incorporation on bedded ground. If TRIFLURALIN 4EC is applied and incorporated before bedding, do not furrow out deeper than the depth to which TRIFLURALIN 4EC was incorporated. Furrowing too deep will expose untreated soil and allow weeds to germinate in the bottom of the furrow.

Avoid removal of treated soil from the seedbed before or during the planting operation. This will expose untreated soil and allow weeds to germinate in the drill row.

#### INCORPORATION EQUIPMENT

Use machinery that mixes TRIFLURALIN 4EC thoroughly with the soil. Shallow incorporation with implements set to cut less than 2 inches deep may result in erratic weed control. Use of incorporation equipment not listed upon the label may result in poor or erratic weed control and/or crop injury.

#### Recommended equipment includes:

**Disc:** set to cut 4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph. A tandem or double-disc operated one time does not provide adequate incorporation.

**Field cultivator:** set to cut 3 to 4 inches deep and operated at 5 mph or more. The field cultivator used alone or in combination with the double-disc will provide effective incorporation providing the following instructions are used:

1. Two passes over the field with a field cultivator with the second pass running at an angle to the first. Do not set cultivator to cut deeper than 4 inches, particularly on the second pass, since untreated soil may be turned up.

2. Field cultivator used for the first pass and the double-disc used for the second pass.

3. Double-disc used for the first pass and the field cultivator used for the second pass.

**NOTE:** A field cultivator is defined as an implement with 3 to 4 rows of sweeps, spaced at intervals of 7 inches or less and staggered so that no soil is left unturned. Chisel points should not be used.

**Rolling cultivator:** set to cut 2 to 4 inches deep and operated 2 times at 6 to 8 mph. Rolling cultivators are adequate for use on coarse and medium-textured soils only (except when used in sugarcane where the rolling cultivator may be used on fine-textured soils).

**Bed conditioner (Do-AM):** set to cut 2 to 4 inches deep and operated one time at 4 to 6 mph. Bed conditioners are adequate for use on coarse and medium-textured soils only.

**Mulch treader and other similar disc-type implements:** set to cut 3 to 4 inches deep and operated at 5 to 8 mph in two different directions.

**P.T.O.-driven equipment (tillers, cultivators, hoes):** set to cut 2 to 3 inches deep with rotors spaced to provide a clean sweep of the soil and operated one time. P.T.O.-driven equipment should not be operated at a speed greater than 4 mph.

Other equipment, including the flexible line-tooth harrow (Flexline, Melroe) is also recommended but only for the special programs for which it is specified in this label.

#### CULTIVATION AFTER PLANTING

Soil treated with TRIFLURALIN 4EC may be shallow-cultivated, rotary-hoed or hand-hoed without reducing the weed control activity of TRIFLURALIN 4EC. Do not cultivate deeper than the TRIFLURALIN 4EC treated layer of soil since this may bring untreated soil to the surface and prior weed control may result.

#### REGIONAL USE MAP



All crop recommendations are given on a regional basis. The dividing line between the Eastern and Western United States is that point where the average rainfall per year is a minimum of 20 to 25 inches. Use the recommendation in your region only (refer to map).

#### CROP RECOMMENDATIONS

##### Eastern United States

#### GENERAL

These recommendations are given as the broadcast (overall) rates of TRIFLURALIN 4EC per acre. For band applications, use proportionately less. Apply TRIFLURALIN 4EC anytime after January 1 when the soil can be worked. TRIFLURALIN 4EC is not recommended on muck soils. Where a rate range is



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shown, use the lighter rate for more coarse soils or soils with lower organic matter.

**COTTON — Preemergence applications:**

Apply and incorporate TRIFLURALIN 4EC before planting, at planting or immediately after planting using the following broadcast rates per acre:

Coarse soils	1 pint
Medium soils	1 1/2 pints
Fine soils	2 pints
Coarse soils with 2 to 5% organic matter	1 1/2 pints
Soils with 5.1 to 10% organic matter	2 to 2 1/2 pints

When incorporating after planting (post-plant), care must be taken not to disturb the seed.

Seedling diseases may weaken cotton plants and increase the possibility of damage from TRIFLURALIN 4EC. To control seedling disease, use a good fungicide program.

**COTTON — Post-emergence applications:**

Apply TRIFLURALIN 4EC anytime up to layby, but not less than 90 days before harvest. Direct layby applications to the soil between the rows and beneath emerged cotton plants. Use the same rates as for a preemergence application.

**COTTON — Fall application:**

See page 15 on Fall Application.

**COTTON — Fall panicum control:**

For the control of fall panicum in the states of Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia, apply and incorporate TRIFLURALIN 4EC at the broadcast rate of 2 pints per acre on both coarse and medium soils. Plant cotton after early season adverse weather conditions have passed. Do not plant cotton deeper than 1 inch. Crop injury in the form of delayed growth or reduced yields may occur under adverse cool, wet weather conditions when TRIFLURALIN 4EC is used according to these special recommendations.

**COTTON — Rhizome Johnsongrass control:**

See page 16 on Rhizome Johnsongrass control.

**COTTON — More Complete Control of Pigweed and Seedling Johnsongrass in Cotton grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Southeastern Missouri, North Carolina, South Carolina, Tennessee and Southern Virginia:**

For more complete control of pigweed and seedling Johnsongrass, TRIFLURALIN 4EC may be applied preplant at a broadcast rate per acre of from 1 to 1 1/2 pints on coarse soils, from 1 1/2 to 2 pints on medium soils and 2 pints on fine soils except in the state of Louisiana where 3 pints per acre are recommended on fine soils.

**Precaution:** Plant cotton after early season adverse weather conditions have passed. Do not plant cotton deeper than 1 1/2 inches. Crop injury in the form of delayed growth may occur under adverse cool, wet weather conditions early in the season when TRIFLURALIN 4EC is used according to these recommendations.

**COTTON — More Complete Weed and Grass Control in Certain Counties Along the Texas Gulf Coast:**

For more complete control of those weeds and grasses listed in the TRIFLURALIN 4EC label in the Texas Gulf Coast Counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, TRIFLURALIN 4EC may be applied up to 2 weeks before planting at a broadcast rate of 1 1/2 pints on coarse soils, 2 pints on medium soils and 3 pints on fine soils.

See precaution in preceding paragraph.

**COTTON — TRIFLURALIN 4EC/Caparol tank mix for cotton grown in Texas:**

See page 10.

**COTTON — TRIFLURALIN 4EC/Cotoran tank mix except in Arizona and California:**

The TRIFLURALIN 4EC/Cotoran tank mix effectively controls all the annual grasses and broadleaf weeds listed on the TRIFLURALIN 4EC label (See pages 2, 3) plus many additional annual grasses and broadleaf weeds (See pages 2, 3). Follow normal TRIFLURALIN 4EC procedures for soil preparation. Apply TRIFLURALIN 4EC/Cotoran tank mix in 15 to 40 gallons of clean water per acre using any properly calibrated low pressure herbicide sprayer that will apply the spray uniformly.

**Broadcast Rates Per Acre:**

	TRIFLURALIN 4EC	Cotoran 80W
Coarse soils	1 pint	1 1/4 pounds
Medium soils	1 1/2 pints	2 pounds
Fine soils	2 pints	2 1/2 pounds

**Mixing Directions:**

Carefully follow the procedures on the Cotoran 80W label for making a Cotoran slurry and adding it to a partially filled tank of water. After the Cotoran is thoroughly mixed with the partially filled tank of water, add the TRIFLURALIN 4EC and continue filling. Agitate continuously throughout the filling and application operations. Follow normal TRIFLURALIN 4EC incorporation procedures. Do not leave spray mixture in tank without constant agitation. If bypass agitation is used, it should terminate at the bottom of the tank to minimize foaming. **Precautions:** Do not use the tank mix in Arizona and California. Do not plant crops other than cotton on the treated land within 6 months after the application of TRIFLURALIN 4EC plus Cotoran or injury may occur.

**West Texas Only:** Do not use the tank mix of TRIFLURALIN 4EC plus Cotoran on sandy, loamy sand or fine sandy loam soils. Do not use on cotton planted in furrows.

**Arkansas, Louisiana, and Mississippi Only:** Use 1 pound Cotoran 80W in tank mix with TRIFLURALIN 4EC on sandy loam soils low in organic matter.

**New Mexico:** Cotton can be planted the next spring. Do not plant treated areas to crops other than cotton on treated land until 1 year after last application. Do not use on sandy or coarse textured soil of less than 1% organic matter.

Do not feed foliage from treated cotton plants or gin trash to livestock.

The tank mix of TRIFLURALIN 4EC plus Cotoran is not recommended to be applied in liquid fertilizer.

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Refer to Cotoran label for cautions, precautions, and instructions.

**Cotoran overlay.** Refer to the Cotoran label for cautions, precautions and instructions.

**COTTON** - Preplant incorporated TRIFLURALIN 4EC and surface applied, preemergence Karmex for weed control in cotton grown east of the Mississippi River plus Arkansas, Southeastern Missouri, Louisiana, and Eastern Texas:

Preplant soil incorporated applications of TRIFLURALIN 4EC (See page 5 for TRIFLURALIN 4EC rates) followed by a surface applied, post-plant, pre-emergence application of Karmex 80W effectively controls all the weeds controlled by TRIFLURALIN 4EC (See page 2) plus many additional weeds (See pages 2-3). Apply Karmex 80W at 0.6 to 1.5 pounds per broadcast acre to the soil surface after planting but prior to crop emergence. The higher rates are used on heavier soil types. Do not use Karmex on light (sandy or low organic) soils. Do not use on heavy clay soils above 10 percent organic matter. Consult the Karmex label for additional instructions, cautions and precautions.

**SOYBEANS:**

Apply and incorporate TRIFLURALIN 4EC before planting using the following broadcast rates per acre:

Coarse soils	1 pint
Medium soils	1 1/2 pints
Fine soils	2 pints
Coarse soils with 2 to 5% organic matter	1 1/2 pints
Soils with 5.1 to 10% organic matter	2 to 2 1/2 pints (except charcoal soils in Arkansas, Louisiana and Mississippi - see below)

Do not plant soybeans deeper than 2 inches.

**SOYBEANS - Fall application:**

See page 15 on Fall Application.

**SOYBEANS - Fall panicum control:**

For the control of fall panicum in the states of Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia, apply TRIFLURALIN 4EC at the broadcast rate of 2 pints per acre on both coarse and medium soils. Plant soybeans after early season adverse weather conditions have passed. Do not plant soybeans deeper than 2 inches. Crop injury in the form of delayed growth or reduced yields may occur under adverse cool, wet weather conditions when TRIFLURALIN 4EC is used according to these special recommendations.

**SOYBEANS - More Complete Control of Pigweed and Seedling Johnsongrass in Soybeans Grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Southeastern Missouri, North Carolina, South Carolina, Tennessee and Southern Virginia:**

For more complete control of pigweed and seedling Johnsongrass, TRIFLURALIN 4EC may be applied at a broadcast rate per acre of from 1 to 1 1/2 pints on coarse soils, from 1 1/2 to 2 pints on medium soils and 2 pints on fine soils except in the state of Louisiana where 3 pints per acre are recommended on fine soils.

**Precaution:** Plant soybeans after early season adverse weather conditions have passed. Do not plant soybeans deeper than 2 inches. Crop injury in the form of delayed growth may occur under adverse cool, wet weather conditions early in the season when TRIFLURALIN 4EC is used according to these recommendations.

**SOYBEANS - More Complete Weed and Grass Control in Certain Counties Along the Texas Gulf Coast:**

For more complete control of those weeds and grasses listed in the TRIFLURALIN 4EC label in the Texas Gulf Coast Counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, TRIFLURALIN 4EC may be applied up to 2 weeks before planting at a broadcast rate of 1 1/2 pints on coarse soils, 2 pints on medium soils and 3 pints on fine soils.

See precaution in preceding paragraph.

**SOYBEANS - Soils Containing Charcoal in Arkansas, Louisiana and Mississippi:**

Newly cleared land often contains high organic matter (4 to 10%) and charcoal which result from burning debris. This charcoal and/or organic matter tends to tie up TRIFLURALIN 4EC and reduce its weed control activity. Higher rates of TRIFLURALIN 4EC are therefore necessary for satisfactory weed control. Increased rates can cause crop injury if charcoal or a high percentage of organic matter is not present to tie up some of the TRIFLURALIN 4EC in the actual windrow or burn row, where a high level of charcoal is present, poor weed control may result even with an increased rate of TRIFLURALIN 4EC.

Apply and incorporate TRIFLURALIN 4EC at the following broadcast rates per acre:

Coarse soils	1 1/2 pints
Medium soils	2 1/4 pints
Fine soils	3 pints

**SOYBEANS - Rhizome Johnsongrass Control:**

See pages 15, 16 on Rhizome Johnsongrass control

**SOYBEANS - Wild Cane Control:**

Wild Cane (Shattercane) can germinate from greater soil depth than most other weed seeds. Several "flushes" or germinating times are common in one season. Commercially acceptable control of wild cane can be obtained with increased rates of TRIFLURALIN 4EC.

**Land Preparation** - Work your land to destroy existing grasses and weeds. Thoroughly mix crop residues into the soil to a depth of 4 to 6 inches.

**Application** - Apply TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils, 2 pints on medium soils and 2 1/2 pints on fine soils.

**Incorporation** - Deep incorporation is essential to good wild cane control. Incorporate (mix) TRIFLURALIN 4EC thoroughly with a disc only set to cut 4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph.

**Cultivation** - Cultivations during the crop season will also contribute to control.

**Precaution:** Plant soybeans after early season adverse weather conditions have passed. Do not plant soybeans deeper than 2 inches. Crop injury in the form of delayed growth may occur under adverse cool, wet weather conditions early in the season when TRIFLURALIN 4EC is used according to these recommendations.

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**SOYBEANS — TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone Tank Mix:**

The TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix effectively controls, in addition to the annual grasses and broadleaf weeds controlled by TRIFLURALIN 4EC (See pages 2, 3), the broadleaf weeds listed on page 2. Follow normal TRIFLURALIN 4EC procedures for soil preparation. The TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix should be applied from 2 weeks before planting up to planting in 10 to 40 gallons of water with any low-pressure herbicide sprayer equipped with herbicide tips and screens no finer than 50 mesh in nozzle and in-line strainers.

	<u>TRIFLURALIN 4EC</u>	<u>Lexone 50 W.P. or Sencor 50 W.P.</u>
Coarse soils*	1 pint	1/2 pound
Medium soils	1 1/2 pints	3/4 pound
Fine soils**	2 pints	1 pound

  

	<u>TRIFLURALIN 4EC</u>	<u>Lexone 4L or Sencor 4</u>
Coarse soils*	1 pint	1/2 pint
Medium soils	1 1/2 pints	3/4 pint
Fine soils**	2 pints	1 pint

\* Do not use on coarse soils with less than 1% organic matter.

\*\* Silty clay loam and sandy clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

Do not plant any crop other than soybeans within 4 months after treatment. Follow normal TRIFLURALIN 4EC procedures for incorporation and cultivation.

NOTE: In those areas of the Mid-South where cocklebur is a serious problem, an overlay of Sencor or Lexone may be preferred to the TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix.

**Special Precaution:** Applied according to directions and under normal growing conditions, the TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix will not harm the treated crop. Overapplication may result in crop injury or soil residue. Uneven application or improper soil incorporation of the TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix can result in erratic weed control or crop injury. Seeding disease, cold weather, deep planting, excessive moisture, soil pH over 7.5, high salt concentration, or drought may weaken crop seedlings and increase possibility of damage from the TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix. Under these conditions, delayed crop development or reduced yields may result. Caution. Observe all cautions and limitations on labeling of all products used in mixtures. Sencor may be harmful if swallowed or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing of dust or spray mist. Do not contaminate feed or food. Keep out of reach of children.

Do not use the foliage from soybeans treated with the TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone tank mix for feed or forage. Do not contaminate any body of water nor apply to any area not specified on this label. Do not allow sprays to drift onto adjacent desirable plants. Dispose of the Sencor or Lexone container according to directions on its label.

**— SOYBEANS — TRIFLURALIN 4EC pre-plant followed by Sencor or Lexone as an overlay treatment for weed control in soybeans:**

TRIFLURALIN 4EC effectively controls certain annual grasses and broadleaf weeds (See pages 2, 3). See Sencor or Lexone label for additional weeds controlled. Apply TRIFLURALIN 4EC as a preplant incorporated herbicide according to the directions on page 3. As a separate operation, make a single application of Sencor or Lexone as either a band or broadcast spray during planting or as a separate operation after planting, but before the soybeans emerge. Do not spray Sencor or Lexone over the top of emerged soybeans or injury may result.

**Use directions** — Follow directions on the TRIFLURALIN 4EC, Sencor or Lexone labels for specific instructions regarding each chemical.

**Special Precautions:** Do not use Lexone or Sencor on Tracy, Semmes, Altona, Vansoy or Coker 102 soybeans as these varieties are sensitive to Lexone or Sencor and injury to the crop may result.

Do not use treated vines for feed or forage.

Seed must be planted at least 1 1/2 inches below the soil surface but not more than 2 inches before a Sencor or Lexone application.

Do not apply Sencor or Lexone more than once per season.

Do not replant areas treated with Sencor or Lexone to any crop other than soybeans within 4 months after treatment.

Injury to soybeans may occur if Lexone or Sencor is used on soils having a calcareous surface or pH of 7.5 or higher, or if used in conjunction with soil applied organic phosphate pesticides.

**Caution:** Read the TRIFLURALIN 4EC, Sencor or Lexone labels carefully before using. Note all cautions, precautions and special precautions.

Broadcast Application Rates		SENCOR 50 W.P. Post-Plant/Preemergence			LEXONE 50 W.P. Post-Plant/Preemergence	
Soil Texture*	TRIFLURALIN 4EC	Less Than 2% Organic Matter	2 to 4% Organic Matter	Over 4% Organic Matter	1/2 to 2% Organic Matter	More than 2% Organic Matter
Coarse**	1 pt.	DO NOT USE	3/4 lb.	1 lb.	DO NOT USE	3/4 lb.
Medium	1 1/2 pts.	3/4 to 1 lb.	1 to 1 1/4 lbs.	1 1/4 to 1 1/2 lbs.	3/4 lb.	1 lb.
Fine	2 pts.	1 to 1 1/4 lbs.	1 1/4 to 1 1/2 lbs.	1 1/2 to 1 3/4 lbs.	1 lb.	1 lb.
Mississippi Delta	Rate according to soil texture	1 1/2 lbs.	1 3/4 lbs.	2 lbs.	1 1/2 lbs.	1 1/2 lbs.

\* Do not use Lexone on sand nor on soils with less than 1/4% organic matter as crop injury may result.

\*\* Do not apply Sencor to sandy soils or to coarse soils (sandy loam, loamy sand) containing less than 2% organic matter.

#### SOYBEANS — TRIFLURALIN 4EC/Amiben™ :

Amiben may be applied in a band over the soybean row at planting time in fields where TRIFLURALIN 4EC has been applied as a preplant soil incorporated herbicide. (See pages 2, 3 for weeds controlled by this treatment.) Or Amiben may be applied several days prior to planting as a broadcast tank mix with TRIFLURALIN 4EC. The tank mixture should be used as a spring preplant soil incorporated treatment. The tank mix improves broadleaf weed control of species such as smartweed, velvetleaf, and ragweed. For broadcast treatments, incorporate chemicals immediately and thoroughly to an approximate depth of 2 inches with a disc, field cultivator or similar tool set to cut a depth of 4 to 6 inches. Apply Amiben at a rate of 1 gallon (2 1/2 pounds acid equivalent) per broadcast acre. Apply TRIFLURALIN 4EC at a rate of 1 1/2 pints for medium soils and 2 pints for fine soils. Do not use on muck or charcoal soils. Read and observe all directions and cautions on the Amiben label.

#### BEANS — Castor Beans:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5 1/2 to 10% organic matter.

#### BEANS — Dry Beans (Kidney, Navy, Pinto, etc.):

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5 1/2 to 10% organic matter.

#### BEANS — TRIFLURALIN 4EC/Eptam Tank Mix for Dry Beans:

The TRIFLURALIN 4EC/Eptam tank mix effectively controls henbit, black nightshade and nutsedge (nutgrass) in addition to all of the annual grasses and broadleaf weeds listed on the TRIFLURALIN 4EC label (See pages 2, 3). Follow normal TRIFLURALIN 4EC procedures for soil preparation. The TRIFLURALIN 4EC/Eptam tank mix should be applied from 2 days before planting up to planting. Apply at a broadcast rate of 1 pint of TRIFLURALIN 4EC and 1 3/4 pints of Eptam 7E per acre or up to the label recommended rate for each herbicide depending on soil texture and weed problem. TRIFLURALIN 4EC at 1 pint per acre, alone or in combination, should not be used on soils containing 5% or more organic matter. Incorporate immediately after application. Follow normal TRIFLURALIN 4EC procedures for cultivation.

Caution. Read the Eptam label before using. Observe all cautions and limitations on labeling of all products used in mixtures. The combination of TRIFLURALIN 4EC and Eptam should not be used on soybeans, black-eyed peas (beans), lima beans and other flatpodded beans, except Romano. Do not use the foliage from a crop treated with the TRIFLURALIN 4EC/Eptam tank mix for feed or for grazing.

#### BEANS — Guar Beans and Mungbeans:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils and 1 1/2 pints on medium and fine soils.

#### BEANS — Lima Beans and Snap Beans:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

#### CARROTS:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5 1/2 to 10% organic matter.

#### COLE CROPS — Broccoli, Brussels Sprouts, Cabbage and Cauliflower:

For Direct-Seeded cole crops apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils and coarse soils with 2 to 5% organic matter. Direct-Seeded cole crops have exhibited marginal tolerance to recommended rates of TRIFLURALIN 4EC. Stunting or reduced stands may occur. For Transplant cole crops apply and incorporate TRIFLURALIN 4EC before transplanting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5 1/2 to 10% organic matter. Do not apply TRIFLURALIN 4EC after transplanting.

#### CUCURBITS — Cantaloupes, Cucumbers and Watermelons — Post-Plant, emerged in Texas only:

Apply TRIFLURALIN 4EC at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils.

1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter and 2 pints on soils with 5.1 to 10% organic matter. Apply TRIFLURALIN 4EC as a direct-spray to the soil between the rows and beneath plants which are in the 3 to 4 true-leaf stage. Set incorporation machinery to throw treated soil toward plants in the row. Care should be taken that incorporation machinery does not damage the plants.

**GREENS** — Turnip Greens Grown for Processing and All Collard, Kale and Mustard Greens:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**MUSTARD** — Grown For Seed in Minnesota and North Dakota Only:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**OKRA:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter, and 2 pints on soils with 5.1 to 10% organic matter.

**PEANUTS** — Spanish Peanuts Grown in Texas and Oklahoma Only:

Apply and incorporate TRIFLURALIN 4EC before planting, at planting or immediately after planting at a broadcast rate per acre of 1 pint on coarse soils. When incorporating after planting, care must be taken not to disturb the seed.

**PEAS** — English:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**PEAS** — Southern:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter, and 2 pints on soils with 5.1 to 10% organic matter.

**PEPPERS** — Transplants only:

Apply and incorporate TRIFLURALIN 4EC before transplanting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Do not apply TRIFLURALIN 4EC after transplanting.

**POTATOES** — Not recommended for use in the state of Maine:

Apply TRIFLURALIN 4EC after planting, up to or immediately following dragoff at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 pints on coarse soils with 2 to 5% organic matter, and 2 pints on soils with 5.1 to 10% organic matter. TRIFLURALIN 4EC is not recommended on muck soils.

Set incorporation equipment so that the bed and furrow will be uniformly covered with a layer of TRIFLURALIN 4EC. If the layer of TRIFLURALIN 4EC treated soil is not uniform and the herbicide is concentrated over the bed, potato emergence may be retarded and stem brittleness can occur. Care should be taken so that incorporation machinery does not damage potato seed pieces or elongating sprouts. Cultivation prior to emergence may result in mechanical injury to the elongated potato sprouts.

**POTATOES** — TRIFLURALIN 4EC/Eptam Tank Mix for Potatoes Grown in Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, South Dakota and Texas only:

The TRIFLURALIN 4EC/Eptam tank mix effectively controls henbit, black nightshade and nutsedge (nutgrass) in addition to all of the annual grasses and broadleaf weeds listed on the TRIFLURALIN 4EC label (See pages 2, 3). Follow normal TRIFLURALIN 4EC procedures for soil preparation. The TRIFLURALIN 4EC/Eptam tank mix may be applied after planting but prior to crop emergence. In areas where potatoes are normally dragged-off, the TRIFLURALIN 4EC/Eptam tank mix should be applied and incorporated up to or immediately following dragoff at a broadcast rate per acre of 1 pint of TRIFLURALIN 4EC and 1 3/4 pints of Eptam 7E on all soil textures or up to the label recommended rate for each herbicide depending on soil texture and weed problem. TRIFLURALIN 4EC at 1 pint per acre, alone or in combination, should not be used on soils containing 5% or more organic matter. Incorporate immediately after application. Follow normal TRIFLURALIN 4EC procedures for cultivation.

Caution: Read the Eptam label before using. Observe all cautions and limitations on labeling of all products used in mixtures. Do not graze or feed forage to livestock from fields treated with the TRIFLURALIN 4EC/Eptam tank mix.

## **RAPESEED (CANOLA):**

Apply and incorporate Trifluralin 4EC in the spring before planting (anytime after January 1 when soil can be worked and is in a condition which allows thorough mixing to insure uniform incorporation) or in the fall. Broadcast rates per acre are: 1 pint on coarse soils; 1 1/2 pints on medium soils; and 2 pints on fine soils. See instructions for "Incorporation Before Planting" on page 3 and instructions for "Fall Application" on page 15. Do not apply Trifluralin 4EC to rapeseed (canola) grown in the state of Alaska.

**SAFFLOWER:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils, 1 1/2 pints on medium soils, 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**SUGAR BEETS:**

Apply TRIFLURALIN 4EC as a broadcast, overtop spray when plants are between 2 and 6 inches tall at a rate per acre of 1 pint on coarse soils and 1 1/2 pints on medium and fine soils. Exposed beet roots should be covered with soil before a TRIFLURALIN 4EC application to reduce the possibility of gridding. Set incorporation machinery to throw treated soil toward the plants in the row. Care should be taken that incorporation machinery does not damage the sugar beet taproot.

**SUGARCANE** — Plant Cane Only:

Apply and incorporate TRIFLURALIN 4EC twice a year at a broadcast rate per acre of 2 to 4 pints for all soil textures. Make the TRIFLURALIN 4EC application in the fall on firmly packed beds immediately after the seed pieces are planted. Make the TRIFLURALIN 4EC application in the spring before or shortly after the cane emerges. Loosen rain-packed beds 2 to 3 inches deep before the spring application. Care should be taken so that incorporation machinery does not damage the seed pieces or emerging shoots.

**SUGARCANE** — Applications up to Layby for Plant Cane or Ratoon Cane Grown in Louisiana or Texas only:

Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 2 to 4 pints for all soil textures. Make the TRIFLURALIN 4EC application in the spring from before or shortly after the cane emerges up to layby. Make the TRIFLURALIN 4EC application after the beds have been shaved or false shaved. Loosen rain-packed beds 2 to 3 inches deep before application.

Care should be taken so that incorporation machinery does not damage seed pieces or emerging shoots. A rolling cultivator or bed chopper may be used to incorporate TRIFLURALIN 4EC layby applications in sugarcane on all soil textures. Follow normal incorporation directions for the rolling cultivator. Set bed chopper to cut 3 to 4 inches deep and operate 2 times at 4 to 6 mph.

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**SUGARCANE — Resougrass Control in Louisiana only:**

Apply and incorporate TRIFLURALIN 4EC on either plant or ratoon cane at a broadcast rate per acre of 4 pints for all soil textures. Make the TRIFLURALIN 4EC application in the spring from before or shortly after the cane emerges up to layby. Make the TRIFLURALIN 4EC application after the beds have been shaved or false shaved. Loosen rain-packed beds 2 to 3 inches deep before application. Care should be taken so that incorporation machinery does not damage seed pieces or emerging shoots. A rolling cultivator or bed chopper may be used to incorporate TRIFLURALIN 4EC layby applications in sugarcane on all soil textures. Follow normal incorporation directions for the rolling cultivator. Set bed chopper to cut 3 to 4 inches deep and operate 2 times at 4 to 6 mph.

**SUNFLOWER:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 to 2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**TOMATOES:**

For Direct-Seeded tomatoes apply TRIFLURALIN 4EC at blocking or thinning at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Apply TRIFLURALIN 4EC as a directed spray to the soil between the rows and beneath the plants and incorporate. For Transplant tomatoes apply and incorporate TRIFLURALIN 4EC before transplanting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 pints on coarse soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Do not apply TRIFLURALIN 4EC after transplanting.

**TREES AND VINEYARDS:**

For New Plantings of Vineyards, Citrus and Pecan Trees apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/2 pints on medium soils; 2 pints on fine soils; 1 1/2 pints on fine soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

For Non-Bearing Established Plantings of Citrus and Pecan Trees and Bearing Plantings of Grapefruit, Lemon, Orange, Pecan, Tangelo, Tangerine Trees apply TRIFLURALIN 4EC at a broadcast rate per acre of 2 to 4 pints for all soil textures. In these established plantings, apply TRIFLURALIN 4EC as a directed spray to the soil around the trees and use incorporation methods not injurious to the trees.

Note: If crops are planted between the trees, label directions for those specific crops apply to the area which is interplanted. For continued weed control in citrus trees, apply TRIFLURALIN 4EC 2 times a year at an interval of approximately 4 to 6 months.

**CROP RECOMMENDATIONS**

*Western United States*

**GENERAL**

These recommendations are given as the broadcast (overall) rates of TRIFLURALIN 4EC per acre. For band application, use proportionately less. TRIFLURALIN 4EC is not recommended for peat soils exceeding 20% organic matter or on any muck soils. Do not exceed recommended rates at any time. Where a rate range is shown, use the lighter rate for more coarse soils or soils with lower organic matter.

**COTTON — Preemergence applications:**

Apply and incorporate TRIFLURALIN 4EC before planting, at planting or immediately after planting using the following broadcast rates per acre:

Coarse soils	1 pint
Medium soils	1 1/4 to 1 1/2 pints
Fine soils	1 1/2 pints
Soils with 2 to 5% organic matter	1 1/2 to 2 pints
Soils with 5.1 to 10% organic matter	2 pints

When incorporating after planting (post-plant), care must be taken not to disturb the seed.

Seedling disease may weaken cotton plants and increase the possibility of damage from TRIFLURALIN 4EC. To control seedling disease, use a good fungicide program.

**COTTON — Post-emergence applications:**

Apply TRIFLURALIN 4EC anytime up to layby, but not less than 90 days before harvest. Direct layby applications to the soil between the rows and beneath emerged cotton plants. Use the same rates as for a preemergence application.

**COTTON — Fall Application:**

See page 15 on Fall Application.

**COTTON — Rhizome Johnsongrass Control:**

See page 16 for Rhizome Johnsongrass control.

**COTTON — TRIFLURALIN 4EC/Caparol tank mix for cotton grown in California, Arizona, New Mexico, and Texas:**

The TRIFLURALIN 4EC/Caparol combination will control certain grasses and broadleaf weeds listed on the TRIFLURALIN 4EC label (See pages 2, 3) plus those listed on page 2 for TRIFLURALIN 4EC/Caparol. This combination will also control shallow-germinating seedlings of cocklebur and coffee-weed.

NOTE: This combination will not control sunflower, rhizome Johnsongrass, deep-germinating seedlings of cocklebur and sandbur or established perennials such as Bermudagrass. Follow normal TRIFLURALIN 4EC procedures for soil preparation and incorporation. Apply the tank mix combination to the flat soil surface before disking.

**Broadcast Rates Per Acre:**

	TRIFLURALIN 4EC	Caparol 80W
Coarse soil	1 pint	2 pounds
Medium soils	1 1/2 pints	2 1/2 pounds
Fine soils	2 pints	2 1/2 pounds

Do not use on sands and loamy sands. For band applications use proportionately less. TRIFLURALIN 4EC is not recommended for use on muck soils.

**Mixing Directions:** Carefully follow the procedures on the Caparol 80W label for making a slurry and adding it to a partially filled tank of water. After the Caparol is thoroughly mixed with the partially filled tank of water, add the TRIFLURALIN 4EC and continue filling. Agitate during the filling.

and spraying operation.

Avoid leaving the spray mixture in the tank without constant agitation. If by-pass agitation is used, it should terminate at the bottom of the tank to minimize foaming.

**Incorporation Directions:** The first incorporation of TRIFLURALIN 4EC/Caparol should be immediately following application. A second incorporation is required with most equipment. (See incorporation equipment on pages 3, 4 for further instructions.)

**Precautions:** Do not apply more than the recommended rate for your soil texture.

The combination of TRIFLURALIN 4EC/Caparol should not be used under the following conditions because crop injury may result in the cut areas of newly leveled fields, in areas of excess salt, and where flooding over the beds is likely to happen.

Do not plant cotton in tractor wheel depressions or crop injury may result.

On mulch-planted cotton, water back only after cotton seedlings get well established.

**Crop Rotations:** Cabbage, okra, onions and peas may be planted in the fall after a spring application of TRIFLURALIN 4EC plus Caparol.

Winter barley, winter rye and winter wheat can be planted in the fall also, if they are plowed down and not used for food or feed. Refer to the Caparol label for directions, cautions and precautions.

**COTTON — TRIFLURALIN 4EC/Cotoran tank mix:**

See pages 5, 6.

**ALFALFA — Established Alfalfa Only:**

Apply TRIFLURALIN 4EC to established alfalfa stands at a broadcast rate per acre of 1 1/2 pints on coarse soils and 2 pints on medium and fine soils. Use incorporation equipment that will insure thorough soil mixing with a minimum of damage to the established alfalfa.

**BEANS — Castor Beans:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**BEANS — Dry Beans (Kidney, Navy, Pinto, etc.):**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**BEANS — TRIFLURALIN 4EC/Eptam Tank Mix for Dry Beans:**

The TRIFLURALIN 4EC/Eptam tank mix effectively controls henbit, nightshade and nutsedge (nutgrass) in addition to all of the annual grasses and broadleaf weeds listed on the TRIFLURALIN 4EC label (See pages 2, 3). Follow normal TRIFLURALIN 4EC procedures for soil preparation. The TRIFLURALIN 4EC/Eptam tank mix may be applied up to 2 days before planting. Apply at a broadcast rate of 1 pint of TRIFLURALIN 4EC and 1 3/4 pints of Eptam 7E per acre or up to the label recommended rate for each herbicide depending on soil texture and weed problem. TRIFLURALIN 4EC at 1 pint per acre, alone or in combination, should not be used on soils containing 5% or more organic matter. Incorporate immediately after application. Follow normal TRIFLURALIN 4EC procedures for cultivation.

**Caution:** Read the Eptam label before using. Observe all cautions and limitations on labeling of all products used in mixtures. The combination of TRIFLURALIN 4EC and Eptam should not be used on soybeans, black-eyed peas (beans), lima beans and other flatpodded beans, except Romano. Do not use the foliage from a crop treated with the TRIFLURALIN 4EC/Eptam tank mix for feed or for grazing.

**BEANS — Fall Application in Dry Beans Grown in Idaho, Oregon and Washington Only:**

See page 15 on Fall Application.

**BEANS — Guar Beans and Mungbeans:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils and 1 1/2 pints on medium and fine soils.

**BEANS — Lima Beans and Snap Beans:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**BEANS — Soybeans:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**BEANS — Fall Application on Soybeans:**

See page 15 on Fall Application.

**BEANS — Rhizome Johnsongrass Control in Soybeans:**

See page 15, 16.

**BEANS — TRIFLURALIN 4EC/Amiben Tank Mix for Soybeans:**

See page 8.

**BEANS — TRIFLURALIN 4EC/Sencor or TRIFLURALIN 4EC/Lexone Tank Mix for Soybeans:**

See page 7.

**BEANS — TRIFLURALIN 4EC pre-plant followed by Sencor or Lexone as an overlay treatment of weed control in soybeans:**

See page 7.

**CARROTS:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate of 1 pint on coarse soils, 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils, 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**CELERY — Both Direct-Seeded and Transplant:**

Apply and incorporate TRIFLURALIN 4EC before planting or transplanting at a broadcast rate per acre of 1 pint on coarse soils, 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils, 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**COLE CROPS — Broccoli, Brussels Sprouts, Cabbage and Cauliflower:**

For Direct-Seeded cole crops apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse, medium and fine soils and 1 1/2 pints on soils with 2 to 10% organic matter. For Transplant cole crops apply and incorporate TRIFLURALIN 4EC before transplanting at a broadcast rate per acre of 1 pint on coarse soils, 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter, and 2 pints on soils with 5.1 to 10% organic matter. Do not apply TRIFLURALIN 4EC after transplanting.

**CUCURBITS — Cantaloupes, Cucumbers and Watermelons — Post-plant, emerged only:**

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Apply TRIFLURALIN 4EC at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter and 2 pints on soils with 5.1 to 10% organic matter. Apply TRIFLURALIN 4EC as a directed spray to the soil between the rows and beneath plants which are in the 3 to 4 true-leaf stage. Set incorporation machinery to throw treated soil toward plants in the row. Care should be taken that incorporation machinery does not damage the plants.

**GREENS** — Turnip Greens Grown for Processing and All Collard, Kale and Mustard Greens:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**HOPS:**

Apply and incorporate TRIFLURALIN 4EC while the crop is dormant at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils and 1 1/2 pints on fine soils and soils with 2 to 10% organic matter.

**MINT** — Established Peppermint and Spearmint:

Apply TRIFLURALIN 4EC at a rate per acre of 1 pint on coarse soils; 1 1/4 pints on medium soils; and 1 1/2 pints on fine soils. Use incorporation equipment that will insure thorough soil mixing with a minimum of damage to the established, dormant mint.

**MUSTARD** — Grown For Seed in Montana and North Dakota Only:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**OKRA:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**PEANUTS** — Spanish Peanuts Grown in Texas and Oklahoma Only:

Apply and incorporate TRIFLURALIN 4EC before planting, at planting or immediately after planting at a broadcast rate per acre of 1 pint on coarse soils. When incorporating after planting, care must be taken not to disturb the seed.

**PEAS** — Dry Peas and English Peas:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse and medium soils and 1 1/2 pints on fine soils.

**PEAS** — Fall Application in Dry Peas and English Peas Grown in Idaho, Oregon and Washington Only:

See page 15 on Fall Application.

**PEAS** — Southern Peas:

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

**PEAS** — TRIFLURALIN 4EC and Avadex BW tank mix for weed control in peas grown in Idaho, Oregon, and Washington:

The tank mix combination of TRIFLURALIN 4EC plus Avadex BW will provide control of wild oats in addition to other annual grasses and broadleaf weeds controlled by TRIFLURALIN 4EC (See pages 2, 3).

**Application Rates:** Broadcast 3/4 pint of TRIFLURALIN 4EC on coarser textured soils, 1 pint of TRIFLURALIN 4EC on fine soils. Use 1 1/4 quarts of Avadex BW for all soil textures.

**Incorporation Directions:** Apply the TRIFLURALIN 4EC plus Avadex BW tank mix and incorporate from 3 weeks before seeding up to immediately before seeding. TRIFLURALIN 4EC and Avadex BW must be thoroughly incorporated into the top 2 inches of the soil by 2 incorporations. The first incorporation should be made as soon as possible on the day of application. The second incorporation should be made as soon as possible but before seeding. Incorporate with a disc-type implement set to cut 4 inches deep and operate in 2 different directions at 4 to 6 mph or with a field cultivator set to cut 3 to 4 inches deep and operate at 5 mph or more. Shallow incorporation with implements set to cut less than 2 inches may result in erratic weed control.

**NOTE:** Do not apply to lentils.

Leaf crinkling and delayed maturity of peas may occur, particularly on clay points in the Northwest; but this is usually more than offset by a reduction of wild oats. Do not graze livestock on treated crops. Refer to the cautions, precautions and directions on the Avadex BW label.

**PEPPERS** — Transplants Only:

Apply and incorporate TRIFLURALIN 4EC before transplanting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Do not apply TRIFLURALIN 4EC after transplanting.

**POTATOES:**

Apply and incorporate TRIFLURALIN 4EC after planting, before emergence on all soil textures or after the potato plants have fully emerged on coarse and medium soils at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Set incorporation equipment so that the bed and furrow will be uniformly covered with a layer of TRIFLURALIN 4EC. If the layer of TRIFLURALIN 4EC 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 TRIFLURALIN 4EC after potato plants have fully emerged, do not completely cover the foliage with treated soil. Likewise do not completely cover foliage at subsequent cultivations. Care should be taken so that incorporation machinery does not damage potato seed pieces or elongating sprouts.

**POTATOES** — Split Application in Idaho, Oregon and Washington Only:

On all soils apply and incorporate 3/4 pint of TRIFLURALIN 4EC before planting and 3/4 pint after planting when potato plants have fully emerged. Do not apply to soils containing 2% or more organic matter. Follow incorporation directions listed above for application to potatoes after planting.

**POTATOES** — TRIFLURALIN 4EC/Eptam Tank Mix:

**Application After Planting** — The TRIFLURALIN 4EC/Eptam tank mix effectively controls henbit, nightshade and nutsedge (nutgrass) in addition to all of the annual grasses and broadleaf weeds listed on the TRIFLURALIN 4EC label (See pages 2, 3). Follow normal TRIFLURALIN 4EC procedures for soil preparation. The TRIFLURALIN 4EC/Eptam tank mix may be applied after planting, up to or immediately following dragoff at a broadcast rate per acre of 1 pint of TRIFLURALIN 4EC and 1 3/4 pints of Eptam 7E on all soil textures or up to the label recommended rate for each herbicide depending on soil texture and weed problem. TRIFLURALIN 4EC at 1 pint per acre, alone or in combination, should not be used on soils containing 5% or more organic matter. Incorporate immediately after application. Follow normal TRIFLURALIN 4EC procedures for cultivation.

**Application Before Planting in Washington, Idaho and Oregon Only** — TRIFLURALIN 4EC/Eptam may also be applied before planting at a broadcast rate of 3/4 pint of TRIFLURALIN 4EC and 3 1/2 pints of Eptam 7E on all soil textures and incorporated immediately.



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Caution: Do not use this tank mix both before and after planting in the same season. Read the Eptam label before using. Observe all cautions and limitations on labeling of all products used in mixtures. Do not graze or feed forage to livestock from fields treated with the TRIFLURALIN 4EC/Eptam tank mix.

### **RAPESEED (CANOLA):**

See Page 9.

### **SAFFLOWER:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; 2 pints on soils with 5.1 to 10% organic matter; and 2 to 3 pints on soils with 10.1 to 20% organic matter.

### **SAFFLOWER - Fall Application:**

See page 15 on Fall Application.

### **SUGAR BEETS:**

Apply TRIFLURALIN 4EC as a broadcast, overlap spray when plants are between 2 and 6 inches tall at a rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; and 1 1/2 pints on fine soils. Exposed beet roots should be covered with soil before a TRIFLURALIN 4EC application to reduce the possibility of girdling. Set incorporation machinery to throw treated soil toward the plants in the row. Care should be taken that incorporation machinery does not damage the sugar beet taproot.

**SUGAR BEETS - Incorporation with a Tine-Tooth Harrow in the States of California, Colorado, Idaho, Kansas, Montana, Nebraska, Oregon, Texas, Utah, Washington and Wyoming Only:**

A properly operated tine-tooth harrow (Flexline or Melroe) can provide adequate incorporation of TRIFLURALIN 4EC for effective weed control in sugar beets. Operate the tine-tooth harrow 2 times over the field in opposite directions at a speed of 3 to 6 mph and set the harrow to cut 1 to 2 inches deep. Care should be taken to insure that the tine-tooth harrow does not damage the sugar beet taproot.

### **SUGARCANE - Post-Plant in Hawaii Only for control of most annual grasses, including guineagrass:**

Surface apply TRIFLURALIN 4EC after planting (for plant cane) or after harvesting (for ratoon cane), before weeds and cane emerge at a broadcast rate per acre of 6 to 8 pints for all soil textures. In plant cane, the beds should be formed or rolled before application. In ratoon cane, the crop residue should be removed before application. If large amounts of crop residues are present, TRIFLURALIN 4EC will not be effective. Apply just before anticipated rainfall or sprinkle irrigate immediately after application.

### **SUNFLOWER:**

Apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

### **TOMATOES:**

For Direct-Seeded tomatoes apply TRIFLURALIN 4EC at blocking or thinning at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Apply TRIFLURALIN 4EC as a directed spray to the soil between the rows and beneath the plants and incorporate. For Transplant tomatoes apply and incorporate TRIFLURALIN 4EC before transplanting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter. Do not apply TRIFLURALIN 4EC after transplanting.

### **TREES AND VINEYARDS:**

For New Plantings of Almond, Apricot, Citrus, Nectarine, Peach, Pecan and Walnut trees apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 pint on coarse soils; 1 1/4 to 1 1/2 pints on medium soils; 1 1/2 pints on fine soils; 1 1/2 to 2 pints on soils with 2 to 5% organic matter; and 2 pints on soils with 5.1 to 10% organic matter.

For New Plantings of Vineyards apply and incorporate TRIFLURALIN 4EC before planting at a broadcast rate per acre of 1 to 1 1/2 pints on coarse soils; 1 1/2 to 3 pints on medium soils and 3 to 4 pints on fine soils or soils with 2 to 10% organic matter. Do not use more than 2 pints per acre on heat-treated vines.

For Post-Plant Applications on Bearing or Non-Bearing Established Plantings of Vineyards, Almond, Apricot, Grapefruit, Lemon, Nectarine, Orange, Peach, Pecan, Plum, Prune, Tangelo, Tangerine and Walnut Trees apply TRIFLURALIN 4EC at a broadcast rate per acre of 2 to 4 pints for all soil textures. In these established plantings, apply TRIFLURALIN 4EC as a directed spray to the soil around the trees or vines and use incorporation methods not injurious to the trees or vines. Do not apply to vineyards within 60 days of harvest.

**NOTE:** If crops are planted between the trees or vines, label directions for those specific crops apply to the area which is interplanted. For continued weed control in citrus trees, apply TRIFLURALIN 4EC 2 times a year at an interval of approximately 4 to 6 months.

### **TREES AND VINEYARDS - Rhizome Johnsongrass Control:**

See page 16 on Rhizome Johnsongrass control.

**TREES AND VINEYARDS - Field Bindweed Control in Vineyards, Almond, Apricot, Grapefruit, Lemon, Nectarine, Orange, Peach, Pecan, Tangelo, Tangerine and Walnut Trees in California only:**

For the control of field bindweed in the state of California, apply TRIFLURALIN 4EC at a broadcast rate of 4 pints per acre on all soil textures. TRIFLURALIN 4EC must be applied in the spring with a specially designed spray blade which applies a thin concentrated layer at a soil depth of 4 to 6 inches. The layer of TRIFLURALIN 4EC prevents bindweed shoots from emerging.

**Land Preparation -** Destroy all weeds and grasses with soil tillage before applying TRIFLURALIN 4EC. This tillage is necessary to prevent trash from interfering with the operation of the spray blade.

**Equipment -** This operation requires a spray blade capable of running 4 to 6 inches below the surface of the soil. The spray blade should be equipped with nozzles located under the blade and directed so that the TRIFLURALIN 4EC spray will be trapped under the soil which is flowing over the blade as it is pulled through the soil. Use a sufficient number of nozzles with spacing to completely and uniformly apply TRIFLURALIN 4EC underground in a thin horizontal layer.

**Application -** Apply TRIFLURALIN 4EC in 40 to 80 gallons of water per acre. Operate the spray blade at a depth of 4 to 6 inches.

**Precaution:** Some soils develop cracks as they dry after rainfall or irrigation. Field bindweed may emerge if the cracks extend through the TRIFLURALIN 4EC layer. Prevent or eliminate cracks by shallow disking or other tillage. Avoid deep tillage which disturbs the subsurface layer. Cultivation or tillage also aids the control of germinating seeds.

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**WHEAT (SPRING), DURUM AND BARLEY TRIFLURALIN 4EC Alone.** This product recommended as a postplant incorporated treatment to control foxtail (pigeongrass).

Apply this product at a broadcast rate of 1 pint per acre on coarse and medium soils and 1 1/2 pints on fine soils.

Plant 2 to 3 inches deep in a well-tilled seedbed. Apply this product after seeding but before the crop emerges. To incorporate, use flex-tine or diamond harrows operated two times in different directions at speeds of at least 5 mph. Incorporate by operating equipment 1 to 1 1/2 inches deep. Application and the first incorporation should be done in the same operation if possible. Both incorporations must be done within 24 hours.

**WHEAT (SPRING), DURUM, BARLEY (FALL APPLICATION) — Foxtail/Pigeongrass control:** This product may be fall applied for foxtail/pigeongrass control in spring wheat, durum and barley planted the following spring. This product may be applied to ground that has a manageable trash level, has been fallowed or pre-tilled. The first incorporation is required within 24 hours after application. A second incorporation is required prior to planting to destroy emerged weeds and to ensure an even distribution of Trifluralin treated soil. Apply anytime between October 1 and December 31.

**Broadcast Rates Per Acre:**

Soil Texture	TRIFLURALIN 4EC
Coarse	1 pint
Medium	1 pint
Fine	1 1/2 pints

**Incorporation Directions —** Any of the following tools are recommended for fall incorporation. The disc or field cultivator may be used for the spring incorporation pass. Care should be taken to operate the tool at a more shallow depth than the fall incorporation.

1. Chisel plow: May be used for the first pass only. Operate at 4-5 inches deep at 4-6 mph. A chisel plow is defined as having 3 rows of up to 18-inch sweeps on no greater than 12-inch centers. Stagger sweeps so that no soil is left unturned.

2. Tandem disc: Operate at 3-4 inches deep at 4-6 mph.

3. Field cultivator: Operate at 3-4 inches deep at 5 mph or more. A field cultivator is defined as having 3 to 4 rows of sweeps with "c" or "s" shaped shanks spaced 7 inches or less and staggered so that no soil is left unturned.

**Planting Directions —** Wheat, durum, or barley should be approximately 2 inches deep.

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

**WHEAT (SPRING), DURUM, AND BARLEY TRIFLURALIN 4EC/FAR-GO tank mix:** TRIFLURALIN 4EC/FAR-GO applied as a postplant incorporated treatment will control foxtail (pigeongrass) and wild oat.

Plant 2 to 3 inches deep in a well-tilled seedbed. Apply TRIFLURALIN 4EC/FAR-GO after seeding but before crop emerges. To incorporate, use flex-tine or diamond harrows two times operated in different directions at speeds of at least 5 mph. Incorporate by operating equipment 1 to 1 1/2 inches deep. Application and the first incorporation should be done in the same operation if possible. If not, incorporate immediately after application.

**Broadcast Rates Per Acre:**

Soil Texture	TRIFLURALIN 4EC	FAR-GO	
	Barley Durum Spring Wheat	Durum Spring Wheat	Barley
Coarse	1 pint	2 1/2 pints	2 pints
Medium	1 pint	2 1/2 pints	2 pints
Fine	1 1/2 pints	2 1/2 pints	2 pints

**Precaution.** Overapplication may result in crop injury. Read the FAR-GO label carefully before using.

**WHEAT (WINTER) TRIFLURALIN 4EC for preplant preemergence control of cheatgrass and other weeds in winter wheat grown in Washington, Oregon, Idaho, and Montana:**

When applied as directed, TRIFLURALIN 4EC will provide effective preemergence control of cheatgrass and a number of other annual grasses and broadleaf weeds controlled by TRIFLURALIN 4EC (See pages 2, 3) in winter wheat grown in Washington, Oregon, Idaho, and Montana. The growth, development and yield of winter wheat will not be adversely affected, provided the seed is placed below the zone of soil treated with TRIFLURALIN 4EC.

**Broadcast Rates Per Acre:**

Apply TRIFLURALIN 4EC anytime during a period from 3 weeks up to immediately prior to planting. Broadcast TRIFLURALIN 4EC at the following rates per acre according to soil texture.

Soil Texture	TRIFLURALIN 4EC
Coarse	1 1/2 pints
Medium	1 1/2 pints
Fine	2 pints

**Incorporation Directions —** Shallow incorporate TRIFLURALIN 4EC into the soil with a flexible tine-tooth harrow (Flexline, Melroe) set to cut 1 to 2 inches deep. Operate the equipment in 2 different directions at a speed of 3 to 6 miles per hour. The first incorporation must be within 24 hours after application. The second incorporation may be done at any time but before planting. Do not till the soil with a disc after the TRIFLURALIN 4EC has been applied and incorporated with a flexible tine harrow.

**Seeding Directions —** Use only a deep furrow or semi-deep furrow drill that will be sure to place the seed below the zone of soil into which TRIFLURALIN 4EC has been incorporated.

Wheat planted in direct contact with TRIFLURALIN 4EC treated soil may suffer crop injury in the form of delay in emergence and development.

**WHEAT (WINTER) Fallow soil application of TRIFLURALIN 4EC for weed control in winter wheat grown in Washington and Oregon:**

Uniformly applied TRIFLURALIN 4EC at the recommended rate and shallowly incorporate into fallow soil as much as four months ahead of planting time, will effectively control cheatgrass and certain annual grasses and broadleaf weeds in winter wheat grown in Washington and Oregon. The growth, development or yield of winter wheat will not be adversely affected, provided the seed is placed below the zone of soil treated with TRIFLURALIN 4EC, with deep or semi-deep furrow drills.

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Broadcast directions and application rates per acre:

Soil Texture	TRIFLURALIN 4EC
Coarse	1 1/2 pints
Medium	1 1/2 pints
Fine	2 pints

Apply TRIFLURALIN 4EC any time from May to September prior to the fall planting of winter wheat.

**Incorporation** — Shallow incorporate TRIFLURALIN 4EC into the soil with a flexible tine-tooth harrow (also called Flexline or Metroe) set to cut 1 to 2 inches deep and operated at 3 to 6 mph. Thorough incorporation requires two passes of the equipment in different directions over the field. The first pass must be made within 24 hours after application of TRIFLURALIN 4EC. The second pass may be delayed for several weeks but should be made before seeding. Do not till the soil with a disc after TRIFLURALIN 4EC has been applied with a flexible tine harrow.

**Precaution:** Use only deep furrow or semi-deep furrow drills. Place seed below the zone of soil into which TRIFLURALIN 4EC has been incorporated. Do not plant wheat directly into the zone of soil treated with TRIFLURALIN 4EC as injury to the crop or a delay in its emergence and development may occur.

#### FALL APPLICATION

##### GENERAL

In the states of North Dakota, South Dakota, and Minnesota, apply and incorporate Trifluralin 4EC any time between September 1 and December 31. In all other states, fall apply Trifluralin 4EC between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bed-

ded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting. Do not fall apply TRIFLURALIN 4EC to soils which are wet or in poor condition. Do not fall apply TRIFLURALIN 4EC to soils which are subject to prolonged periods of flooding or soils where rice has grown the previous year.

##### COTTON:

For cotton grown in Alabama, Arkansas, Northern Florida, Georgia, Louisiana, Mississippi, Southeastern Missouri, Bootheel, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee and Texas: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 2 pints on coarse and medium soils and 2 1/2 pints on fine soils. For cotton grown in Arizona, California and Nevada: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 1 1/2 pints on coarse soils, 2 pints on medium soils and 2 1/2 pints on fine soils. For cotton grown in states other than those listed above: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 1 pint on coarse soils, 1 1/2 pints on medium soils, 2 pints on fine soils, 1 1/2 pints on coarse soils with 2 to 5% organic matter; and 2 to 2 1/2 pints on soils with 5.1 to 10% organic matter.

##### SOYBEANS:

For soybeans grown in Alabama, Arkansas, Northern Florida, Georgia, Louisiana, Mississippi, Southeastern Missouri, Bootheel, North Carolina, Oklahoma, South Carolina, Tennessee and Texas: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 2 pints on coarse and medium soils and 2 1/2 pints on fine soils. For soybeans grown in the Eastern United States other than those states listed above: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 1 pint on coarse soils, 1 1/2 pints on medium soils, 2 pints on fine soils, 1 1/2 pints on coarse soils with 2 to 5% organic matter; and 2 to 2 1/2 pints on soils with 5.1 to 10% organic matter.

##### SAFFLOWER:

For safflower grown in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 1 1/2 pints on coarse soils, 2 pints on medium soils; and 2 1/2 pints on fine soils.

##### DRY BEANS AND PEAS:

For dry beans and peas grown in Idaho, Oregon and Washington: Apply and incorporate TRIFLURALIN 4EC at a broadcast rate per acre of 1 pint on coarse soils, 1 1/4 to 1 1/2 pints on medium soils; and 1 1/2 pints on fine soils.

##### OTHER CROPS — Eastern United States Only:

For all other crops for which TRIFLURALIN 4EC is recommended as a preemergence application, use the rates listed for normal spring applications. Do not fall apply TRIFLURALIN 4EC for sugar beets, potatoes and direct-seeded tomatoes.

#### RHIZOME JOHNSONGRASS CONTROL

SOYBEANS — Eastern United States and the State of Texas:

Commercially acceptable control of rhizome Johnsongrass can be obtained with a double-rate TRIFLURALIN 4EC program when applied for 2 years in a row.

**Soil Preparation** — Proper preparation of the soil before application is very important for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the top of the soil. Then follow with a disc before application to cut the rhizomes into small (2 to 3-inch) pieces. This should also destroy any emerged Johnsongrass.

**Application** — Choose the one application program that best fits your cultural practices.

**Spring Application** — Apply TRIFLURALIN 4EC anytime in the spring before planting for 2 years in a row at a broadcast rate per acre of 2 pints on coarse soils, 3 pints on medium soils, 4 pints on fine soils, 3 pints on coarse soils with 2 to 5% organic matter, and 4 pints on soils with 5.1 to 10% organic matter. OR

**Fall Application** — Apply TRIFLURALIN 4EC between October 15 and December 31 for 2 years in a row at the same rates as a spring application for the control of rhizome Johnsongrass. OR

**Split Application** — Apply as directed under both spring and fall applications for 2 years in a row using the following broadcast rates per acre:

	Spring	and	Fall
Coarse soils	1 pint		1 pint
Medium soils	1 1/2 pints		1 1/2 pints
Fine soils	2 pints		2 pints
Coarse soils with 2 to 5% organic matter	1 1/2 pints		1 1/2 pints
Soils with 5.1 to 10% organic matter	2 pints		2 pints

**Incorporation** — Deep incorporation is essential to good rhizome Johnsongrass control. Incorporate TRIFLURALIN 4EC thoroughly with a disc.

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4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph.

**Cultivation** — Some Johnsongrass plants will escape. Timely cultivations during the crop season are necessary to obtain commercially acceptable control. Commercially acceptable control will not be obtained with only 1 year of double-rate TRIFLURALIN 4EC use.

**Precautions:** Plant soybeans after early season adverse weather conditions have passed. Do not plant soybeans deeper than 2 inches. Crop injury in the form of delayed growth may occur under adverse cool, wet weather conditions early in the season when TRIFLURALIN 4EC is used according to these recommendations.

In the season following either the 1 or 2-year treatments, plant only those crops for which TRIFLURALIN 4EC has been registered as a preplant treatment or injury may result.

#### **COTTON —**

All Cotton Producing States except Arizona and California. Commercially acceptable control of rhizome Johnsongrass can be obtained with a double-rate TRIFLURALIN 4EC program when applied for 2 years in a row.

**Soil Preparation** — Proper preparation of the soil before application is very important for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the top of the soil. Then follow with a disc before application to cut the rhizomes into small (2 to 3-inch) pieces. This should also destroy any emerged Johnsongrass.

**Application** — Choose the one application program that best fits your cultural practices:

**Spring Application** — Apply TRIFLURALIN 4EC anytime in the spring before planting for 2 years in a row at a broadcast rate per acre of 2 pints on coarse soils; 3 pints on medium soils and 4 pints on fine soils. OR

**Fall Application** — Apply TRIFLURALIN 4EC between October 15 and December 31 for 2 years in a row at the same rates as a spring application for the control of rhizome Johnsongrass.

**Incorporation** — Deep incorporation is essential to good rhizome Johnsongrass control. Incorporate TRIFLURALIN 4EC thoroughly with a disc set to cut 4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph.

**Cultivation** — Some Johnsongrass plants will escape. Timely cultivations during the crop season are necessary to obtain commercially acceptable control. Commercially acceptable control will not be obtained with only 1 year of double-rate TRIFLURALIN 4EC use.

**Precautions:** Plant cotton after early season adverse, wet-weather conditions have passed. Crop injury in the form of reduced stands and delayed growth will occur under adverse cool, wet-weather conditions early in the season and may result in delayed maturity and reduced yields when TRIFLURALIN 4EC is used according to these recommendations. High quality seed accompanied by a good fungicide program to control seedling diseases in addition to other recommended cultural and chemical practices should be used to minimize crop injury from TRIFLURALIN 4EC.

In the season following either the 1 or 2-year treatments, plant only those crops for which TRIFLURALIN 4EC has been registered as a preplant treatment or injury may result.

#### **TREES AND VINEYARDS — Western United States only:**

Commercially acceptable control of rhizome Johnsongrass can be obtained with post-plant applications in Bearing and Non-Bearing established plantings of Vineyards, Almond, Apricot, Grapefruit, Lemon, Nectarine, Orange, Peach, Pecan, Tangelo, Tangerines and Walnut trees with a TRIFLURALIN 4EC program when applied for 2 years in a row.

**Soil Preparation** — Work the soil thoroughly to bring the rhizomes nearer the surface.

**Application** — Apply TRIFLURALIN 4EC at a broadcast rate per acre of 4 pints on all soil textures each year for 2 years in a row. Do not apply to vineyards within 60 days of harvest.

**Incorporation** — Incorporate TRIFLURALIN 4EC thoroughly with a disc set to cut 4 to 6 inches deep and operate 2 times at 4 to 6 mph.

**Cultivation** — Some Johnsongrass plants will escape. Timely cultivations are necessary to obtain commercially acceptable control. Commercially acceptable control will not be obtained with only 1 year of TRIFLURALIN 4EC use.

**Precautions:** Do not use the 2-quart rate on new plantings as injury may result. Do not interplant orchards or vineyards with other crops. If TRIFLURALIN 4EC treated vineyards and orchards are diverted to other crop uses, plant only those crops for which TRIFLURALIN 4EC has been registered as a preplant treatment.

### **SOYBEANS, RED RICE CONTROL**

Arkansas, Louisiana, Mississippi and Texas only:

Suppression or partial control of red rice in soybeans can be obtained when TRIFLURALIN 4EC is applied as directed at double the normal rate the first year (not to exceed 4 pints per acre) and at the normal rate the second year. Follow normal TRIFLURALIN 4EC directions for soil preparation and soil incorporation.

#### **APPLICATION: Year 1**

Apply and incorporate TRIFLURALIN 4EC the first year anytime in the spring before planting at the following broadcast rates per acre:

Coarse soils	2 pints
Medium soils	3 pints
Fine soils	4 pints
Coarse soils with 2 to 5% organic matter	3 pints
Soils with 5.1 to 10% organic matter	4 pints

#### **APPLICATION: Year 2**

Apply TRIFLURALIN 4EC the second year at the following normal label broadcast rates per acre:

Coarse soils	1 pint
Medium soils	1 1/2 pints
Fine soils	2 pints
Coarse soils with 2 to 5% organic matter	1 1/2 pints
Soils with 5.1 to 10% organic matter	2 to 2 1/2 pints

If a combination of high organic matter (4 to 10%) and charcoal are present in the soil, apply TRIFLURALIN 4EC the second year at the following rates labeled for charcoal soils in Arkansas, Louisiana and Mississippi:

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Coarse soils .....	1 1/2 pints per acre
Medium soils .....	2 1/2 pints
Fine soils .....	3 pints

For more information on charcoal soils see page 6.

#### CROP ROTATION

The program for red rice control in soybeans is a 2-year program. Use the rates listed for first year application and plant soybeans. The second year use the normal TRIFLURALIN 4EC rates listed for your soil type and charcoal level and plant only those crops for which TRIFLURALIN 4EC has been registered as a preplant treatment or injury may result. Do not plant rice the second year. Rice may be planted the third year.

#### PRECAUTIONS

Plant soybeans after early adverse weather conditions have passed. Do not plant soybeans deeper than 2 inches. Crop injury may occur under adverse cool, wet weather conditions early in the season when TRIFLURALIN 4EC is used according to these double-rate recommendations.

#### TRIFLURALIN 4EC APPLIED ALONE AND IN COMBINATION WITH SENCOR WITH FLUID FERTILIZERS

##### GENERAL

TRIFLURALIN 4EC alone and TRIFLURALIN 4EC plus Sencor may be applied with most fluid (liquid) fertilizer materials. TRIFLURALIN 4EC alone and TRIFLURALIN 4EC plus Sencor with solutions and suspension-type fertilizers has provided weed and grass control as claimed on the respective labels.

All recommendations for TRIFLURALIN 4EC alone or TRIFLURALIN 4EC plus Sencor tank mix combinations regarding rates per acre, approved crops, incorporation, special instructions, cautions and special precautions must be followed.

All individual state regulations relating to fluid fertilizer mixing, registrations, labeling and application are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

##### COMPATIBILITY TEST

TRIFLURALIN 4EC alone and TRIFLURALIN 4EC plus Sencor and some fluid fertilizer materials may not combine properly. Small quantities should always be tested before full-scale mixing.

1. Put 1 pint of fertilizer mixture in a quart jar.
2. Add 2 teaspoonfuls of TRIFLURALIN 4EC and 2 level teaspoonfuls of Sencor as usage dictates.
3. Close jar and shake well.
4. Watch mixture for several seconds, check again 30 minutes later.
5. If the mix does not separate or if agitation is only needed to resuspend the Sencor, the combination may be used. If the mixture separates, gets very thick or syrupy, DO NOT combine for field application.
6. Mixing ability may be improved by adding a compatibility agent. The suggested compatibility agents are Kalo Laboratories' Complex, Witco Chemicals' Sponto 168D and Rhom and Haas' Triton QS-44. All agents are used in the same way. Follow the procedure outlined above and add 1/10 teaspoonful of the compatibility agent in Step 2. Complete the other steps to determine if the compatibility agent solves the problem.  
If a compatibility agent is needed, Complex should be used at a rate of 5 to 15 pints per ton of fluid fertilizer. Sponto 168D should be used at the rate of 1.5 to 2 pints per ton of fluid fertilizer. And Triton QS-44 should be used at the rate of 1.5 to 2 pints per ton of fluid fertilizer.  
Sponto 168D and Triton QS-44 are recommended when fluid fertilizer blends are used and are particularly useful in high potash grades of fluid fertilizer such as 2-6-12. Complex is recommended for use only in high nitrogen grade fluid fertilizer such as 28-0-0. If Complex is used, follow compatibility test procedures adding 1/4 teaspoonful of Complex.

##### MIXING

If a compatibility agent is needed, add it to the fluid fertilizer before adding the TRIFLURALIN 4EC alone or TRIFLURALIN 4EC plus Sencor combination. If compatibility is a problem mix 2 quarts of water with 1 quart of TRIFLURALIN 4EC alone or TRIFLURALIN 4EC plus Sencor combination before pouring into the fertilizer.

TRIFLURALIN 4EC alone or in combination with Sencor may be poured directly into the fluid fertilizer and mixed thoroughly. Wettable powders should be mixed with the liquid fertilizer before adding TRIFLURALIN 4EC. Continued agitation is needed until application is complete.

##### APPLICATION

Spread the fertilizer/chemical mixture normally with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

##### INCORPORATION

Follow normal TRIFLURALIN 4EC incorporation procedures.

#### TRIFLURALIN 4EC APPLICATION WITH DRY BULK FERTILIZERS

##### GENERAL

Dry bulk fertilizers may be impregnated or coated with TRIFLURALIN 4EC. Application of dry bulk fertilizers impregnated with TRIFLURALIN 4EC has provided weed and grass control equal to the same rates of TRIFLURALIN 4EC applied in water.

All TRIFLURALIN 4EC label recommendations regarding rates per acre, approved crops, incorporation, special instructions, cautions and special precautions must be followed.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

##### LIMITATIONS

Apply a minimum of 200 pounds per acre of dry fertilizer impregnated with TRIFLURALIN 4EC at the recommended rates. Any commonly used dry fertilizers can be used for TRIFLURALIN 4EC impregnation except straight coated ammonium nitrate and straight 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. The nozzle or nozzles used to spray the TRIFLURALIN 4EC on

to the fertilizer should be placed to provide uniform spray coverage.

#### RATES

Check the crop section to determine the rate of TRIFLURALIN 4EC per acre. See the rate table which follows to determine the amount of TRIFLURALIN 4EC to be impregnated on a ton of dry bulk fertilizer based on the amount of fertilizer which will be applied per acre. (See rate chart below.)

#### APPLICATION

Spread the fertilizer/chemical mixture normally with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

#### INCORPORATION

Follow normal TRIFLURALIN 4EC incorporation procedures.

### RATE CHART FOR IMPREGNATING FERTILIZER WITH TRIFLURALIN 4EC

TRIFLURALIN 4EC added to a TON of fertilizer

Fertilizer Rate Per Acre	TRIFLURALIN 4EC Rate Per Acre				
	1 pint	1 1/2 pints	2 pints	3 pints	4 pints
200 pounds	10 pts. or 5 qts. per ton	15 pts. or 7 1/2 qts. per ton	10 qts. or 2 1/2 gals. per ton	15 qts. or 3 3/4 gals. per ton	20 qts. or 5 gals. per ton
250 pounds	8 pts. or 4 qts. per ton	6 qts. or 1 1/2 gals. per ton	8 qts. or 2 gals. per ton	12 qts. or 3 gals. per ton	16 qts. or 4 gals. per ton
300 pounds	6 3/4 pts. or 3 1/2 qts. per ton	10 pts. or 5 qts. per ton	14 pts. or 1 3/4 gals. per ton	20 pts. or 2 1/2 gals. per ton	27 pts. or 13 1/3 qts. per ton
350 pounds	5 3/4 pts. or 2 3/4 qts. per ton	9 pts. or 1 1/8 gals. per ton	12 pts. or 1 1/2 gals. per ton	17 pts. or 2 1/4 gals. per ton	23 pts. or 2 7/8 gals. per ton
400 pounds	5 pts. or 2 1/2 qts. per ton	7 1/2 pts. or 1 gal. per ton	5 qts. or 1 1/4 gals. per ton	15 pts. or 1 7/8 gals. per ton	10 qts. or 2 1/2 gals. per ton
450 pounds*	4 1/2 pts. or 2 1/4 qts. per ton	3 1/3 qts. or 7/8 gal. per ton	4 1/2 qts. or 1 1/8 gals. per ton	13 1/3 pts. or 1 3/4 gals. per ton	9 qts. or 2 1/4 gals. per ton

For rates other than those listed above, use the following formula to calculate the amount of TRIFLURALIN 4EC to be impregnated on a ton of dry bulk fertilizer.

$$\begin{array}{rcccl} \text{Pints} & & & & \text{Quarts} \\ \text{TRIFLURALIN 4EC} & \times & \frac{1000}{\text{Lbs. Fertilizer}} & = & \text{TRIFLURALIN 4EC} \\ \text{Per Acre} & & \text{Per Acre} & & \text{Per Ton of Fertilizer} \end{array}$$

#### STORAGE AND CONTAINER REUSE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater.

**TANK CLEANING:** Triple rinse (or equivalent) and wash with appropriate cleaners before reusing.

**MINI-BULK REUSE:** This container may be offered for refilling with Trifluralin 4EC Herbicide if the tank seal has not been broken or removed.

**METAL DRUM DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning or dispose of by procedures approved by state and local authorities.

**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.

#### 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.

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