5905 -519 06/18/2001 1/52

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (TS-767)
WASHINGTON, DC 20460

NOTICE OF PESTICIDE: [X] REGISTRATION [ ] REREGISTRATION

(Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)

EPA REGISTRATION NO.	DATE OF ISSUANCE
5905-519	JUN 18 2001

TERM OF ISSUANCE: Conditional

NAME OF PESTICIDE PRODUCT: TRIFLURALIN 4 E.C.

NAME AND ADDRESS OF REGISTRANT *(Include ZIP code)*

HELENA CHEMICAL COMPANY
6075 Poplar Avenue, Suite 500
Memphia, TN 38119

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

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA Section 4(g)(2)(C). Reregistration under this section of the Act does not eliminate the need for continual reassessment of the registration of this product. Reregistration under the Trifluralin RED is conditional until you have provided this Agency a final printed label.

- o Add the statement "Contains Petroleum Distillates" to the labeling directly below the last line of the Ingredient Statement.

If these conditions are not complied with, the registraion will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product under the enclosed stamped copy of the label constitutes acceptance of these conditions.

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

Enclosure

[ ] ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL: Joanne I. Miller

DATE: JUN 18 2001

EPA Form 8570-6 (Rev. 5-76) PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED. *U.S. GPO: 1992-312-018/60003

TRIFLURALIN 4 E.C.

HERBICIDE

A selective herbicide for the preemergence control of annual grasses and broadleaf weeds.

ACTIVE INGREDIENT:

Trifluralin: α,α,α-trifluoro-2,6-dinitro-*N*,*N*-dipropyl-*p*-toluidine	43.0%
INERT INGREDIENTS:	57.0%
TOTAL	100.0%

One gallon contains 4 pounds of trifluralin.

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 the label, find someone to explain it to you in detail.)

See Inside Booklet for Additional Precautions and Directions For Use.

EPA REG. NO. 5905- 519 NET CONTENTS:

EPA EST. NO.: First letters of product batch code indicate producing establishment.
5905-GA-001=CG, 5905-AR-001=WA, 5905-IA-001=DI, 5905-CA-001=KC

HELENA CHEMICAL COMPANY
6075 POPLAR AVENUE, SUITE 500
MEMPHIS, TN 38119

ACCEPTED
with COMMENTS
In EPA Letter Dated
JUN 18 2001
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
5905-519

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get in eyes or on clothing. Avoid contact with skin. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID

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

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

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

HOT LINE NUMBER

For additional information, in case of emergency, call 800-424-9300.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are made of barrier laminate or viton. If you want more options, follow the instructions for category G on an EPA Chemical resistance category selection chart.

Mixers, loaders and applicators and all other handlers must wear:

-Long-sleeved shirt and long pants
-Socks and shoes
-Goggles or face shield, and
-Chemical resistant gloves

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

Engineering Controls Statements

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to freshwater, marine, and estuarine fish and aquatic invertebrates including shrimp and oyster. Do not apply in a manner which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

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 treated area if there will be no contact with anything that has been treated.

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

-coveralls
-chemical-resistant gloves made of any waterproof material
-shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow others to enter the treated area until sprays have dried.

STORAGE AND DISPOSAL

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

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

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

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

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

APPLICATION BY CHEMIGATION

TRIFLURALIN 4 E.C. may be applied through properly equipped chemigation systems for weed control in certain crops as specified in "Approved Crops" section of this label. Read and follow all label instructions outlined below concerning chemigation before applying by this method.

General Chemigation Directions:
Apply this product only through continuously moving center pivot, lateral move, or end tow sprinkler irrigation systems equipped for chemigation. Do not apply this product through any other type of irrigation system.

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

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

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

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

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

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point that pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. **TRIFLURALIN 4 E.C.** should be injected continuously throughout the chemigation period. The chemigation metering pump should be checked periodically during application to insure proper operation.
9. The injection metering pump must be calibrated as specified by the manufacturer.
10. During chemigation, maintain agitation in supply tank at all times.
11. **TRIFLURALIN 4 E.C.** may cause some staining of plastic hoses and tanks.
12. Apply in sprinkler irrigation equal to 1/2 to 1 inch of water.

Chemigation System Calibration:
Sample calculation for use of **TRIFLURALIN 4 E.C.** in a chemigation system:
- Assume, in this example, 133 acres is to be covered by a chemigation treatment.
- Product required, assuming 1.5 pints per acre is 199.5 pints
  (133 acres X 1.5 pt./acre = 199.5 pt. = 25 gallons)
- Add 25 gallons of product directly to the injection supply tank.

- Adjust the injection system to deliver 25 gallons during the time required to apply 1 inch of water to 133 acres.

If the irrigation system requires 20 hours to apply 1 inch of water to 133 acres, the injection rate is 1.25 gal/hr and is calculated as follows:
- 25 gal ÷20 hr = 1.25 gal/hr
- 1.25 gal/hr = 160 fl oz/hr

Proper calibration requires the injection pump to be adjusted to deliver 2.7 fl oz/min and is calculated as follows:
- 160 fl oz/hr ÷ 60 min/hr = 2.7 fl oz per min.

Chemigation Mixing Directions

Undiluted: When used alone, the injection of undiluted **TRIFLURALIN 4 E.C.** is recommended in chemigation systems. For undiluted use, the metering pump, supply tank, and any associated quipment must be thoroughly clean and dry before product is added to the system for injection. When injecting undiluted, maintain continuous agitation in the supply tank.

Diluted: TRIFLURALIN 4 E.C. may be diluted if required to achieve accurate calibration for existing equipment. Partially fill the injection supply tank with a volume of water equal to the amount of product required (do not add water to this product). Start agitation. Add the required amount of product to water in the supply tank and continue mixing while filling the tank to the final volume required by the injection pump calibration. When injecting diluted, maintain continuous agitation in supply tank.

SPRAY DRIFT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors to determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Information on Droplet Size

The most effective way to reduce droplet potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature, and Humidity, and Temperature Inversions).

Controlling Droplet Size

- Volume- Use high flow rate nozzles to apply the highest practical spray volume. Nozzles With higher rated flows produce larger droplets.
- Pressure- Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles- Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation- Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle type- Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid steam nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is afe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Application should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, the movement of smoke from a ground source r an aircraft smoke generator can also identify inversions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

GENERAL INFORMATION

TRIFLURALIN 4 E.C. herbicide is a selective herbicide for the preemergence control of annual grasses and broadleaf weeds which may be applied in liquid sprays of water or liquid fertilizer, or impregnated on dry bulk fertilizer. To prevent loss of herbicidal activity, it must be soil incorporated ithin 24 hours after application. This product may be tank mixed or followed by overlay or postemergence treatments with other herbicides to improve the spectrum of weeds controlled. It. controls weeds by disrupting growth processes during germination. **TRIFLURALIN 4 E.C.** does not control established weeds.

General Use Precautions

Applied according to directions and under normal growing conditions, **TRIFLURALIN 4 E.C.** will not harm the treated crop. Over application may result in crop injury or rotational crop damage from soil residue. Uneven application or improper incorporation can result in erratic weed control or crop injury. Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration, or drought may weaken crop seedlings and increase the possibility of damage. Under these conditions, delayed crop development or reduced yields may result.

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

Do not use on any crop grown in Pecos County or Reeves County, Texas.

Chemigation: TRIFLURALIN 4 E.C. may be applied by chemigation on certain crops. See instructions for chemigation in the "Application Methods" section of this label. Also, see specific instructions for certain crops in the "Approved Crops" section of this label.

ROTATION CROP RESTRICTIONS
Sugarbeets, Redbeets, and Spinach

In Arizona, Colorado, California, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming: Sugarbeets, redbeets, or spinach should not be planted for 12 months after a spring application or 14 months after a fall application of **TRIFLURALIN 4 E.C.** Plowing to a depth of 12 inches prior to planting these crops will reduce the possibility of crop injury. If land has not been irrigated, these crops should not be planted for 18 months after a spring application or 20 months after a fall application.

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

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

In Arizona, Colorado, California, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming: Proso millet, corn, sorghum (milo), oats, and annual or perennial grass crops or grass mixtures should not be planted for 12 months after a spring application or 14 months after a fall application of **TRIFLURALIN 4 E.C.** to avoid the possibility of crop injury. If land has not been irrigated, these crops should not be planted for 18 months after a spring application or 20 months after a fall application. Moldboard plowing to a depth of 12 inches before planting these crops will reduce the possibility of crop injury.

In Minnesota, North Dakota, and South Dakota: Proso millet, sorghum (milo), oats, and annual or perennial grass crops or grass mixtures should not be planted for 18 months after a spring application or 21 months after a fall application.

In those portions of Kansas, Nebraska, Oklahoma, and Texas that receive less than 20 inches of rainfall and irrigation to produce a crop: Do not plant proso millet, sorghum (milo), oats and annual or perennial grass crops or grass mixtures for 18 months after an application. In sorghum, cool wet weather conditions during early growth stages may increase the possibility of crop injury. In areas receiving more than 20 inches of rainfall and irrigation, these crops should not be planted for 12 months after a spring application or 14 months after a fall application.

Other Crops
Vegetable crops other than those listed on this label for use with preplant soil incorporated application should not be planted within 5 months after an application.

Soil Texture Guide for Application Rates

Rate recommendations for incorporated treatments of **TRIFLURALIN 4 E.C.** are based on "Soil Texture Class" (coarse, medium, or fine) and soil organic matter content. A fine textured soil (e.g., clay loam) will require higher application rate than a coarse textured soil (e.g., loamy sand). In the table below, find the "Soil Texture Class" (coarse, medium, or fine) corresponding to the "Soil Texture to be Treated". Choose the proper rate for each application based on the "Soil Texture Class" and specific crop recommendations. Do not exceed recommended rates.

Soil Texture Class	Soil Texture to be Treated
Coarse (Light) Soils	Sand, loamy sand, sandy loam
Medium Soils	Loam, silty clay loam*, silt loam, silt, sandy clay loam*
Fine (Heavy) Soils	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 predominantly sand or silt, they are usually lassified as medium textured soils. If soils are predominantly clay, they are usually classified as fine textured soils.

MIXING DIRECTIONS

TRIFLURALIN 4 E.C. - Alone

This product may be mixed with water or most liquid fertilizer materials. Prior to mixing in liquid fertilizer, refer to the label section entitled "Testing for Compatibility in Liquid Fertilizers" for testing procedures to determine compatibility with the liquid fertilizer product to be used. The combination with solution and suspension-type fertilizers provides weed and grass control equal to water sprays.

Fill spray tank 1/3 to 1/2 full with clean water or liquid fertilizer. Start agitation. Add correct amount of product and continue agitation while filling tank to required spray volume.

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

TRIFLURALIN 4 E.C. - Tank Mix

This product may be tank mixed with other products and applied with water or most liquid fertilizer materials. Prior to mixing tank mixes with liquid fertilizer, refer to label section entitled "Testing for Compatibility in Liquid Fertilizers" for testing procedures to determine tank mix compatibility with the liquid fertilizer product to be used.
Vigorous, continuous agitation during mixing, filling, and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming during filling, keep end of fill pipe below the surface of the liquid in the spray tank.

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

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

Maintain agitation and fill spray tank to 3/4 of total spray volume. Add **TRIFLURALIN 4 E.C.** and other emulsifiable concentrates (EC) and any solutions (S).
Finish filling the spray tank. Maintain continuous agitation during mixing, final filling, and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

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

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

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

Testing for Compatibility in Liquid Fertilizers
TRIFLURALIN 4 E.C. alone or in tank mix combination with dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) may not combine properly with some liquid fertilizer materials. Small quantities should always be tested before full scale mixing. Follow the testing procedure below to determine if a compatibility agent is needed and which one works best in your herbicide/fertilizer mixture. The seven compatibility agents listed at the end of this section have been thoroughly tested. Other surfactants commercially available may or may not be suitable for use with liquid fertilizers.

Testing Procedure
1. Add 1 pint of the liquid fertilizer to a quart jar.
2. Add 1 to 4 teaspoon(s) of the DF, WP, AS, F, or L formulation (depending on mixing ratio required) to the liquid fertilizer. Close the jar and agitate until the materials are evenly dispersed in the liquid fertilizer. If the materials do not disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
3. After dispersing the materials (step 2), add 3 to 4 teaspoons to the jar and shake well. Add solution herbicides to the mixture last and agitate. Observe the jar for about 10 minutes. If materials rise to the surface and form a thick layer (oily curds) that will not redisperse when agitated, a compatibility agent is needed. If the mixture is easily redispersed with slight agitation, a compatibility agent is not required. Good agitation, however, must be provided to maintain dispersion in the spray tank.
4. If the need for a compatibility agent is demonstrated (step 3) the following procedure is recommended: Using a clean quart jar repeat step 1 above and add 1/2 teaspoon of the compatibility agent to the liquid fertilizer. Mix well and repeat steps 2 and 3.

An effective compatibility agent will cause the mixture to remain uniformly dispersed with little or no separation (oil rising to the surface) for one half hour or longer. If slight separation occurs, 2 to 3

inversions of the jar should be sufficient to uniformly redisperse the mixture. If oily curds form and will not redisperse, an additional compatibility agent or an alternative compatibility agent should be tried. Use a clean jar for each test. A compatible mixture will have a uniform appearance and will be relatively easy to redisperse with gentle agitation of the jar.

Compatibility Agents
The phosphate ester-type surfactants listed below are designed for use with liquid fertilizers and can be mixed at rates as low as 1-1/2 to 2 pints per ton of liquid fertilizer. Add the compatibility agent just before adding pesticides.

1. Blendex® VHC
2. Induce® pH

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

Precautions:
Do not use the compatibility agents listed above for tank mixes in plain water.
Read the compatibility agent label for use directions and precautions before use.

Application Methods

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

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

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

Application with Dry Bulk Fertilizer
Dry bulk fertilizers impregnated or coated with **TRIFLURALIN 4 E.C.** may be applied as a preplant incorporated treatment on approved crops. All label recommendations regarding application rates, incorporation directions, special instructions, and precautions should be followed. Read and follow all label instructions below concerning use with dry bulk fertilizer. Properly applied dry bulk fertilizers impregnated with this product provides weed and grass control equal to water sprays.

Use the following formula to calculate the amount of **TRIFLURALIN 4 E.C.** required to impregnate a ton of dry bulk fertilizer.

Pints **TRIFLURALIN 4 E.C.** Per Acre	X	1000 / Pounds Fertilizer Per Acre	=	Quarts **TRIFLURALIN 4 E.C.** Per Ton of Fertilizer

Limitations: Apply a minimum of 200 lb./acre of dry fertilizer impregnated with this product at the recommended broadcast rate per acre. Any commonly used dry fertilizer can be used for impregnation of **TRIFLURALIN 4 E.C.** except coated ammonium nitrate and pure limestone. These materials will not absorb the herbicide. Blends containing mixtures of these materials can be impregnated.

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

Application and Incorporation: Spread the fertilizer/chemical mixture with properly calibrated application equipment. Be certain the material is applied uniformly to the soil surface. **TRIFLURALIN 4 E.C.** should be incorporated 2 times when impregnated on dry bulk fertilizer. The first incorporation should occur within 24 hours after application. The second incorporation should be delayed 3 to 5 days after the first and be completed prior to planting.

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

Application Timing

`pring Application

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

Fall Application

Fall application can be used for all crops for which **TRIFLURALIN 4 E.C.** is recommended as a preplant incorporated treatment. Refer to "Approved Crops" section for any crop specific fall application instructions.

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

Ground may be bedded up over winter. On bedded ground, reduce beds to desired height before planting, by moving some treated soil from beds into furrows. Where soil is left flat over winter, care should be taken not to turn up untreated soil during spring bedding operations. Destroy established

weeds during seedbed preparation. Weeds established in furrows as a result of exposing untreated soil should be destroyed before planting. Fall application is not recommended on fields which remain wet or are subject to periods of flooding.

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

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

Incorporation Directions

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

Break up clods using tillage equipment prior to application. **TRIFLURALIN 4 E.C.** must be incorporated within 24 hours after application. With most equipment and methods of application, a second incorporation is required and may occur any time before planting. The second incorporation should be in a different direction, and to avoid bringing untreated soil to the surface, should not be deeper than the first.

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

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

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

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

Cultivation After Planting: Treated crops may be shallowly cultivated without reducing the weed control activity. Limit depth of cultivation to the zone of treated soil (2 to 3 inches) to avoid moving untreated soil to the surface. Exposure of untreated soil may cause loss of weed control.

Incorporation Equipment
Use incorporation equipment capable of mixing uniformly into the top 2 to 3 inches of the final seedbed. Use of inappropriate equipment or improper use of recommended equipment may result in erratic weed control and/or crop injury. Incorporation equipment such as a tandem disc will mix **TRIFLURALIN 4 E.C.** approximately half as deep as the equipment is set to operate. For example, a disc set to cut four inches deep will mix most of the product within the top two inches of the soil. Any recommended incorporation implement may be used alone or in combination with any other recommended implement. Two incorporation passes are required unless otherwise specified.

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

'ield Cultivator: Set equipment to cut 3 to 4 inches deep and operate at a minimum of 5 mph. A field cultivator is defined as an implement with 3 to 4 rows of sweeps, spaced at intervals of 7 inches or less and staggered so that no soil is left unturned. Chisel points should not be used.

Combination Seedbed Conditioners: These implements are defined as three or more tillage devices combined to operate as a single tillage unit. For example, 2 to 3 rows of field cultivator C- or S-shaped shanks with an effective sweep spacing of 6 to 9 inches, (staggered so that no soil is left unturned), followed by a spike-tooth or flextine harrow, followed by a ground driven reel or basket. Combination implements should be set to cut 3 to 4 inches deep and operated at a minimum of 6 mph. **TRIFLURALIN 4 E.C.** can be incorporated with one pass when using a combination seedbed conditioner. Two incorporations are required under conditions which prevent optimum soil mixing such as excessive trash, roughness, high clay content, or soil moisture.

Rolling Cultivator: Set equipment to cut 2 to 4 inches deep and operate at 6 to 8 mph. Generally, olling cultivators are adequate for use only on coarse and medium soils. In sugarcane, the rolling cultivator may be used on fine textured soils.

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

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

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

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

Weeds Controlled by TRIFLURALIN 4 E.C.

Grass Weeds

Common name	Scientific name
annual bluegrass	*Poa annua*
barnyardgrass (watergrass)	*Echinochloa crus-galli*
brachiaria (signalgrass)	*Brachiaria* spp.
bromegrass (cheatgrass) (downy brome)	*Bromus tectorum*
cheat (chess)	*Bromus secalinus*
crabgrass (large crabgrass) (smooth crabgrass)	*Digitaria* spp.
foxtail (bottlegrass) (bristlegrass) (giant foxtail) (green foxtail) (foxtail millet) (pigeongrass) (robust foxtail) (yellow foxtail)	*Setaria* spp.
guineagrass (See special instructions for control in sugarcane in the "Approved Crops" section.)	*Panicum maximum*
itchgrass (raoulgrass) (See special instructions for control in sugarcane in the "Approved Crops" section.)	*Rottboellia exaltata*
johnsongrass (from seed) (rhizome) - (See special instructions for control in cotton, soybeans, fruit and nut crops, and vineyards in the "Approved Crops" section.)	*Sorghum halepense*
junglerice	*Echinochloa colonum*
oats, wild*	*Avena fatua*
panicum	
fall panicum (spreading panicgrass) - (See special instructions for control in cotton and soybeans in the "Approved Crops" section.)	*Panicum dichotomiflorum*
ryegrass, Italian (annual ryegrass)	*Lolium multiflorum*
Texas panicum (buffalograss) (Coloradograss)	*Panicum texanum*

red rice	*Oryza sativa*
(See special instructions for suppression or partial control in soybeans in the "Approved Crops" section.)	
sandbur (burgrass)	*Cenchrus incertus*
sprangletop	*Leptochloa filiformis*
stinkgrass (lovegrass)	*Eragrostis cilianensis*
shattercane (wildcane)	*Sorghum bicolor*
(See special instructions for control in soybeans in the "Approved Crops" section.)	
woolly cupgrass	*Eriochloa villosa*

* When applied as a preplant incorporated treatment, **TRIFLURALIN 4 E.C.** controls wild oats that germinate in the treated zone. Wild oat control is not claimed for incorporated uses in small grains.

Broadleaf Weeds

Common Name	**Scientific Name**
carpetweed	*Mollugo verticillata*
chickweed	*Stellaria media*
field bindweed	*Convolvulus arvensis*
(See special instructions for control in fruit and nut crops and vineyards in the "Approved Crops" section.)	
goosefoot	*Chenopodium hybridum*
henbit	*Lamium amplexicaule*
knotweed	*Polygonum aviculare*
kochia (fireweed) (Mexican fireweed)	*Kochia scoparia*
lambsquarters, common	*Chenopodium album*
pigweed (careless weed) (prostrate pigweed) (redroot) (rough pigweed) (spiny pigweed)	*Amaranthus* spp.
(See special instructions for control in soybeans in "Approved Crops" section.)	
puncturevine (Western U. S. only) (caltrop) (goatweed)	*Tribulus terrestris*
purslane, common	*Portulaca oleracea*
pusley, Florida (Florida purslane)	*Richardia scabra*

(Mexican clover) (pusley)	
Russian thistle (tumbleweed)	*Salsola iberica*
stinging nettle (nettle)	*Urtica dioica*

Special Use Programs

TRIFLURALIN 4 E.C. is approved for the following special use programs. Refer to "Approved Crops" section of this label for details on soil preparation, use rates, application, soil incorporation, and precautions for each type or program.

Cotton
- Fall Panicum Control
- Pigweed and Seedling Johnsongrass Control
  Additional Weed and Grass Control (Gulf Coast Counties of Texas)
- Rhizome Johnsongrass Control

Soybean
- Fall Panicum Control
- Pigweed and Seedling Johnsongrass Control
- Additional Weed and Grass Control (Gulf Coast Counties of Texas)
- Rhizome Johnsongrass Control
- Charcoal Soils in Arkansas, Louisiana, and Mississippi
- Red Rice Control in Arkansas, Louisiana, Mississippi, and Texas
- Wild Cane (shattercane) Control
- **TRIFLURALIN 4 E.C.** plus Sencor® or Lexone® for Rhizome Johnsongrass Control

Fruit and Nut Crops and Vineyards
  Rhizome Johnsongrass Control
- Field Bindweed Control

APPLICATION INSTRUCTIONS

ALFALFA – ESTABLISHED

Mechanically Incorporated

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5
Medium	2.0
Fine	2.0

Surface Applications (Chemigation or Water Incorporated)
TRIFLURALIN 4 E.C. may be surface applied for annual grass control in established alfalfa by chemigation, or ground, or aerial broadcast application equipment.

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

Surface Applications Activated by Rainfall or Irrigation
Broadcast surface applications to established alfalfa may be activated by rainfall, sprinkler, flood, or furrow irrigation. Rainfall or a single overhead sprinkler irrigation of 0.5 acre inch or more is required to activate product. If activated by furrow irrigation, care should be taken to thoroughly wet beds between furrows. If rainfall or irrigation has not occurred within 3 days after application, product may be mechanically incorporated. If mechanically incorporated, use equipment that will insure thorough soil mixing with minimum damage to the established alfalfa.

Application Timing and Weeds Controlled
Applications to established alfalfa for annual grass control can be made during dormancy or semi-dormancy, or during the growing season immediately after a cutting. Because **TRIFLURALIN 4 E.C.** does not control established weeds, application must be made prior to the expected time of weed germination. Bromegrass and cheat begin to germinate in the fall with the onset of cooler weather. To control these weeds, apply immediately after a cutting between August 1 and October 1, but prior to weed germination. When fall applied, bromegrass and cheat are controlled in addition to other labeled weeds that germinate after application.

The following weeds are controlled when **TRIFLURALIN 4 E.C.** is applied by chemigation or surface applied and incorporated by rainfall or irrigation:

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
All Soil Textures	4.0

Precautions:
- Do not cut or graze alfalfa forage within 21 days after application, or within 20 days for alfalfa hay.
- Apply no more than 4 pts. during any growing season. In the growing season following application of 4 pts. to alfalfa, plant only those crops for which product is registered as a preplant treatment or crop injury may occur.

Tank Mix Combinations

Other products registered for use on established alfalfa may be ground broadcast in tank mix combination with **TRIFLURALIN 4 E.C.** or applied as sequential treatments following application of product. Tank mixes must be applied when alfalfa is dormant or semi-dormant, or immediately after a cutting.

Precaution: Refer to the tank mix product label for application rates, weeds controlled, additional use directions, precautions, and limitations before use.

ASPARAGUS - ESTABLISHED

Apply **TRIFLURALIN 4 E.C.** to established asparagus as a single or split application. This product will suppress volunteer seedling asparagus and field bindweed when applied as directed. Follow recommended soil preparation, application and incorporation procedures.

Application Timing

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

Broadcast Application Rates/Acre:
TRIFLURALIN 4 E.C.

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

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

BEANS - DRY BEANS

TRIFLURALIN 4 E.C. - Alone

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

TRIFLURALIN 4 E.C. plus Eptam® Tank Mix

This product may be tank mixed with Eptam® 7E and applied as a preplant incorporated treatment to control additional weeds. Use application rates recommended for dry beans "**TRIFLURALIN 4 E.C.** - Alone", above. Refer to the label for Eptam® for application rates, additional use directions, precautions, and limitations before use.

BEANS - GUAR AND MUNGBEAN

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.5
Fine	1.5

BEANS - LIMA BEAN AND SNAP BEAN

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.0
Fine	1.5

CARROT

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

CASTOR BEAN

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5

Fine	1.5 - 2.0

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

CELERY

Apply as a soil incorporated treatment. Product may be applied to direct seeded or transplant celery before planting, at planting, or immediately after planting.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

CHICORY / ENDIVE

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.5
Fine	2.0

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

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

Direct Seeded Cole Crops

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.0
Fine	1.5

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

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

Transplanted Cole Crops
Apply and incorporate prior to transplanting.

Broadcast Application Rates/Acre	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

CORN - FIELD CORN ONLY

Postemergence Incorporated Treatment
Apply as a postemergence treatment following cultivation or use of a preemergence herbicide. Product does not control established weeds. Apply when crop is well established (2 true leaf stage or taller). Apply as an over-the-top spray or as a directed spray using drop nozzles if foliage prevents uniform coverage of the soil surface.

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

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	0.75 - 1.0*
Medium	1.0 - 1.5
Fine	1.5 - 2.0

* Apply 1.0 to 1.5 pt./acre on coarse soils in Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia to control fall panicum and Texas panicum.
- Apply lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

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

Chemigation

TRIFLURALIN 4 E.C. may be applied through properly equipped chemigation systems for weed control in field corn. Refer to "Application by Chemigation" section in the "General Information" section of this label for chemigation use directions. Do not apply through any type of irrigation system unless these directions are carefully followed.

Application Timing
Apply in 0.5 to 1 acre inch of sprinkler irrigation when field corn is at the 2 true leaf stage of growth or taller. Apply prior to weed emergence or after existing weeds have been controlled with herbicides or cultivation. Product does not control established weeds.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5 - 2.0
Medium	1.5 - 2.0
Fine	Do not apply **TRIFLURALIN 4 E.C.** by chemigation to fine textured soils.

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

TRIFLURALIN 4 E.C. plus Atrazine Tank Mix
This product may be applied in tank mix combination with atrazine plus an emulsifiable oil or oil concentrate when corn is at the 2-leaf stage of growth or taller and weeds are no more than 1-1/2 inches in height. A period of 24 to 48 hours is required to obtain atrazine postemergence activity after which the preemergence activity of the product plus atrazine combination may be activated by 0.5 inch or more of rainfall or overhead sprinkler irrigation or mechanical incorporation. Use the application rates and incorporation methods recommended under "Postemergence Incorporated Treatment" in the "Corn - Field Corn Only" section of this label.

Precautions:
- Where corn is planted in a furrow, product should be applied only after a cultivation to move soil into the row.
- Refer to the product label for atrazine for application rates, additional use directions, precautions, and limitations before use.

COTTON

TRIFLURALIN 4 E.C. - Alone
Apply to cotton as a soil incorporated treatment. Product may be applied before planting, immediately after planting, to the established crop up to layby, or in the fall. Refer to instructions for fall application under "Application Timing" in the "General Information" section of this label. Follow recommended soil preparation, application, and incorporation procedures in the "General Information" section of this label. When incorporating after planting, but prior to crop emergence, set equipment so as not to disturb planted seed. Postemergence application may be made from the 4 true leaf stage of growth up to layby, but not less than 90 days before harvest. Apply postemergence

treatments as a directed spray beneath cotton plants to soil between the rows. Use the same application rates for preplant, preemergence, and layby treatments.

Broadcast Application Rates/Acre:
TRIFLURALIN 4 E.C.

Soil Texture	Spring Application* (pints)	Fall Application Eastern U.S.** (pints)	Western U.S.*** (pints)
Coarse	1.0	2.0	1.5
Medium	1.25 - 1.5	2.0	2.0
Fine	1.5 - 2.0	2.0	2.0

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

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

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

For cotton grown in states other than those listed above, fall apply at broadcast rates recommended for areas receiving greater than 20 inches average annual rainfall.

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

Layby Treatment
Apply and incorporate in established cotton from the 4 true leaf stage of growth up to layby, but not less than 90 days before harvest. Apply uniformly to the soil surface, using drop nozzles if necessary. Use the application rates recommended above for preplant incorporated treatments. Soil incorporate using one pass of a sweep-type cultivator or properly adjusted rolling cultivator. Operate cultivation equipment at speeds sufficient to provide vigorous soil mixing and exercise care to avoid mechanical injury to the crop.

Chemigation
TRIFLURALIN 4 E.C. may be applied through properly equipped chemigation systems for weed control in cotton. Refer to "Application by Chemigation" in the "General Information" section of this label for use directions for chemigation. Do not apply through any type of irrigation system unless these directions are carefully followed. Apply in overhead sprinkler irrigation equal to 1/2 to 1 inch of water. Planting and application should occur as soon as possible after the last tillage operation. Product must be applied within 2 days after planting prior to crop emergence. **TRIFLURALIN 4 E.C.**

does not control established weeds. Soil incorporation is not required when applied through chemigation systems.

Broadcast Application Rates/Acre: See rates for cotton "**TRIFLURALIN 4 E.C.** - Alone" above. Apply at the maximum recommended rate for each soil texture class to be treated.

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

SPECIAL USE PROGRAMS

Fall Panicum Control
Apply and incorporate a broadcast rate of 2.0 pt./acre on both coarse and medium soils.

Pigweed and Seedling Johnsongrass Control
Apply as a preplant incorporated treatment.

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

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0 - 1.5
Medium	1.5 - 2.0
Fine	2.0

- Use higher rates in the rate range where high weed populations are anticipated.

Additional Weed and Grass Control (Gulf Coast Counties of Texas)
Apply as a preplant incorporated treatment up to 2 weeks before planting.

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

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.5
Medium	2.0
Fine	2.0

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

Rhizome johnsongrass control requires double application rates for 2 consecutive years. Commercially acceptable control cannot be obtained with only one year of double rate use. Carefully follow all special use directions.

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

Broadcast Application Rates/Acre:	
Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	2.0
Medium	2.0
Fine	2.0

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

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

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

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

Precautions:
In the season following a double rate treatment, plant only rice or those crops for which **TRIFLURALIN 4 E.C.** can be applied as a preplant treatment or crop injury may occur.

Tank Mixes, Overlay, and Postemergence Treatments

TRIFLURALIN 4 E.C. in Tank Mix
Product may be tank mixed with Caparol®, Cotoran®, Zorial®, and other products registered for use on cotton as a preplant incorporated treatment to control additional weeds. Use the application rates for the product recommended for cotton "**TRIFLURALIN 4 E.C.** - Alone".

Precaution: Refer to the tank mix product label for additional weeds controlled, application rates, additional use directions, precautions, and limitations before use.

TRIFLURALIN 4 E.C. - Preplant Incorporated Followed by Overlay Treatments
Apply as a preplant incorporated treatment. Additional weeds tolerant to this product may be controlled using overlay preemergence applications of Cotoran®, Karmex®, Zorial®, or other products registered for use on cotton, unless use following **TRIFLURALIN 4 E.C.** is specifically prohibited by the manufacturer. Consult the manufacturer's labels for additional weeds controlled, use directions, and limitations before use.

TRIFLURALIN 4 E.C. - Preplant Incorporated Followed by Postemergence Treatments
Apply as a preplant incorporated treatment. Additional weeds tolerant to this product may be controlled using postemergence treatments of products registered for use on cotton, unless use following **TRIFLURALIN 4 E.C.** is specifically prohibited by the manufacturer. Consult the manufacturer's labels for additional weeds controlled, use directions, precautions, and limitations before use.

CUCURBITS - CANTELOUPE, CUCUMBER, AND WATERMELON

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

FORAGE LEGUMES

Forage Legumes Used as Cover Crops or in the Acreage Conservation Reserve Program - Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.0 - 1.5
Fine	1.5

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

Precautions:
- If used under the Acreage Conservation Reserve Program, follow the most severe grazing restrictions imposed by the USDA Conservation Use Program. Consult the local ASCS committee or other state agency to determine the period of the USDA grazing restriction.
- Some crop stand reduction may occur with this use; however, reduced weed competition will allow establishment of a quality stand.

GRAIN SORGHUM (MILO)

Postemergence Incorporated Treatment
Apply as a directed or over-the-top spray when grain sorghum is 8 inches tall or taller. Drop nozzles should be used if foliage prevents uniform soil coverage.

Soil Preparation: Cultivate before application to remove established weeds and to cover the base of grain sorghum plants with soil. Cultivation equipment should be set to add approximately 1 inch of soil to the base of sorghum plants.

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	0.75 - 1.0
Medium	1.0 - 1.5
Fine	1.5 - 2.0

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

Chemigation

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

Soil Preparation: Cultivate before application to destroy existing weeds and cover the base of the grain sorghum plants with soil. Cultivation equipment should be set to add approximately 1 inch of soil to the base of sorghum plants.

Application Timing: Apply to grain sorghum in 0.5 to 1 acre inch of overhead sprinkler irrigation as soon as possible after a cultivation when grain sorghum is at least 8 inches tall. Product must be applied prior to weed emergence or after existing weeds are controlled. Established weeds are not controlled.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	0.75 - 1.0
Medium	1.0 - 1.5
Fine	Do not apply by chemigation to fine textured soils.

Precautions:

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

TRIFLURALIN 4 E.C. plus Atrazine Tank Mix

This product may be applied in tank mix combination with atrazine plus an emulsifiable oil or oil concentrate when grain sorghum is 8 inches tall or taller and weeds are no more than 1-1/2 inches in

height. A period of 24 to 48 hours is required to obtain postemergence activity of atrazine after which the preemergence activity of the product plus atrazine combination may be activated by 0.5 inch or more of sprinkler irrigation or mechanical incorporation. Use application rates and incorporation methods recommended under "Postemergence Incorporated Treatment" in the "Grain Sorghum (Milo)" section of this label.

Precautions:
- Where grain sorghum is planted in a furrow, product should be applied only after a cultivation to move soil into the row.
- Refer to the product label for atrazine for application rates, additional use directions, precautions, and limitations before use.

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

Apply to greens as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0
Medium	1.5
Fine	1.5

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

HOPS

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

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5

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

MUSTARD - GROWN FOR SEED OR PROCESSED FOR FOOD

Apply to mustard as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0
Medium	1.5
Fine	1.5

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

OKRA

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

ONIONS - GROWN FOR DRY BULBS ONLY

Apply to established onions as a soil incorporated treatment. Apply as a directed spray to soil between onion rows. Spray shields should be used to avoid injury to foliage or exposed bulbs. Do not apply within 60 days of harvest.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	0.75 - 1.0
Medium	1.0 - 1.25

- Use lower rate in rate range in areas receiving less than 20 inches total rainfall and irrigation or where light weed pressure is anticipated.

Incorporation

Incorporate with 1 pass of a sweep-type or rolling cultivator. Set equipment to cut 2 to 4 inches deep and operate at 6 to 8 mph. Avoid covering exposed onion bulbs with treated soil during incorporation as crop injury may occur. Avoid injury to crop roots during incorporation.

Precautions: When applied according to directions under normal growing conditions, this product will not adversely affect onions. Diseases, improper incorporation depth, excessive moisture, high salt concentration, or drought may weaken the crop and increase the possibility of damage. Under these conditions, delayed crop development or reduced yields may result.

PEAS - DRY PEA AND ENGLISH PEAS

TRIFLURALIN 4 E.C. - Alone

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

Broadcast Application Rates/Acre:

TRIFLURALIN 4 E.C.

Soil Texture	Spring Application	Fall Application*

	(pints)	(pints)
Coarse	1.0	1.0
Medium	1.0	1.25 - 1.5
Fine	1.5	1.5

- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.
* May be fall applied to Dry and English Peas in the states of Idaho, Oregon, and Washington.

TRIFLURALIN 4 E.C. plus Far-Go® Tank Mix (For Use in Idaho, Oregon, and Washington)
This product may be tank mixed with Far-Go® and applied as a preplant soil incorporated treatment to control wild oats in dry and English peas. Use application rates recommended for dry and English peas **"TRIFLURALIN 4 E.C.** - Alone", above. Refer to the label for Far-Go® for application rates, additional use directions, precautions, and limitations before use.

PEAS - SOUTHERN PEAS

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

PEANUTS

TRIFLURALIN 4 E.C. - Alone
(For Use in Texas, Oklahoma, and New Mexico)
Apply and incorporate before planting, at planting, or immediately after planting. When incorporating after planting, adjust equipment so as not to disturb planted seed.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.5

PEPPERS (Transplant Only)

Apply and incorporate prior to transplanting.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5

Fine	1.5 - 2.0

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

POTATOES (Not for Use in the State of Maine)

TRIFLURALIN 4 E.C. - Alone

Apply and incorporate after planting prior to crop emergence, immediately following dragoff, or after potato plants have fully emerged.

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

Chemigation

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

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.5
Fine	Do not apply **TRIFLURALIN 4 E.C.** by chemigation to fine textured soils.

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

TRIFLURALIN 4 E.C. in Tank Mix
TRIFLURALIN 4 E.C. plus Eptam® Tank Mix - Post Plant Preemergence Treatment
This product may be tank mixed with Eptam® and applied as a soil incorporated treatment to control additional weeds. Apply after planting, but before crop emergence. In areas where potatoes are normally dragged off, apply and incorporate up to or immediately following drag off. Use application rate recommended for potatoes "**TRIFLURALIN 4 E.C.** - Alone". Refer to the label for Eptam® for application rates, additional use directions, precautions, and limitations before use.

RADISH

Apply as a preplant soil incorporated treatment.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.5
Fine	1.5

SAFFLOWER

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. Spring Application (pints)	TRIFLURALIN 4 E.C. Fall Application* (pints)
Coarse	1.0	1.5
Medium	1.25 - 1.5	2.0
Fine	1.5 - 2.0	2.5

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

* May be fall applied to safflower in the states of Arizona, California, Idaho, Nevada, Oregon, Utah, Washington, and Wyoming.

SMALL GRAINS - BARLEY, DURUM, AND WHEAT
Special Precautions for Use on Small Grains

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

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

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

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

Carefully follow incorporation directions. When applying preplant incorporated treatments, operate equipment at recommended depth and speed to place product into the upper 1 to 1.5 inches of soil. If applied after planting, set equipment so as not to disturb planted seed.

Set drills to place seed at a depth specified in use directions. A planting depth greater than 2.5 inches for **spring wheat or durum** will result in increased seedling stress and decreased emergence.

Use only high quality seed where **TRIFLURALIN 4 E.C.** is to be applied (avoid use of small seed with low starch reserves).

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

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

Do not fall apply in combination with any other preplant incorporated herbicide.

Soil characteristics and environmental conditions, which may contribute to crop seedling stress that may be accentuated by use of TRIFLURALIN 4 E.C., include:

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

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

Note: Do not apply on small grains where a dinitroaniline herbicide such as TRIFLURALIN 4 E.C. was applied at a rate recommended for row crops (oil seeds) during the previous growing season.

APPLICATION DIRECTIONS FOR SMALL GRAINS

Barley, Spring Seeded -- Spring Application Preplant Incorporated for Foxtail (Pigeongrass) Control (For Use in Minnesota, North Dakota, and South Dakota) Apply as a preplant incorporated treatment prior to planting spring seeded barley. **TRIFLURALIN 4 E.C.** may be applied to ground that has a manageable trash level or has been fallowed or pre-tilled. The first incorporation is required within 24 hours after application. The second incorporation is required prior to planting to destroy emerged weeds and to insure even distribution in the soil surface.

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

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

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

Precautions:
- Carefully read and follow "Special Precautions for Use of **TRIFLURALIN 4 E.C.** in Small Grains" before application.
- While use of this weed control practice may result in a stand reduction, slight stand reductions do not normally affect yield.

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

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

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0
Medium	1.5
Fine	1.5

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

Precautions: Use of this weed control practice may result in slight stand reduction. Follow the most severe grazing restrictions imposed either by the label for **TRIFLURALIN 4 E.C.** or by the USDA Acreage Conservation Reserve Program, whichever is longest. Consult the local ASCS office or other state agency to determine the period of USDA grazing restriction.

Winter Wheat -- Preplant Incorporated for Control of Cheatgrass and Other Annual Grasses and Broadleafs (For Use in Colorado, Idaho, Kansas, Montana, Nebraska, Oregon, Washington, and Wyoming)
Apply as a preplant incorporated treatment for control of downy brome (cheatgrass), annual ryegrass, annual bluegrass, pacific meadow foxtail (blackgrass), henbit, and fiddleneck (tarweed). 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 4 E.C.** This product may be applied from 3 weeks up to immediately before planting.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)

Coarse	1.5
Medium	1.5
Fine	2.0

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

Planting Directions: Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone of soil treated with **TRIFLURALIN 4 E.C.**

Precautions:
- Carefully read and follow "Special Precautions for Use of **TRIFLURALIN 4 E.C.** in Small Grains" before application.
- Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

Winter Wheat -- Post Plant Incorporated Treatment (For Use in Idaho, Oregon, and Washington)

Apply and incorporate after planting, but before emergence, to control the following weeds susceptible to **TRIFLURALIN 4 E.C.** in winter wheat: annual ryegrass, annual bluegrass, downy brome (cheatgrass), pacific meadow foxtail (blackgrass), fiddleneck (tarweed), and henbit.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0 - 1.5
Medium	1.5

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

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

Precautions:
- Carefully read and follow "Special Precautions for Use of **TRIFLURALIN 4 E.C.** in Small Grains" before application.
- Wheat seed in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.
- If less than 20 inches of rainfall plus irrigation was received between planting and harvest, refer to rotation crop restrictions before planting sorghum or oats.

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

TRIFLURALIN 4 E.C. may be applied and shallowly incorporated into fallow soil up to 4 months before planting wheat to control cheatgrass and certain annual grasses and broadleaf weeds. Apply

any time from May to September prior to fall planting of winter wheat. Wheat growth, development, and yield will not be adversely affected so long as the seed is placed below the zone of soil treated.

Broadleaf Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5
Medium	1.5
Fine	2.0

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

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

Precautions:
- Carefully read and follow "Special Precautions for Use of **TRIFLURALIN 4 E.C.** in Small Grains" before application.
- Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

Spring Wheat, Durum, and Barley – Postplant Incorporated for Foxtail (Pigeongrass) Control
Apply and incorporate after planting, but before emergence, to control foxtail (pigeongrass) in spring wheat, durum, and barley. **TRIFLURALIN 4 E.C.** may be tank mixed with Far-Go® to control wild oats. Refer to the label for Far-Go® for application rates, additional use directions, precautions, and limitations before use.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.0
Fine	1.5

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

Incorporation Directions: Incorporate using 2 passes with a flex-tine or diamond harrow operated at least 5 mph. The second incorporation pass should be in a different direction than the first. Set equipment to cut 1 to 1.5 inches deep and avoid disturbing seed. Application and first incorporation should be done in the same operation if possible. Both incorporations must be done within 24 hours.

Precautions:
- Carefully read and follow "Special Precautions for Use of **TRIFLURALIN 4 E.C.** in Small Grains" before application.
- Wheat seed in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

SOYBEANS

TRIFLURALIN 4 E.C. - Alone

Apply as a preplant soil incorporated treatment. This product may also be applied in the fall. See instructions for fall application under "Application Timing" in the "General Information" section of this label.

Broadcast Application Rates/Acre:

	TRIFLURALIN 4 E.C.	
Soil Texture	Spring Application (pints)	Fall Application* (pints)
Coarse	1.0	2.0
Medium	1.5	2.0
Fine	2.0	2.5

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

* Fall Application Rates for States Including: Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri (Bootheel), North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

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

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

Chemigation

TRIFLURALIN 4 E.C. may be applied through properly equipped chemigation systems for weed control in soybeans. Refer to "Application by Chemigation" in the "General Information" section of this label for use directions for chemigation. Do not apply through any irrigation system unless these directions are carefully followed.

Apply in sprinkler irrigation equal to 0.5 to 1 inch of water. Planting and application should occur as soon as possible after the last tillage operation. **TRIFLURALIN 4 E.C.** must be applied within 2 days after planting and prior to crop emergence. This product does not control established weeds. Soil incorporation is not required when applied through chemigation systems.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5 - 2.0
Medium	1.5 - 2.0
Fine	2.0 - 2.5

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

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

SPECIAL USE PROGRAMS

Fall Panicum Control
Apply as a preplant incorporated treatment at a broadcast rate of 2.0 pt./acre on coarse and medium soils.

Pigweed and Seedling Johnsongrass Control
Apply as a preplant incorporated treatment.

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

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0 - 1.5
Medium	1.5 - 2.0
Fine	2.0 - 2.5

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

Additional Weed and Grass Control (Gulf Coast Counties of Texas)
Apply as a preplant incorporated treatment up to 2 weeks before planting.

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

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5
Medium	2.0
Fine	3.0

Itchgrass (Raoulgrass) Suppression
Apply as a preplant incorporated treatment or at layby.

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

	Broadcast Application Rates/Acre: TRIFLURALIN 4 E.C.	
Soil Texture	Preplant Incorporated	Layby Application

	(pints)	(pints)
Medium	3.0	1.0
Fine	3.0	2.0

Charcoal Soils in Arkansas, Louisiana, and Mississippi

Newly cleared land often contains high organic matter (5-10%) and charcoal from burning debris. Charcoal and organic matter tend to bind **TRIFLURALIN 4 E.C.** and reduce weed control activity. Under these conditions, higher rates are necessary for weed control. Increased rates, however, can cause crop injury if charcoal or organic matter is not present to bind some of the **TRIFLURALIN 4 E.C.** In the burn row a high level of charcoal is usually present. Consequently, poor weed control may result, even if an increased rate is used. Follow recommended application and incorporation procedures.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5 - 2.5
Medium	2.5
Fine	3.0

Red Rice Control in Arkansas, Louisiana, Mississippi, and Texas Only

Suppression or partial control of red rice can be obtained from a 2-year treatment program which consists of a double rate application the first year followed by application in the second year at normal rates indicated for soil texture, organic matter, or charcoal content. Apply and incorporate in the spring before planting. Follow recommended soil preparation and incorporation procedures for **TRIFLURALIN 4 E.C.**

Broadcast Application Rates/Acre:

	TRIFLURALIN 4 E.C.	
Soil Texture	Application Year 1 (pints)	Application Year 2 (pints)
Coarse	2.0	1.0
Medium	3.0	1.5
Fine	4.0	2.0
Coarse Soils with 2-5% organic matter	3.0	1.5
Soils with 5-10% organic matter	4.0	2.0 - 2.5

In Arkansas, Louisiana, and Mississippi, if a combination of high soil organic matter (5-10%) and charcoal are present, apply **TRIFLURALIN 4 E.C.** at the following broadcast rates:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.5 - 2.5
Medium	2.5
Fine	3.0

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

Precaution: Crop Rotation: The recommendation for red rice control in soybeans is a 2-year program. In the first year following a double rate application, plant only soybeans. During the second

year, after applying at the normal rate indicated for soil texture and charcoal level, plant only those crops for which **TRIFLURALIN 4 E.C.** is registered as a preplant treatment or crop injury may result. Rice may be planted during the third year following application of normal use rates in year two.

Rhizome Johnsongrass Control in Eastern United States and the State of Texas
Rhizome johnsongrass control requires double rate application for two consecutive years. Commercially acceptable control cannot be obtained with only one year of double rate use of **TRIFLURALIN 4 E.C.** Carefully follow the special use directions which follow.

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	2.0
Medium	3.0
Fine	4.0

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

Spring Application: Apply any time before planting in the spring for two consecutive years.

Fall Application: Apply after October 15 for two consecutive years.

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

Soil Texture	TRIFLURALIN 4 E.C. Spring + Fall (pints)
Coarse	1.0 + 1.0
Medium	1.5 + 1.5
Fine	2.0 + 2.0
Coarse Soils with 2-5% organic matter	1.5 + 1.5
Soils with 5-10% organic matter	2.0 + 2.0

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

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

Precautions: In the season following a double rate treatment, plant only rice and those crops to which **TRIFLURALIN 4 E.C.** can be applied as a preplant treatment or crop injury may result.

Rhizome Johnsongrass Control with TRIFLURALIN 4 E.C. plus Sencor® or TRIFLURALIN 4 E.C. plus Lexone® Tank Mix

Rhizome johnsongrass control with **TRIFLURALIN 4 E.C.** plus Sencor® or Lexone® requires application for two consecutive years. Apply product plus Sencor® or Lexone® as a preplant incorporated treatment up to two weeks before planting. This tank mix controls weeds susceptible to this product plus additional weeds listed on the label for Sencor® or Lexone®.

Application Rates: See rate recommendations above for "Rhizome Johnsongrass Control in Eastern United States and the State of Texas". Use application rates for soybeans in the label for Sencor® or Lexone®.

Precaution: Refer to the label for Sencor® or Lexone® for application rates, additional use directions, precautions, and limitations prior to applying **TRIFLURALIN 4 E.C.** plus Sencor® or Lexone® tank mix. Carefully follow all use precautions on the labels for Sencor® or Lexone®.

***W*ild Cane (Shattercane) Control**

Follow recommended soil preparation and application procedures. Wild cane (shattercane) can germinate throughout the growing season and from greater soil depth than most other weed seeds. Commercially acceptable control of wild cane can be obtained by using increased rates.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
Coarse	1.0
Medium	2.0
Fine	2.5

Incorporation: Deep incorporation with a tandem disc is essential for good wild cane control. Incorporate thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary with the second in a different direction than the first.

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

TANK MIX, OVERLAY, AND POSTEMERGENCE RECOMMENDATIONS

TRIFLURALIN 4 E.C. in Tank Mix

This product may be tank mixed with Sencor®, Lexone®, Canopy®, Lasso®, or Dual® and applied as a preplant soil incorporated treatment to control additional weeds in soybeans. Refer to the tank mix product label for weeds controlled, application rates, additional use directions, precautions, and limitations before use.

TRIFLURALIN 4 E.C. plus Command® (Reduced Rate) and TRIFLURALIN 4 E.C. plus Command® and Lexone® or TRIFLURALIN 4 E.C. plus Command® and Sencor® Tank Mixes (Not For Use in California)

Product may be tank mixed with Command®, Command® plus Lexone®, or Command® plus Sencor®. Apply the tank mix as a preplant incorporated treatment up to 3 weeks before planting.

Note: The use of an agriculturally approved drift reducing additive is required at finished spray volumes of 10-15 gal./acre. Use nozzles suitable for broadcast boom application of herbicides. Coarse sprays are less likely to drift out of the target area than fine sprays. Application to overly moist or wet soils will increase the potential for off-site movement of Command® vapors and may result in poor soil incorporation and unsatisfactory weed control. These directions must be followed to reduce the potential for off-site movement of Command® vapors and potential injury to desirable vegetation including adjacent crops, trees, and ornamentals.

Incorporation: Tank mixes containing Command® must be incorporated immediately after application. Follow other soil preparation, application, and incorporation procedures for TRIFLURALIN E.C.

TRIFLURALIN 4 E.C. plus Command®
Use the tank mix to control velvetleaf and weeds susceptible to **TRIFLURALIN 4 E.C.**

Control of jimsonweed, annual morningglory, prickly sida, common ragweed, smartweed, and venice mallow 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.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)	Command® 4 E.C. (pints)
Coarse	1.0	0.75
Medium	1.5	1.12
Fine	2.0	1.5

TRIFLURALIN 4 E.C. plus Command® and Lexone® or TRIFLURALIN 4 E.C. plus Command® and Sencor®
Use the tank mix to control weeds susceptible to **TRIFLURALIN 4 E.C.** plus additional weeds listed on the labels for Command® and Lexone® or Sencor®.

TRIFLURALIN 4 E.C. plus Command® and Lexone® or Sencor® also provides partial control or suppression of cocklebur, annual morningglory, and giant ragweed. Control of these weeds may be erratic, ranging from poor to excellent depending upon soil temperature, time of weed seed germination, depth of weed seed in the soil, and the amount and timing of soil moisture. Control may be improved with timely cultivation.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)	Command® 4 E.C. (pints)	Lexone® 4L or Sencor® 4 (pints)	Lexone® or Sencor® DF (pounds)
Coarse	1.0	0.5	0.33 - 0.5*	0.25 - 0.33*
Medium	1.5	0.75	0.5 - 0.75	0.33 - 0.5
Fine	2.0	1.12	0.75 - 1.0	0.5 - 0.67

* Use the higher rate range in areas where weed populations are dense, for control of venice mallow and wild mustard, and for best control of common cocklebur, annual morningglory, and giant ragweed.

Precautions:

- Off-site movement of spray drift or vapors of Command® can cause foliar whitening or yellowing of adjacent crops, trees, and ornamental plants which is usually temporary in nature but can result in permanent injury or death of the plants if the exposure is excessive. Prior to making application of this product, read and strictly follow all precautions rotational crop guidelines and application instructions on the label for Command®.
- Refer to the labels for Lexone® and Sencor® for additional use directions, precautions, and limitations before applying this product plus Lexone® or plus Sencor® tank mix.

Preplant Incorporated Followed by Overlay Treatments (Not For Use in California)
Apply as a preplant soil incorporated treatment. Additional weeds tolerant to **TRIFLURALIN 4 E.C.** may be controlled using overlay preemergence applications of Canopy®, Dual®, Lasso®, Lexone®, Lorox®, Lorox® plus, Preview, Pursuit®*, Scepter®**, or Sencor® or other products registered for preemergence use on soybeans, unless use following this product is specifically prohibited by the manufacturer. Consult the manufacturer's labels for application rates, additional weeds controlled, additional use directions, and precautions before use.

*Use of Pursuit® is limited to certain states. Use Pursuit® as an overlay treatment following **TRIFLURALIN 4 E.C.** only in states specified on the label for Pursuit®.

Use of Scepter® is limited to certain states. Do not use the overlay preemergence application with Scepter® following a preplant incorporated treatment with **TRIFLURALIN 4 E.C. in the "Northern Use Area" as defined by the label for Scepter®.

Preplant Incorporated Followed by Postemergence Treatments (Not for Use in California)
Apply as a preplant soil incorporated treatment. Additional weeds tolerant to **TRIFLURALIN 4 E.C.** may be controlled using postemergence applications of Basagran®, Blazer®, Classic®, Cobra®, Galaxy®, Pinnacle®, Pursuit®*, Reflex®, Scepter®**, Storm®, or other products registered for postemergence use on soybeans, unless use following this product is prohibited by the manufacturer. Consult the manufacturer's labels for application rates, additional weeds controlled, additional use directions, precautions, and limitations before use.

*Use of Pursuit® is limited to certain states. Use Pursuit® as a postemergence treatment following **TRIFLURALIN 4 E.C.** only in states specified in the label for Pursuit®.

Use of Scepter® is limited to certain states. Do not use Scepter® as a postemergence application following a preplant incorporation treatment with **TRIFLURALIN 4 E.C. in the "Northern Use Area" as defined by the label for Scepter®.

SUGAR BEETS

TRIFLURALIN 4 E.C. - Alone
Apply as an over-the-top spray and incorporate. Apply from the time the first true leaves have formed until plants are 6 inches tall.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)

Coarse	1.0
Medium	1.25 - 1.5
Fine	1.25 - 1.5

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

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

Incorporation with a Tine-Tooth Harrow (For Use in California, Colorado, Idaho, Nebraska, Oregon, Texas, Utah, Washington, and Wyoming)
A tine-tooth harrow (Flextine or Melroe) can be used to incorporate in sugar beets. Incorporation with tine-tooth harrow requires 2 passes in opposite directions over the same set of rows. Set the harrow to cut 1 to 2 inches deep and operate at 3 to 6 mph. Set incorporation equipment carefully to avoid damage to sugar beet taproot. Use application procedures and broadcast application rates recommended in preceding section.

TRIFLURALIN 4 E.C. plus Eptam® Tank Mix
Product may be tank mixed with Eptam® and applied as an over-the-top spray followed by incorporation to control additional weeds. Use application rates recommended for sugar beets "**TRIFLURALIN 4 E.C.** - Alone", above. Refer to the label for Eptam® for weeds controlled, application rates, additional use directions, precautions, and limitations before use.

SUGARCANE

TRIFLURALIN 4 E.C. - Alone
Apply and incorporate twice a year. Make the first application in the fall on firmly packed beds immediately after the seed pieces are planted. Make the second application in the spring before or shortly after the cane emerges. Loosen rain-packed beds 2-3 inches deep before the spring application. Take care that incorporation equipment does not damage the seed pieces or emerging shoots.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
All Textures	2.0 - 4.0*

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

Postplant Application for Control of Most Annual Grasses, Including Guineagrass (For Use in Hawaii)
Surface apply after planting (for plant cane) or after harvesting (for ratoon cane). For best results in plant cane, the soil surface should be smooth and finely tilled. Apply as soon as possible after tillage and planting before germination and emergence of grass weeds. For optimum efficacy in ratoon cane, minimize surface residue from previous crop before applying. Apply just before anticipated rainfall in non-irrigated and furrow-irrigated sugarcane. Irrigate as soon as possible after applying in drip-irrigated or sprinkle-irrigated sugarcane to activate TRIFLURALIN E.C.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
All Textures	6.0 - 8.0

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
All Textures	2.0 - 4.0*

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

Itchgrass (Raoulgrass) Control (For Use in Louisiana)
Apply and incorporate on plant or ratoon cane. Follow use directions in preceding section for layby application.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
All Textures	2.0 - 4.0

SUNFLOWER

TRIFLURALIN 4 E.C. - Alone
Apply and incorporate in the spring before planting or in the fall. See instructions for fall application under "Application Timing" in the "General Information" section of this label.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

TRIFLURALIN 4 E.C. plus Eptam® Tank Mix
Product may be tank mixed with Eptam® and applied as a preplant incorporated treatment to control additional weeds in sunflowers in Minnesota, North Dakota, and South Dakota. Refer to the label for Eptam® for application rates, additional use directions, precautions, and limitations before use.

TOMATO

Apply to direct-seeded tomato as a directed spray between rows and beneath plants and incorporate at the time of blocking or thinning. For transplant tomato, apply and incorporate before transplanting. Do not apply after transplanting.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

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

Application to New Plantings of Citrus, Fruit and Nut Crops

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0
Medium	1.25 - 1.5
Fine	1.5 - 2.0

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

Application to New Plantings of Vineyards

For new plantings of vineyards, apply and incorporate before planting.

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
Coarse	1.0 - 1.5
Medium	1.5 - 3.0
Fine	3.0 - 4.0

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

Note: Do not use more than 2.0 pt./acre on heat-treated grape rootings.

Application to Established Non-bearing and Bearing Citrus, Fruit and Nut Crops and Vineyards

TRIFLURALIN 4 E.C. may be applied in established non-bearing and bearing vineyards and plantings of almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, plum, prune, tangelo, tangerine, and walnut trees. In established plantings, apply as a directed spray to the soil

and use incorporation methods not injurious to the crop. Do not apply to vineyards within 60 days of harvest.

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
All Textures	2.0 - 4.0

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

Rhizome Johnsongrass Control - Special Two-year Use Program
Product may be applied for two consecutive years in a special use program to control rhizome johnsongrass in established vineyards and plantings of almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine, and walnut trees. Do not apply to vineyards within 60 days of harvest.

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

Broadcast Application Rates/Acre:	
Soil Texture	**TRIFLURALIN 4 E.C.** (pints)
All Textures	4.0

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

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

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

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

Soil Preparation: Destroy existing weeds with soil tillage before applying. Thorough tillage is necessary to prevent trash from interfering with operation of the spray blade.

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

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

Broadcast Application Rates/Acre:

Soil Texture	TRIFLURALIN 4 E.C. (pints)
All Textures	4.0

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

CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of his product shall be limited to, at Helena Chemical Company's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

© Copyright - Helena Chemical Company, 2001.

Blendex® VHC and Induce® pH are registered trademarks of Helena Chemical Company.
Cobra® is a registered trademark of Valent USA Corporation.
Command® is a registered trademark of FMC Corporation.
Eptam®, Caparol®, Cotoran®, Zorial®, Dual®, and Reflex® are registered trademarks of Syngenta.
Far-Go® and Lasso® are registered trademarks of Monsanto.

Lexone®, Karmex®, Canopy®, Lorox®, Classic®, and Pinnacle® are registered trademarks of E.I. duPont de Nemours & Co.
Pursuit®, Scepter®, Basagran®, Blazer®, Galaxy®, and Storm® are registered trademarks of BASF Corporation.
Sencor® is a registered trademark of Bayer Corporation.