

PM 23 46193-13 10/44

US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (75-767) WASHINGTON, DC 20460 NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> REGISTRATION <input type="checkbox"/> REREGISTRATION <i>(Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)</i>	EPA REGISTRATION NO. 46193-13	DATE OF ISSUANCE 9 FEB 1993
	TERM OF ISSUANCE Conditional	
	NAME OF PESTICIDE PRODUCT Trifluralin DF	

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Retzloff Delta Co.
 10260 Westheimer, Ste. 380
 Houston, TX 77042

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 conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

a. Add the phrase "EPA Registration No. 46193-13."

b. Add the headings "SUGAR BEETS" and "SUNFLOWER" to the beginning of the application directions for these two crops.

c. The Notice present on the last page of the label refers to notifying Terra within 21 days after planting if acceptable control does not occur. Terra should be changed to Retzloff in this statement.

3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

20/4/4

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy is enclosed for your records.

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosures

CONCURRENCES

SYMBOL	H7505C							
SURNAME	D. KENNY							
DATE	2/8/99							

30744

ACCEPTED
with COMMENTS
to EPA Letter Dated
FEB 1993

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
46193-13

TRIFLURALIN DF

A water dispersible granule for the preemergence control
of annual grasses and broadleaf weeds

ACTIVE INGREDIENT

Trifluralin (α, α, α -tri fluoro-2,6-dinitro-N, N-dipropyl-p-toluidine,	60.0%
INERT INGREDIENTS.....	40.0%
	TOTAL 100.0%

STOP - READ LABEL BEFORE USING.

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este
producto hasta que la etiqueta le haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

- IF IN EYES: Hold eyes open and flush with steady gentle stream of water for 15 minutes. Call a physician.
- IF SWALLOWED: Promptly drink a large quantity of milk, egg white, gelatin solution, or if not available large quantities of water. Avoid alcohol. Call a physician. Not to physician - Probable mucosal damage may contraindicate the use of gastric lavage.
- IF INHALED: Remove victim to fresh air.
- IF ON SKIN: Wash with plenty of soap and water.

See Page 3 for additional PRECAUTIONARY STATEMENTS.

EPA Reg. No. PENDING

EPA Est. No. 46193-GT-04

Manufactured For
RETZLOFF DELTA CO.
10260 Westheimer, Suite 380
Houston, Texas 77042

NET CONTENTS
16.66 LBS.

BEST AVAILABLE COPY

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 (Winter, Spring, Durum)

50444

PRECAUTIONARY STATEMENTS

DANGER

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes severe eye irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. Avoid breathing spray mist. When handling or applying, wear protective clothing such as goggles or face shield and rubber gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS

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

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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 through any type of irrigation system.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

STORAGE

Store in a cool, dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage, scrape up spillage. If spillage is not suitable for use, dispose of in accordance with information given under DISPOSAL. Repackage and relabel useable product in a sound container. In case of fire or other emergency, report at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SPECIAL PRECAUTIONS

Applied according to directions and under normal growing conditions, Trifluralin DF will not harm the treated crop. Overapplication may result in crop injury or a soil residue. Uneven application or improper soil 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 from Trifluralin DF. Under these conditions, delayed crop development or reduced yields may result.

In Arizona, Colorado, California, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming, sugarbeets, red beets, or spinach should not be planted for 12 months after a spring application or for 14 months after a fall application of Trifluralin DF. Plow the land to a depth of 12 inches prior to planting sugar beets to prevent the possibility of crop injury. Sorghum (milo), proso millet, corn, oats, and annual or perennial grass crops or grass mixtures should not be planted for 14 months after a spring application or for 16 months after a fall application to avoid crop injury. If land has not been irrigated, do not plant any of these crops for 18 months after a spring application or 20 months after a fall application.

In those portions of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas where at least 20 inches of irrigation and/or rainfall (total) was used to produce the crop, sorghum, oats and annual or perennial grass crops or grass mixtures should not be planted for 12 months after an application of Trifluralin DF.

If less than 20 inches of total water was used to produce the crop, do not plant sorghum, proso millet, oats and annual or perennial grass crops or grass mixtures for 18 months after an application of Trifluralin DF. Cool, wet weather conditions during the early stage of growth may increase the possibility of injury to sorghum.

In all other areas receiving greater than 20" rainfall per year, moldboard plow before planting sugar beets where a spring application of trifluralin was made the previous season.

Vegetable crops other than those listed on this label should not be planted within 5 months following the application of Trifluralin DF.

Do not use Trifluralin DF on any crop grown in Pecos county or Reeves county, Texas or the state of Montana.

GENERAL INFORMATION

TRIFLURALIN DF is a pre-emergence herbicide which is incorporated into the soil to provide long-lasting control of annual grasses and broadleaf weeds. Trifluralin DF controls weeds by killing their seeds as they germinate. It does not control established weeds. Incorporation assures effective control regardless of weather conditions and permits shallow cultivation, rotary hoeing and hand hoeing without reducing its weed control activity.

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WEEDS AND GRASSES CONTROLLED

GRASSES

Annual bluegrass

Barnyardgrass
(Watergrass)

Brachiaria
(Signal grass)

Bromegrass
(Cheatgrass,
Downy brome)

Cheat (Chess)

Crabgrass (Large
crabgrass, Smooth
crabgrass)

Fall panicum

Foxtails (Bottlegrass,
Bristlegrass,
Giant foxtail,
Green Foxtial,
Pigeongrass,
Robust foxtail,
Yellow foxtail)

Goosegrass (Silver
Crabgrass,
Silvergrass,
Wiregrass,
Yardgrass)

Guineagrass

Johnsongrass
(Seedling and
Rhizome)

Junglerice

Raoulgrass
(Itchgrass)

Sandbur (Burggrass)

Sprangletop

Stinkgrass
(Lovegrass)

Texas panicum
(Buffalograss,
Coloradograss)

Wild cane
(Shattercane)

Wooly cupgrass

Poa annua

Echinochloa sp.

Brachiaria sp.

Bromus tectorum
Bromus secalinus

Digitaria sp.
Panicum Dichotom.

Setaria sp.

Eleusine indica
Panicum maximum

Sorghum halapense
Echinochloa col.

Rottoboellia exalt.
Cenchrus incertus
Leptochloa filiflor

Eragrostis cilian.

Panicum texanum

Sorghum bicolor
Erichloa villosa

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BROADLEAF WEEDS

Carpetweed	Mollugo verticillate
Chickweed	Stellaria media
Field Bindweed	Convolvulus arvensis
Florida pusley (Florida purslane, Mexican clover, Pusley)	Richardia scabra
Goosefoot	Chenopodium hybridum
Henbit (fall application only)	Lamium amplexicale
Knotweed	Polygonum aviculare
Kochia (Fireweed, Mexican fireweed)	Kochia scoparia
Lambsquarters	Chenopodium album
Pigweed (Carelessweed, Prostrate pigweed, Redroot, Rough pigweed, Spiny pigweed)	Amaranthus sp.
Puncturevine (Caltrop, Goathead) (Western U.S. only)	Tribulus terrestris
Purslane	Portulaca oleracea
Russian thistle (Tumbleweed)	Salsola kali
Stinging nettle (Nettle)	Urtica dioica

TRIFLURALIN DF alone will not control certain resistant weeds such as Cocklebur, Jimsonweed, Ragweed, Velvetleaf, and Nutsedge.

TANK MIXES

TRIFLURALIN DF, in mixture with other products, will control the following additional weeds:

TRIFLURALIN DF/SENCOR OR LEXONE TANK-MIX
(see Soybean section for instructions)

In soybean:

Jimsonweed	Datura stramonium
Mallow, Venice (Flower-of-an-hour)	Hibiscum trionum
Mustard, wild (Charlock, Field Mustard)	Brassica Kaber
Prickly sida (Teaweed, Spiny sida)	Sida spinosa
Ragweed, common	Ambrosia artemisiifolia
Sesbania, hemp (Coffeebean, Indigo)	Sesbania exaltata
Smartweed (Pennsylvania)	Polygonum pensylvanicum
Velvetleaf (Butterprint, Buttonweed, Cottonweed, Elephant's ear, Indian Mallow, Piermarker)	Abutilon theophrasti

Control of Cocklebur, Morningglory and Giant Ragweed may be erratic ranging from poor to excellent depending upon soil temperature, time of weed germination, depth of weed seed in the soil and amount and timing of soil moisture. Control may be improved with timely cultivation. Where cocklebur is a serious problem, an overlay of Sencor or Lexone may be preferred to the Trifluralin/Sencor or Trifluralin/Lexone tank mix.

TRIFLURALIN DF/CANOPY TANK-MIX (Do not use in California)
(See Soybean section for instructions)

In soybean:

Controlled

- Cocklebur, common
- Florida beggarweed
- Hemp sesbania
- Hophornbeam
- Copperleaf
- Jimsonweed
- Morningglory
 - (Entireleaf)
 - (Ivyleaf)
 - (Pitted)
 - (Smallflower)
 - (Tall)

- Prickly sida
(Teaweed)
- Ragweed
(Common)
- (Giant)
- Sicklepod
- Smartweed
- Spotted spurge
- Sunflower
- Velvetleaf

Partially Controlled

- Purple nutsedge
- Yellow nutsedge

Large seeded weeds, germinating deep in the soil, such as morningglory, sicklepod, cocklebur, and giant ragweed or weeds with subsequent flushes may require a cultivation or an application of a postemergence herbicide for season-long control.

TRIFLURALIN DF/PREVIEW TANK-MIX (Do not use in California)
(See Soybean section for instructions)

In soybean:

Controlled

- Cocklebur, common
- Hophornbeam
- copperleaf
- Jimsonweed
- Mustards
- Pigweed
 - (Palmer amaranth)
 - (Smooth)
 - (Tall waterhemp)

- Prickly sida
(Teaweed)
- Ragweed, common
- Smartweeds,
Annual
- Spotted spurge
- Sunflower

Partially Controlled

- Burcucumber
- Eastern Black
- Morningglory
- (Tall)
- (Ivyleaf)
- (Pitted)
- (Entireleaf)

- Nutsedge species
- Ragweed, giant

Large seeded weeds, germinating deep in the soil, such as morningglory, sicklepod, cocklebur, and giant ragweed or weeds with subsequent flushes may require a cultivation or an application of a postemergence herbicide for season-long control.

TRIFLURALIN DF/EPTAM TANK-MIX
 (See Dry bean and potato section for instructions)

In dry bean and potato:

- Henbit
- Nightshade, black
- Nightshade, hairy
- Nutsedge
- Oat, wild
- Ragweed, common
- Smartweed, pennsylvania
- Velvetleaf (Buttonweed)

- Lamium amplexicale
- Solanum nigrum
- Solanum sarrachoides
- Syperus sp.
- Avena fatua
- Ambrosia artemisiifolia
- Polygonum pensylvanicum
- Abutilon theophrasti

TRIFLURALIN DF/AMIBEN TANK-MIX AND OVERLAY
 (See Soybean and Sunflower sections for instructions)

In soybean and sunflower:

- Coffeeweed
- Mustard, wild
- Nightshade, black
- Prickly sida (Teaweed)
- Ragweed, common
- Spurge, annual
- Smartweed, pennsylvania
- Stinkgrass
- Velvetleaf (Buttonweed)

- Sesbania exaltata
- Brassica kaber
- Solanum nigrum
- Sida spinosa
- Ambrosia artemisiifolia
- Euphorbia maculata
- Polygonum pensylvanicum
- Eragrostis cilianensis
- Abutilon theophrasti

TRIFLURALIN DF/CAPAROL TANK-MIX
(See Cotton section for instructions)

In cotton:

- | | |
|------------------------|-------------------------|
| Smartweed | Polygonum pensylvanicum |
| Prickly sida (Teaweed) | Sida spinosa |
| Annual morningglory | Ipomoea sp. |
| Ragweed, common | Ambrosia artemisiifolia |
| Groundcherry, annual | Physalis sp. |
| Mustard, wild | Brassica kaber |
| Malva | Malva sp. |
| Wild oat | Avena fatua |

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

TRIFLURALIN DF/COTORAN TANK-MIX OR OVERLAY
(See Cotton section for instructions)

In cotton:

- | | |
|-------------------------|-------------------------|
| Cocklebur | Xanthium strumarium |
| Groundcherry, annual | Physalis sp. |
| Jimsonweed | Datura stramonium |
| Morningglory, annual | Ipomoea sp. |
| Prickly sida | Sida spinosa |
| Ragweed | Ambrosia artemisiifolia |
| Ryegrass | Lolium sp. |
| Sesbania | Sesbania exaltata |
| Sicklepod | Cassia obtusifolia |
| Smartweed | Polygonum pensylvanicum |
| umbleweed | Amaranthus albus |
| Velvetleaf (Buttonweed) | Abutilon theophrasti |

TRIFLURALIN DF PREPLANT FOLLOWED BY KARMEX OVERLAY
(See Cotton section for instructions)

In cotton:

- | | |
|-----------------------|--------------------------|
| Dogfennel | Eupatorium capillifolium |
| Groundcherry, annual | Physalis sp. |
| Morn. ngglory, annual | Ipomoea sp. |
| Pennycress | Thlaspi sp. |
| Ragweed | Ambrosia artemisiifolia |
| Sheperdspurse | Capsella bursa pastoris |
| Velvetgrass | Hulcus lanatus |
| Wild lettuce | Lactuca sp. |
| Wild mustar | Brassica kaber |

TRIFLURALIN DF/VERNAM TANK-MIX
(See Soybean and Peanut sections for instructions)

In soybean and peanut:

- Morningglory, annual
- Coffeeweed
- Purple nutsedge
- Velvetleaf
- Yellow nutsedge

- Ipomoea sp.
- Sesbania exaltata
- Cyperus rotundus
- Abutilon theophrasti
- Cyperus esculentus

SOIL PREPARATION

A good soil preparation is essential for best results. Destroy existing weeds before herbicide application. Chop and thoroughly mix crop residue into the soil to a depth of at least 4 to 6 inches by deep plowing or discing before application. Use machinery that breaks up large clods.

Before application determine soil texture in order to apply the correct rate. Rates given in this booklet refer to the following soil texture groups:

- Coarse soils: sand, loamy sand, sandy loam
- Medium soils: loam, silty clay loam, silt loam, silt, sandy clay loam
- Fine 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 predominatly sand or silt, they are usually classified as medium textured soils. If they are predominantly clay, they are usually classified as fine textured soils.

MIXING AND APPLICATION DIRECTIONS

Trifluralin DF is a water dispersible granule to be mixed with water or most liquid fertilizers and applied as a spray before or in the same operation as soil incorporation.

SCREEN MESH SIZE RECOMMENDATION: Trifluralin DF should be used with a 50 mesh size screen or coarser. A smaller screen size may result in particle build-up on screen and pressure loss to spray tips.

GROUND APPLICATION: Apply in 5 to 40 gallons of water/acre (broadcast basis) using any properly calibrated low-pressure sprayer that will uniformly apply the spray. Pour the recommended amount of product into the spray tank during the filling operation and mix thoroughly before spraying. As the amount of water decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily. Do not apply the herbicide to soils which are wet or in poor condition or to soils which are subject to prolonged periods of flooding.

AERIAL APPLICATION: For best results apply to a dry soil surface at a spray volume of from 5 to 10 gallons/acre. Adjust pump pressure, nozzle arrangements, flying speed and height to provide uniform application. Use markers or flagmen to assure proper application spray widths. Do not apply when the wind is blowing at a velocity of 5 mph or greater.

INCORPORATION DIRECTIONS

BEFORE PLANTING: For best results the herbicide must be incorporated within 24 hours after application. A second incorporation is required at any time prior to planting using the equipment in a different direction from the first. Incorporation should place the product into the top 2 or 3 inches of the final seedbed. Variable weed control may result from delayed incorporation if the herbicide is applied to a wet, warm soil surface or if the wind velocity is 10 mph or higher.

AFTER PLANTING: When incorporation after planting (check crops approved for incorporation after planting), use P.T.O.-driven equipment or Rolling Cultivators and adjust to till the soil over the seed or throw treated soil toward the crop. Avoid disturbing the seed or mechanically damaging the crop.

IN BEDDED CULTURE: For effective weed control in bedded culture the product should be incorporated into the top 2 to 3 inches of the final seedbed. When applying prior to bedding, apply and incorporate one time. The bedding operation serves as the second incorporation. When applying after bedding, knock off beds to planting height before application and incorporation on bedded ground. Avoid removal of treated soil from the seedbed before or during the planting operation. This will expose untreated soil and allow weeds to germinate in the drill row.

EQUIPMENT: For incorporation use machinery which pulverizes large clods and mix the herbicide thoroughly with the soil. Thorough incorporation may be achieved with the following: Disc, set to cut 4 to 6 inches deep and operated in two different directions at 4 to 6 mph; Field Cultivator, set to cut 3 to 4 inches deep and operated at 5 mph or more; Rolling Cultivator, set to cut 2 to 4 inches deep and operated two times at 6 to 8 mph (adequate for use on coarse and medium textured soils only); Bed Conditioner, set to cut 2 to 4 inches deep and operated one time at 4 to 6 mph (adequate for use on coarse and medium textured soils only); Mulch Treader and other similar disc-type implements, set to cut 3 to 4 inches deep and operated at 5 to 8 mph in two different directions; P.T.O.-driven equipment (tillers, cultivators, hoes), set to cut 2 to 3 inches deep with rotors spaced to provide a clean sweep of the soil and operated one time (they should not be operated at a speed greater than 4 mph).

APPLICATION WITH LIQUID FERTILIZERS

Trifluralin DF may be mixed with most liquid fertilizer materials. The combination of Trifluralin DF with solutions and suspension-type fertilizers provides weed and grass control equal to the same rates of Trifluralin DF applied in water. Follow Trifluralin DF label recommendations regarding rates per acre, crops, incorporation directions, special instructions, cautions and special precautions.

Individual state regulations relating to liquid fertilizer mixing, registration, labeling and applications are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

COMPATIBILITY TESTING: Trifluralin DF alone or in a tank mixture with dry flowables, wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) may not combine properly with some fluid fertilizer materials. Small quantities should always be tested before full-scale mixing. This will determine whether a compatibility agent is needed, and which agent does the best job. There are many surfactants on the market which were not designed for use with liquid fertilizers. Use the following test to select the correct agent for your mixture.

1. Put 1 pint of the liquid fertilizer in a quart jar.
2. Add 1 to 4 teaspoon(s) of the dry flowable, WP, AS, F or L formulation (depending on the recommended rate per acre) to the liquid fertilizer. Close jar and agitate until the materials are dispersed evenly in the 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, add 3 to 4 teaspoons of Trifluralin DF to the jar and shake well. Add solution herbicides to the mixture last and agitate. Observe the jar for about 10 minutes. If the materials rise to the surface and form a thick layer which will not redisperse when agitated, a compatibility agent is needed. If the mixture is easily redispersed to its original state with slight agitation, no agent is needed but good agitation must be provided in the fertilizer spray tank.
4. If the need for a compatibility agent is indicated: Use a clean quart jar; start at Step 1 above. Add 1/2 teaspoon of the compatibility agent to the liquid fertilizer; mix well; then repeat Steps 2 and 3.

Riverside Combine has been thoroughly tested and approved as an effective compatibility agent which will enable the mixture to remain uniform with little or no separating for one half hour or longer. If slight separation does occur, 2 to 3 inversions of the jar should give a uniform remix. If curds form which will not redisperse, more Riverside Combine or another agent should be tried.

Use a clean jar for each test. The compatible mixture will have a uniform appearance and will be relatively easy to keep mixed with gently agitation of the jar.

LIQUID FERTILIZER MIXING INSTRUCTIONS: Water dispersible granules, such as Trifluralin DF, can be mixed with liquid fertilizers. In all cases, continuous agitation is required to prevent the Trifluralin DF from forming non-dispersible clumps.

When used with a high potash or heavy clay suspension fertilizer, Trifluralin DF should be added through an inductor system if available. When necessary, a compatibility agent can be used to enhance dispersion (see COMPATIBILITY TESTING). The use of compatibility agents is especially important when tank mixing water dispersible granules with dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) in liquid fertilizer. If the dispersion is not uniform and the Trifluralin DF rises to the surface of the fertilizer, the Trifluralin DF may combine with the wettable powder, flowable, or suspension to form lumps which are difficult to redisperse. Any one of a number of compatibility agents is helpful in causing water dispersible granules to form dispersed mixtures with liquid fertilizers. These compatibility agents can be used at rates as low as 1-1/2 to 2 pints per ton of liquid fertilizer and should be mixed well with the fertilizer before adding the water dispersible granules. Read the label on the compatibility agent and follow the directions.

Riverside Combine and other phosphate ester-type surfactants are designed to be used with liquid fertilizers. They usually do not work as compatibility agents in tank mixtures in plain water.

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

INCORPORATION: Follow normal Trifluralin DF incorporation procedures.

FERTILIZER IMPREGNATION

Trifluralin DF may be applied when coated on or impregnated in dry granular fertilizer for preplant incorporated weed control. All recommendations, cautions and special precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling. Also, follow the precautions on the label of any other product mixed with Trifluralin DF.

GENERAL BLENDING DIRECTIONS: Trifluralin DF may be coated on or impregnated in dry bulk fertilizers using rotary drum blenders or blending augurs. Do NOT impregnate Trifluralin DF or tank mixes containing Trifluralin DF on or in fertilizers containing ammonium nitrate or straight limestone. Use a minimum of 200 pounds and a maximum of 450 pounds dry fertilizer per acre. Use equipment that gives uniform distribution of the herbicide throughout each batch of impregnated fertilizer. Non-uniform impregnation can cause crop injury or unsatisfactory performance.

- A. Trifluralin DF may be used as the only herbicide or in tank mixes where an EC or other liquid herbicide acts as the sticking agent. A minimum of 1-2 gallons of liquid per ton of dry fertilizer is required to evenly break down and mix Trifluralin DF.

1. While the fertilizer is blending, add Trifluralin DF
2. If a tank mix, add the other product(s).
3. Add 1-2 gallons of 28% UAN or diesel fuel per ton of dry fertilizer.
4. Continue blending thoroughly (3 minutes or more for rotary blenders).
5. When necessary, add a drying agent to ensure a spreadable herbicide/fertilizer mixture

B. Pre-slurried Trifluralin DF can be used alone or in a tank mix for impregnation. When necessary, add a drying agent to ensure a spreadable herbicide/fertilizer mixture.

CLEAN OUT: The equipment used to impregnate or apply fertilizer impregnated with Trifluralin DF or combinations including Trifluralin DF must be cleaned out by running at least 1,000 pounds of fertilizer not impregnated with Trifluralin DF through the impregnating equipment and application equipment, if the next batch of material is to be applied to a crop for which Trifluralin DF or the tank mix herbicide is not registered.

APPLICATION: Spread the fertilizer/chemical mixture with a properly calibrated applicator. Applying the material uniformly to the soil surface is essential. Incorporate within 24 hours after application. See "Incorporation" section for more details.

Use the following formula to calculate the amount of Trifluralin DF to be impregnated per ton of dry bulk fertilizer:

$$\text{Pounds Trifluralin DF per acre} \times \frac{2,000}{\text{Pounds Fertilizer/A Per Ton Fertilizer}} = \text{Pounds Trifluralin DF}$$

CROP RECOMMENDATIONS

Where applicable, rates are given for eastern United States and Western United States. The dividing line between eastern and western states is the point where the average rainfall/year is a minimum of 20 to 25 inches.

Rates are given for broadcast application; for band application use proportionally less amount of product.

ALFALFA (Established)

Use restricted to Western US only.

Apply to established alfalfa stands at a broadcast rate/acre of 1 1/4 lbs. on coarse soil and 1 2/3 lbs. on medium and fine soils. Use incorporation equipment that will ensure thorough soil mixing with a minimum of damage to the established alfalfa.

ASPARAGUS (Established)

Follow recommended soil preparation, application and incorporation procedures for Trifluralin DF.

Trifluralin DF can be applied to established asparagus as a single or as a split application. In the winter or early spring, apply Trifluralin DF to asparagus after ferns are removed but before spears emerge. Or, apply after harvest in the late spring or early summer before ferning begins. Trifluralin DF will suppress volunteer seedling asparagus and field bindweed if the following recommended rates and application schedules are used.

Follow recommended soil preparation, application and incorporation procedures for Trifluralin DF.

BROADCAST RATES / ACRE						
TRIFLURALIN DF						
Soil Texture	Split Application			Single Application		
	Before Harvest	+	After Harvest	Before Harvest	or	After Harvest
	(pounds)			(Pounds)		
Coarse	7/8	+	7/8	1 2/3	or	1 2/3
Medium	1 1/4	+	1 1/4	2 1/2	or	2 1/2
Fine	1 2/3	+	1 2/3	3 1/3	or	3 1/3

*In any single calendar year, the maximum Trifluralin DF to apply is 1 2/3 pounds per acre on coarse soils; 2 1/2 pounds on medium soils; and 3 1/3 pounds on fine soils.

BARLEY-TRIFLURALIN DF ALOE

Trifluralin DF is recommended as a postplant incorporated treatment to control foxtail (pigeongrass).

Apply Trifluralin DF at a broadcast rate of 7/8 pound per acre on coarse and medium soils and 1 1/4 pounds on fine soils.

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

BARLEY (FALL APPLICATION)-FOXTAIL/PIGEONGRASS CONTROL

Trifluralin DF may be fall applied for foxtail/pigeongrass control in barley planted the following spring. Trifluralin DF may be applied to ground that has a manageable trash level, has been fallowed or pre-tilled. The first incorporation is required within 24 hours after application. A second incorporation is required prior to planting to destroy emerged weeds and to ensure an even distribution of Trifluralin DF treated soil.

Apply Trifluralin DF at a broadcast rate of 7/8 pound per acre on coarse and medium soils and 1 1/4 pounds on fine soils.

BARLEY (ACREAGE CONSERVATION RESERVE PROGRAM)-FOXTAIL CONTROL

Trifluralin DF may be applied in the spring as a preplant soil incorporated treatment for foxtail control in spring seeded barley grown on land used in acreage conservation reserve program.

Trifluralin DF should be applied at the rate of 7/8 pound per acre on coarse-textured soils and 1 1/4 pounds per acre on medium- and fine-textured soils. Do not exceed this rate or crop injury may occur.

Planting Directions

Barley should be seeded approximately two (2) inches deep.

Precaution

Use of this practice may result in a slight stand reduction. Follow the most severe grazing restrictions imposed either by the pesticide label or by the USDA Acreage Conservation Reserve Program, whichever is longest. Consult the local ASC office or other state agency to determine the period of the USDA grazing restriction.

BARLEY-TRIFLURALIN DF/FAR-GO TANK MIX

Trifluralin DF/Far-Go applied as a postplant incorporated treatment will control foxtail (pigeongrass) and wild oat.

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

Soil Texture	Broadcast rate/acre	
	Trifluralin DF	Far-Go
Coarse	7/8 lb.	2 1/2 pts.
Medium	7/8 lb.	2 1/2 pts.
Fine	1 1/4 lbs.	2 1/2 pts.

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

BEANS

DRY BEANS AND CASTOR BEANS

Apply and incorporate before planting at the following:

Soil Texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

For dry beans grown in Idaho, Oregon, Washington only, apply any time between October 15 and December 31 at a broadcast rate/acre of 7/8 lb. on coarse soil, 1-1 1/4 lbs. on medium soil, 1 1/4 lbs. on fine soil.

DRY BEANS-TRIFLURALIN DF/EPTAM TANK-MIX

Apply from two days before planting (up to planting in the eastern US) at the following:

Soil Texture	Broadcast rate/acre		
	Trifluralin DF		EPTAM 7E
	Eastern US	Western US	
Coarse	7/8 lb.	7/8 lb.	2 1/2-3 1/2 pts.
Medium	1 1/4 lbs.	1-1 1/4 lbs.	2 1/2-3 1/2 pts.
Fine	1 2/3 lbs.	1 1/4 lbs.	2 1/2-3 1/2 pts.
2 to 5% organic matter	1 1/4-1 2/3 lbs.	1 1/4-1 2/3 lbs.	2 1/2-3 1/2 pts.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.	2 1/2-3 1/2 pts.

Precautions: This combination should not be used on soybean, black-eyed peas (beans), lima beans and other flatpodded beans except Romano. Do not use the foliage from a crop treated with this tank-mix for feed or for grazing.

Observe all directions, precautions and limitations on both products' labeling.

GUAR BEANS, MUNGBEANS, LIMA BEANS, AND SNAP BEANS

Apply and incorporate before planting at a broadcast rate/acre of 7/8 lb. on coarse and medium soils and 1 1/4 lbs. on fine soil.

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CARROTS

Apply and incorporate before planting at the following:

Soil Texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

CELERY

) Both direct-seeded and transplant.

Apply and incorporate before planting or transplanting at the following:

Soil Texture	Broadcast rate/acre
	Western US only
Coarse	7/8 lb.
Medium	1-1 1/4 lbs.
Fine	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.

COLE CROPS

BROCCOLI, BRUSSELS SPROUT, CABBAGE, CAULIFLOWER

) For transplants, apply and incorporate before transplanting at the following:

Soil Texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

For direct-seeded, apply and incorporate before planting at the following:

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	7/8 lb.	7/8 lb.
Fine	1 1/4 lbs.	7/8 lb.
2 to 5% organic matter	1 1/4 lbs.	-
5.1 to 10%		

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organic matter

1 1/4 lbs.

Direct-seeded cole crops have exhibited marginal tolerance to recommended rates. Stunting or reduced stands may occur.

CORN (FIELD CORN) AND GRAIN SORGHUM (MILO)

Apply Trifluralin DF to field corn or grain sorghum (8 inches or taller) as an over-the-top or directed spray to effectively control weeds listed for Trifluralin DF.

Soil Preparation-Cultivate before a Trifluralin DF application to insure loose, friable soil, to remove established weeds, and to cover the base of plants with soil.

Application Directions-Trifluralin DF should be applied and incorporated at the recommended rates for the soil texture when the crop is well established (8 inches or taller). Trifluralin DF may be applied either as an over-the-top spray or as a directed spray. Drop nozzles should be used if foliage prevents uniform coverage of soil surface. Soil incorporation may be accomplished with only one pass of a sweep-type cultivator or a properly adjusted rolling cultivator.

The sweep-type cultivator should have 3 to 5 sweeps per row middle and be operated at 6 to 8 mph. Set the middle sweeps so as to avoid exposing untreated soil. Adjust the incorporation tools to prevent crop injury.

Soil Texture	Broadcast rate/acre
Coarse	5/8-7/8 lb.*
Medium	7/8-1 1/4 lbs.
Fine	1 1/4-1 2/3 lbs.

Use the lower rates when you anticipate light weed pressure and the higher rates when you anticipate heavy weed pressure.

*Corn only: Apply 7/8 to 1 1/4 pounds per acre in Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia to control fall panicum and Texas panicum.

Precaution: Do not apply Trifluralin DF to corn grown for seed. Do not apply Trifluralin DF to corn or sorghum as a preplant or preemergence treatment or crop injury may occur.

COTTON

Pre-emergence application.

Apply and incorporate before planting, at planting or immediately after planting at the following:

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Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3-2 lbs.	1 2/3 lbs.

When incorporating after planting, care must be taken not to disturb the seed.

Post-emergence and layby application.
 Apply any time up to layby but not less than 90 days before harvest. Direct layby applications to the soil between the rows and beneath emerged cotton plants. Use the same rates as for pre-emergence application.

Fall application.
 Apply and incorporate Trifluralin Df any time from October 15 to December 31. The ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from beds into furrows. Where soil is left flat over winter, be careful not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during bedding, destroy these weeds before planting. In the fall, do not apply Trifluralin DF to soils which are wet or subject to prolonged periods of flooding.

In Alabama, Arkansas, Northern Florida, Georgia, Louisiana, Mississippi, SE Missouri bootheel, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, apply and incorporate at a broadcast rate/acre of 1 2/3 lbs. on coarse and medium soils and 2 lbs. on fine soil.

In Arizona, California, Nevada, apply and incorporate at a broadcast rate/acre of 1 1/4 lbs. on coarse soil, 1 2/3 lbs. on medium soil, 2 lbs. on fine soil.

In states other than those listed above, apply and incorporate at a broadcast rate/acre of 7/8 lb. on coarse soil, 1 1/4 lbs. on medium soil, 1 2/3 lbs. on fine soil, 1 1/4 lbs. on soils with 2 to 5% organic matter, 1 2/3 to 2 lbs. on soils with 5.1 to 10% organic matter.

Incorporation With Bedding Implements.
 Bedding implements (listers and hippers) may be used to soil incorporate Trifluralin Df for weed control in cotton. Because bedding implements do not provide thorough soil mixing under conditions, closely follow directions to optimize weed control. Weed control resulting from single pass incorporation with bedding equipment will be reduced compared to conventional double pass incorporation. Use the application rate recommended above for the soil texture to be treated.

Soil preparation.

Crop Residues or Existing Weeds: Ground cover, such as crop residues or existing weeds, can interfere with uniform soil incorporation of Trifluralin DF. A manageable level of such ground cover or crop residues, if excessive, should be reduced by appropriate soil tillage prior to application.

General Soil Conditions: The soil surface should be smooth enough to allow for uniform application and efficient incorporation of Trifluralin DF. Apply Trifluralin DF when soil moisture is sufficient to allow the breakup of large clods and uniform mixing during the incorporation process.

Use Directions for Bedding Equipment.

A lister or sick bedder may be used to incorporate Trifluralin DF. Operate the implement according to the manufacturers use directions in order to produce beds of the desired height. A ripper shank, sweep or chisel shank should be mounted on the bedder in a position behind the spray nozzles but ahead of the bedder tool to help distribute Trifluralin DF in the center of the bed. The use of bed tillage equipment such as rolling cultivators, P.T.O. driven rod weeders or bed conditioners after the bedding operation will provide additional soil mixing. Avoid deep tillage which might bring untreated soil to the surface resulting in loss of weed control. Weather conditions, cultural practices, bed tillage and planting procedures can affect the distribution of Trifluralin DF treated soil. Weed control obtained will be dependent upon how uniformly Trifluralin DF treated soil is distributed over the soil surface at the time of planting.

If trifluralin treated soil is moved, exposing untreated soil, during bed tillage or planting, a band application of Trifluralin DF at planting or a postemergence application may be required to restore uniform weed control.

Precautions.

Do not incorporate with the bedding equipment if the soil is too wet for uniform soil mixing.

Special applications.

For the control of Fall Panicum, apply and incorporate at a broadcast rate/acre of 1 2/3 lbs. on both coarse and medium soils.

For the control of Rhizome Johnsongrass in all cotton producing states except Arizona and California, apply a double-rate Trifluralin DF program for 2 years in a row.

Applications can be made in spring, any time before planting for two years in a row or between October 15 and December 31 for two years in a row at a broadcast rate/acre of 1 2/3 lbs. on coarse soil, 2 1/2 lbs. on medium soil and 3 1/3 lbs. on fine soil. Proper preparation of the soil before application and deep incorporation is essential for best results. Use a chisel plow or similar implement to bring the rhizomes to the top of the soil. Then follow with a disc two times to cut the rhizomes into 2-3" pieces. Some Johnsongrass plants may escape; timely cultivation during the crop season is necessary. In the season following a double-rate treatment, plant only rice and those crops for which Trifluralin DF can be applied as a pre-plant treatment or injury may result.

For the control of Pigweed and Seedling Johnsongrass in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, SE Missouri, North and South Carolina, Tennessee and Southern Virginia, apply Trifluralin DF, preplant, at a broadcast rate/acre of 7/8-1 1/4 lbs. on coarse soil, 1 1/4-1 2/3 lbs. on medium soil, 1 2/3 lbs. on fine soil (2 1/2 lbs. on Louisiana).

Along the Texas Gulf Coast (limited to Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton), apply up to 2 weeks before planting at a broadcast rate/acre of 1 1/4 lbs. on coarse soil, 1 2/3 lbs. on medium soil, 2 1/2 lbs. on fine soil.

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 stands, delayed maturity, and reduced yields.

TRIFLURALIN DF/CAPAROL 80W TANK-MIX

For cotton grown in California, Arizona, New Mexico and west Texas, apply to the flat soil surface before discing at the following:

Soil Texture	Broadcast rate/acre	
	Trifluralin DF	Caparol 80W
Coarse	7/8 lb.	2 lbs.*
Medium	1-1 1/4 lbs.	2 1/2 lbs.
Fine	1 2/3 lbs.	2 1/2 lbs.

*Do not use on sand and loamy sand soils. For band application the user should apply proportionally less.

Carefully follow the procedures on the Caparol label for making a slurry and adding it to a partially filled tank of water. After the Caparol is well mixed, add the Trifluralin DF and agitate continuously.

Precautions: Do not use this tank-mix on the cut areas of newly leveled fields, in areas of excess salt and where flooding over the beds is likely to happen. Do not plant cotton in tractor wheel depressions. These conditions may cause crop injury. On mulch-planted cotton, water back after cotton seedlings are well established.

Crop rotation: Cabbage, okra, onion, peas may be planted in the fall after a spring application of the mixture.

Winter barley, winter rye and winter wheat can be planted in the fall also if they are plowed down and not used for food or feed.

Observe all directions, precautions and limitations on both products' labeling.

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TRIFLURALIN DF/COTORAN 80W TANK-MIX

Except in Arizona and California.

Apply and incorporate at the following:

Soil texture	Broadcast rate/acre	
	Trifluralin DF	Cotoran 80W
Coarse	7/8 lb.	1 1/4 lbs.
Medium	1 1/4 lbs.	2 lbs.
Fine	1 2/3 lbs.	2 1/2 lbs.

Use 15-40 gallons of clean water/acre.

Carefully follow the procedures on the Cotoran label for making a slurry and adding it to a partially filled tank of water. After the Cotoran is well mixed, add the Trifluralin DF and agitate continuously.

Precautions: Do not plant crops other than cotton on the treated land within 6 months after application of this tank-mix or crop injury may result. Do not feed foliage from treated cotton plant or gin trash to livestock. Do not mix with liquid fertilizers.

In West Texas do not use on sandy, loamy sand or fine sandy loam soils. Do not use on cotton planted in furrows.

In Arkansas, Louisiana, Mississippi, use 1 lb. of Cotoran in tank-mix with Trifluralin DF on sandy loam soils low in organic matter.

In New Mexico, do not plant treated land with crops other than cotton until one year after the last application. Do not use on sandy loam soils with less than 1 percent organic matter.

Observe all directions, precautions and limitations on both products' labeling.

COTORAN OVERLAY: Apply Trifluralin DF as recommended and then Cotoran 80W as a preemergence surface treatment at 1 1/4 to 2 1/2 lbs./acre. On light soil and sandy soils low in organic matter, use the lower rate. Refer to Cotoran label for cautions, precautions and instructions.

TRIFLURALIN DF PREPLANT FOLLOWED BY KARMEX 80W OVERLAY

For cotton grown east of the Mississippi River, Arkansas, SE Missouri, Louisiana, eastern Texas, apply and incorporate Trifluralin DF before planting at usual rates. Then make a pre-emergence application of Karmex 80W at 1/3 lb. for coarse soils, 2/3 lb. for medium soils, and 1 lb. for fine soils.

Precautions: Do not use Karmex on Sandy or low organic soils. Do not allow grazing on cotton treated with Karmex. Refer to Karmex 80W label for additional instructions, cautions and precautions.

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CUCURBITS
CANTALOUPE, CUCUMBERS, WATERMELONS

Use restricted to Western US including Texas.

Apply in post-plant emerged at the following:

Soil Texture	Broadcast rate/acre
Coarse	7/8 lb.
Medium	1-1 1/4 lbs.
Fine	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.

Use the higher rate in areas receiving more than 20" average annual rainfall.

Apply as directed spray to the soil between the rows and beneath the plants which are in the 3 to 4 true-leaf stage. Care should be taken that incorporation machinery does not damage the plants.

FORAGE LEGUMES

Trifluralin DF can be used as a preplant incorporated broadcast applied treatment for preemergence control of many annual grasses and broadleaf weeds in direct seeded forage legumes used as cover crops in the acreage conservation reserve program. Apply Trifluralin DF at the following:

Soil Texture	Broadcast rate/acre
Coarse	7/8 lb.
Medium	7/8-1 1/4 lbs.
Fine	1 1/4 lbs.

Follow the most severe grazing restrictions imposed either by the pesticide label or by the USDA Conservation Use Program, whichever is longest. Consult the local ASC committee or other State Agency to determine the period of the USDA grazing restriction.

Precaution: Some stand reductions may occur with this use; however, excellent weed control will allow time for establishment of a quality stand.

GREENS

TURNIP GREENS (for processing), COLLARDS, KALE, MUSTARD GREENS

Apply and incorporate before planting at a broadcast rate/acre of 7/8 lb. on coarse soils and 1 1/4 lbs. on medium and fine soils.

MUSTARD

For mustard grown for seed or processing for food in Minnesota and North Dakota, see "Greens" above.

HOPS

Apply and incorporate while the crop is dormant at a broadcast rate/acre of 7/8 lb. on coarse soil, 1-1 1/4 lbs. on medium soil, 1 1/4 lbs. on fine soil and soils with 2 to 10% organic matter.

MINT (Established Peppermint and Spearmint)

Apply at a rate of 7/8 lb. on coarse soil, 1 lb. on medium soil and 1 1/4 lbs. on fine soil during dormant period.

Use incorporation equipment that will insure thorough soil mixing with minimum damage to the crop.

OKRA

Apply and incorporate before planting, at planting, or immediately after planting at the following:

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

PEANUTS

Spanish peanuts grown in Texas and Oklahoma only.

Apply and incorporate before planting, at planting or immediately after planting at a broadcast rate/acre of 7/8 lb. on coarse soil. Care should be taken not to disturb the seed when incorporating after planting.

TRIFLURALIN DF/VERNAM TANK-MIX

Apply up to 10 days prior to planting, incorporate immediately after application at a broadcast rate/acre of 7/8 lb. of Trifluralin DF and 2 1/3 pts. of Vernam 7E.

Observe all directions, precautions and limitations on both products' labeling.

PEAS

ENGLISH PEAS, DRY PEAS

Apply and incorporate before planting at a broadcast rate/acre of 7/8 lb. on coarse and medium soils and 1 1/4 lbs. on fine soil.

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TRIFLURALIN DF/FAR-GO TANK MIX

In Idaho, Oregon and Washington, the tank mix combination of Trifluralin DF plus Far-Go will provide control of wild oat in addition to other annual grasses and broadleaf weeds controlled by trifluralin.

Application Rates: Broadcast 5/8 lb. per acre on coarse and medium soils; 7/8 lb. on fine soils. Use 1 1/4 quarts of Far-Go per acre for all soil textures.

Incorporation Directions: Apply and incorporate up to 3 weeks before planting. Follow recommended incorporation procedures for Trifluralin DF.

Precautions: Do not apply to lentils. Leaf crinkling and delays maturity of peas may occur, particularly on clay points in the northwest; but this is usually more than offset by a reduction of wild oat. Do not use foliage from treated peas for feed or forage. Refer to the cautions, precautions and directions on the Far-Go label.

Fall applications.

For dry end English peas grown in Idaho, Oregon and Washington only, apply and incorporate any time between October 15 and December 31 at a broadcast rate/acre of 7/8 lb. on coarse soil, 1 1/4 lbs. on medium soil and 1 1/4 lbs. on fine soil. Destroy established weeds during seedbed preparations. Do not apply in the fall to soils which are wet or are subject to prolonged periods of flooding.

SOUTHERN PEAS

Apply and incorporate before planting at the following:

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

PEPPERS

Apply and incorporate before transplanting at the following:

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

Do not apply after transplanting.

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POTATOES

Not recommended for use in the state of Maine.

Apply after planting, before emergence or immediately following drag off or after the potato plants have fully emerged.

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

Care should be taken so that incorporation machinery does not damage potato seed pieces or elongating sprouts. Set incorporation equipment so that bed and furrow will be uniformly covered by the product. If the layer of Trifluralin DF treated soil is not uniform, potato emergence may be retarded and stem brittleness can occur. When applying and incorporating after potato plants have fully emerged, do not completely cover the foliage with treated soil.

Split application in Idaho, Oregon, Washington.

On all soils apply and incorporate 5/8 lb. before planting and 5/8 lb. after planting when potato plants have fully emerged.

Precautions: Do not apply to soil containing 2% or more organic matter.

TRIFLURALIN DF/EPTAM TANK-MIX

For potatoes grown in Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, apply after planting, but prior to crop emergence. In areas where potatoes are normally dragged off the mixture should be applied and incorporated up to or immediately following drag off.

Soil texture	Broadcast rate/acre		
	Trifluralin DF		Eptam 7E
	Eastern US	Western US	
Coarse	7/8 lb.	7/8 lb.	1 3/4-7 pts.*
Medium	7/8-1 1/4 lbs.	7/8-1 1/4 lbs.	1 3/4-7 pts.*
Fine	7/8-1 2/3 lbs.	7/8-1 1/4 lbs.	1 3/4-7 pts.*
2 to 5% organic matter	1 1/4 lbs.	1 1/4 lbs.	1 3/4-7 pts.*
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.	1 3/4-7 pts.*

*Use higher rates for nutsedge control.

Precautions: Do not graze or feed forage to livestock from fields treated with this mixture.

For potatoes grown in Washington, Idaho, Oregon, apply and incorporate before planting at a broadcast rate of 5/8 lb. of Trifluralin DF/acre and 3 1/2 pts. fo Eptam 7E/acre on all soils.

Precautions: Do not use this tank-mixture both before and after planting in the same season. Do not use foliage from treated crops for feed or forage. Observe all directions, precautions and limitations on both products' labeling.

RAPE

For use in all states except Alaska. Trifluralin DF may be applied in the fall or early spring prior to seeding. Set incorporation equipment to incorporate to a depth of 3 to 4 inches. Apply 7/8 lb. on coarse soil, 1-1/4 lbs. on medium soil, and 1 2/3 lbs. on fine soil.

SAFFLOWER

Apply and incorporate in the spring before planting or in the fall between October 15 and December 31 at the following:

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4 lbs.	1 1/4 lbs.
5.1 to 10% organic matter	1 2/3-2 lbs.	1 2/3-2 lbs.

Fall application. For safflower grown in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming: Apply and incorporate anytime between October 15 and December 31 at a broadcast rate/acre of 1 1/4 lbs. on coarse soil, 1 2/3 lbs. on medium soil, 2 lbs. on fine soil. Ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting.

Precautions: Do not apply in the fall to soils which are wet or are subject to prolonged periods of flooding.

SOYBEAN

Apply and incorporate before planting at the following:

Soil Texture	Broadcast rate/acre
Coarse	7/8 lb.
Medium	1 1/4 lbs.
Fine	1 2/3 lbs.
2 to 5% organic matter	1 1/4 lbs.
5.1 to 10% organic matter	1 2/3-2 lbs.*

*Except charcoal soils in Arkansas, Louisiana and Mississippi (See below).

Charcoal soils in Arkansas, Louisiana and Mississippi.

Newly cleared land often contains high organic matter (5 to 10%) and charcoal which results from burning debris. This tends to bind Trifluralin DF reducing its weed control activity. Higher product rates are therefore necessary, but increased rates can cause crop injury if charcoal or organic matter is not present. In the burn row a level of charcoal is present; consequently, poor weed control may result even with an increased rate. Apply and incorporate at a broadcast rate/acre of 1 1/4-2 lbs. on coarse soil, 2 lbs. on medium soil, 2 1/2 lbs. on fine soil.

Fall application.

Apply anytime between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting.

In Alabama, Arkansas, Northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri Bootheel, North Carolina, Oklahoma, South Carolina, Tennessee, Texas: Apply and incorporate at a broadcast rate/acre of 1 2/3 lbs. on coarse and medium soils and 2 lbs. on fine soil.

In states other than those listed above: Apply and incorporate at a broadcast rate/acre of 7/8 lb. on coarse soil, 1 1/4 lbs. on medium soil and 1 2/3 lbs. on fine soil, 1 1/4 lbs. on coarse soil with 2 to 5% organic matter, 1 2/3 to 2 lbs. on soils with 5.1 to 10% organic matter.

Precautions: Do not apply to soils which are wet or subject to prolonged periods of flooding or where rice was grown the previous year.

Special applications.

For the control of Fall Panicum, apply at a broadcast rate/acre of 1 2/3 lbs. on both coarse and medium soils.

For more complete control of Pigweed and Seedling Johnsongrass in Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma, South Carolina, Tennessee, S. Virginia: Apply at a broadcast rate/acre of 7/8-1 1/4 lbs. on coarse soil, 1 1/4-1 2/3 lbs. on medium soil, 1 2/3 lbs. on fine soil (2 1/2 lbs. in Louisiana).

For more complete weed control in the Texas Gulf Coast (limited to Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton counties): Apply up to 2 weeks before planting at a broadcast rate/acre of 1 1/4 lbs. on coarse soil, 1 2/3 lbs. on medium soil, 2 1/2 lbs. on fine soil.

For suppression or partial control of Red Rice in Arkansas, Louisiana, Mississippi, Texas: Apply as directed at double the normal rate the first year and at the normal rate the second year. Apply and incorporate anytime in the spring before planting at the following:

Soil texture	Broadcast rate/acre	
	1st Year	2nd Year
Coarse	1 2/3 lbs.	7/8 lb.
Medium	2 1/2 lbs.	1 1/4 lbs.
Fine	3 1/3 lbs.	1 2/3 lbs.
2 to 5% organic matter	2 1/2 lbs.	1 1/4 lbs.
5.1 to 10% organic matter	3 1/3 lbs.	1 2/3-2 lbs.

If a combination of high organic matter and charcoal are present, apply in the second year the rates labeled for charcoal soils in Louisiana, Arkansas and Mississippi (1 1/4-2 lbs. on coarse soil, 2 lbs. on medium soil, 2 1/2 lbs. on fine soil).

Drop rotation: The second year, plant only those crops for which Trifluralin DF has been registered as a preplant treatment, or crop injury may result.

Precautions: Do not plant rice the second year. Rice may be planted the third year.

For the control of Rhizome Johnsongrass in eastern United States and Texas. Apply in a row for two consecutive years according to the program that best fits your cultural practices: as spring application, anytime in spring before planting; as fall application, between October 15 and December 31; as split application, directed under both spring and fall applications.

Soil texture	Broadcast rate/acre	
	Spring or Fall	Split Spring and Fall
Coarse	1 2/3 lbs.	7/8 lb.
Medium	2 1/2 lbs.	1 1/4 lbs.
Fine	3 1/3 lbs.	1 2/3 lbs.
2 to 5% organic matter	2 1/2 lbs.	1 1/4 lbs.
5.1 to 10% organic matter	3 1/3 lbs.	1 2/3 lbs.

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

Incorporation-Deep incorporation is essential for good rhizome Johnsongrass control. Incorporate Trifluralin DF thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary, with the second pass in a different direction from the first.

Cultivation-Some Johnsongrass plants will escape. Timely cultivations during the crop season to remove escaped plants are necessary to obtain commercially acceptable control.

Crop Rotation: In the season following a double rate treatment, plant only rice and those crops for which Trifluralin DF can be applied as a preplant treatment or injury may result.

For the control of Wild Cane (shattercane).

Wild Cane can germinate from greater soil depth than most other weed seeds. Several "flushes" or germinating times are common in one season. Commercially acceptable control of Wild Cane can be obtained with increased rates of Trifluralin DF.

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

Application. Apply before planting at a broadcast rate/acre of 7/8 lb. on coarse soil, 1 2/3 lbs. on medium soil, 2 lbs. on fine soil.

Incorporation. Deep incorporation is essential to good Wild Cane control. Incorporate thoroughly with a disc set to cut 4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph. Cultivations during the crop season will also contribute to control.

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

TRIFLURALIN DF/SENCOR OR LEXONE TANK-MIX

Trifluralin DF/Sencor or Lexone controls grasses and weeds controlled by Trifluralin DF alone plus additional weeds listed for the mixture. The tank mix can be applied from two weeks before planting up to planting.

Soil texture	Broadcast rate/acre		
	Trifluralin DF	Sencor 50WP/4 or Lexone 50WP/4L	Sencor DF or Lexone DF
Coarse	7/8 lb.	1/2 lb./pt.	1/3 lb.
Medium	1 1/4 lbs.	3/4 lb./pt.	1/2 lb.
Fine	1 2/3 lbs.	1 lb./pt.	2/3 lb.

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

Precautions: Do not plant any crop other than soybeans within 4 months after treatment. Over application, uneven application or improper soil incorporation can result in erratic weed control or crop injury. Seedling disease, cold weather, deep planting, excessive moisture, soil pH over 7.5, high salt concentration or drought may weaken crop seedlings and increase possibility of damage from the application of this tank-mix. These additional factors may also delay crop development or reduce yields when Sencor or Lexone is applied. Observe all cautions and limitations on the Sencor or Lexone labels. Do not use the foliage from soybeans treated with the Trifluralin DF/Sencor or Trifluralin DF/Lexone tank mix for feed or forage.

Additional Sencor and Lexone precautions: Do not use Lexone or Sencor on Tracy, Semmes, Altona, Vansoy or Coker 102 soybeans. These varieties are sensitive to Lexone or Sencor, and crop injury may result. Seed must be planted at least 1 1/2 inches but not more than 2 inches below the soil surface before a Sencor or Lexone application. Do not apply Sencor or Lexone at these rates more than once per season. Do not replant areas treated with Sencor or Lexone with any crop other than soybeans within 4 months after treatment. Injury to soybeans may occur if you use Lexone or Sencor on soils having a calcareous surface or pH of 7.5 or higher, or if you use them in conjunction with soil-applied organic phosphate pesticides.

For the control of Rhizome Johnsongrass.

Apply up to two weeks before planting for two consecutive years at the following:

Soil texture	Broadcast rate/acre		
	Trifluralin DF	Sencor 50WP/4 or Lexone 50WP/4L	Sencor DF or Lexone DF
Coarse	1 2/3 lb.	1/2 lb./pt.	1/3 lb.
Medium	2 1/2 lbs.	3/4 lb./pt.	1/2 lb.
Fine	3 1/3 lbs.	1 lb./pt.	2/3 lb.

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

Read and follow all additional precautions listed for Trifluralin DF/Sencor or Lexone tank mix above.

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TRIFLURALIN DF/CANOPY TANK-MIX (Do Not Use in California)

Apply Trifluralin DF/Canopy as a preplant incorporated tank-mix treatment. Follow recommended soil preparation, application, and incorporation procedures for Trifluralin DF. Plant soybeans within two (2) weeks after application.

Soil Texture	Broadcast rate/acre	
	Trifluralin DF	Canopy Dispersible Granules
		0.5-3% O.M. 3-5% O.M.
Coarse	7/8 lb.	6-8 oz. 8-10 oz.
Medium	1 1/4 lbs.	8-10 oz. 10-12 oz.
Fine	1 3/8 lbs.	10-12 oz. 12-14 oz.

Do not apply Canopy to soil with less than 1/2% organic matter.

Use higher rates of Canopy on soils with higher organic matter or heavy pressure from large deep germinating weed seeds.

Where Canopy is applied, plant soybean seed 1 1/2 to 2" deep on a flat or raised seedbed only, or crop injury may occur.

Soybean injury may occur where Canopy is applied if excessive rainfall occurs after application but before soybeans germinate.

Precautions: Read the Canopy label carefully for cautions and precautions relating to environmental hazards, planting of rotation crops, sprayer contamination and cleanup, soil pH, organic matter and soil texture use restrictions, soybean variety plating restrictions, restrictions where atrazine or Scepter were used the previous year, restrictions concerning use with organic phosphate pesticides, grazing restrictions, and other directions, precautions and limitations before applying the Trifluralin DF/Canopy tank-mix.

TRIFLURALIN DF/PREVIEW TANK-MIX (Do Not Use in California)

Apply Trifluralin DF/Preview as a preplant incorporated tank-mix treatment. Follow recommended soil preparation, application, and incorporation procedures for Trifluralin DF. Plant soybeans within two (2) weeks after application.

Soil Texture	Broadcast rate/acre	
	Trifluralin DF	Preview Dispersible Granules
		0.5-3% O.M. 3-5% O.M.
Coarse	7/8 lb.	6 oz. 7 oz.
Medium	1 1/4 lbs.	7 oz. 8 oz.
Fine	1 3/8 lbs.	8 oz. 9-10 oz.

Do not apply Preview to soil with less than 1/2% organic matter.

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Use higher rates of Preview on soils with higher organic matter or heavy pressure from large deep germinating weed seeds.

Where Preview is applied, plant soybean seed 1 1/2 to 2" deep on a flat or raised seedbed only, or crop injury may occur.

Soybean injury may occur where Preview is applied if excessive rainfall occurs after application but before soybeans germinate.

Precautions: Read the Preview label carefully for cautions and precautions relating to environmental hazards, planting of rotation crops, sprayer contamination and cleanup, soil pH, organic matter and soil texture use restrictions, soybean variety planting restrictions, restrictions where Atrazine or Sceptor were used the previous year, restrictions concerning use with organic phosphate pesticides, grazing restrictions, and other directions, precautions and limitations before applying the Trifluralin DF/Preview tank-mix.

TRIFLURALIN DF/AMIBEN TANK-MIX

Apply as a spring preplant incorporated treatment.

Soil texture	Broadcast rate/acre		
	Trifluralin DF	Amiben 2S	Amiben DS
Coarse	7/8 lb.	4-6 qts.*	2.4-3.6 lbs.*
Medium	1 1/4 lbs.	4-6 qts.	2.4-3.6 lbs.
Fine	1 2/3 lbs.	4-6 qts.	2.4-3.6 lbs.

*Use the higher rates of Amiben where you expect heavy populations of smartweed, velvetleaf, ragweed, wild mustard and black nightshade. Observe all directions, precautions and limitations on both products' labeling.

TRIFLURALIN DF/AMIBEN/SENCOR OR LEXONE TANK-MIX

The Trifluralin DF/Amiben/Sencor or Lexone tank mix effectively controls all weeds listed for Trifluralin DF/Amiben and Trifluralin DF/Sencor or Lexone tank mixes.

Follow recommended soil preparation, application, and incorporation procedures for Trifluralin DF. The Trifluralin Df/Amiben/Sencor or Lexone mix may be applied from several days prior to planting up to planting in 10 to 40 gallons of water per acre. Use screens no finer than 50 mesh.

Apply the Trifluralin DF/Amiben/Sencor or Lexone tank mix at the following:

Soil Texture	Broadcast rates/acre			
	Trifluralin DF	Amiben 2S	Lexone 50WP/4L	Lexone DF
			OR Sencor 50WP/4	OR Sencor DF
Coarse ^a	7/8 lb.	3-4 qts. ^b	1/2 lbs./pts.	1/3 lb.
Medium	1 1/4 lbs.	3-4 qts. ^b	1/2-3/4 lbs/pts. ^c	1/3-1/2 lbs.

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Fine 1 2/3 lbs. 4-5 qts. 3/4 lbs./pts.^c 1/2 lb.^c

^aDo not use Sencor or Lexone on coarse soils with less than 1% organic matter.
^bUse the higher rate of Amiben when velvetleaf or black nightshade is a problem.
^cOn Clarion/Webster soils in Minnesota and Iowa or on similar alkaline (calcareous) soils with a pH of 7.5 or above, apply Sencor or Lexone at the rates listed below:

	Lexone 50WP/4L or Sencor WP/4	or	Lexone DF or Sencor DF
Soil Texture			
Medium	1/2 lbs/pts.		1/3 lb.
Fine	1/2-3/4 lbs/pts. ^d		1/3-1/2 lb. ^d

^dUse the higher rate only where soil pH is less than 7.5 and where weed pressure is heavy.

Additional precautions: The Trifluralin DF/Amiben/Sencor or Lexone tank mix will not harm the treated crop when you apply it according to directions and under normal growing conditions. However, overapplication, uneven application or improper soil incorporation of the tank mix can result in erratic weed control or crop injury. Additional stress factors are seedling disease, cold weather, deep planting, excessive moisture, soil pH over 7.5, high salt concentration, or drought. These additional factors may weaken crop seedlings and increase the possibility of damage from the tank mix. These additional factors may also delay crop development or reduce yields. Observe all cautions and limitations of all products used in mixtures. Do not use the foliage from soybeans treated with the Trifluralin DF/Amiben/Sencor or Lexone tank mix for feed or forage.

TRIFLURALIN DF/VERNAM TANK-MIX

Apply up to 10 days prior to planting at the following:

Soil texture	Broadcast rate/acre	
	Trifluralin DF	Vernam 7E
Coarse	7/8 lb.	1 3/4-2 1/3 pts.
Medium	1 1/4 lbs.	2 1/3-3 pts.*
Fine	1 2/3 lbs.	3-3 1/2 pts.

*Use higher rates for nutsedge, wild cane and velvetleaf control. Observe all directions, precautions and limitations on both products' labeling.

TRIFLURALIN DF PREPLANT INCORPORATED FOLLOWED BY OVERLAY TREATMENTS
(Do Not Use in California)

Apply Trifluralin DF as a preplant incorporated treatment. Additional weeds tolerant to Trifluralin DF may be controlled by using overlay preemergence applications of Amiben, Canopy, Dual, Gemini, Lasso, Lexone, Lorox Plus, Preview, Scepter or Sencor. Consult these product labels for additional

weeds controlled, application directions and precautions before use.

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SUGAR BEETS

Apply as a broadcast, overtop spray to plants immediately after blocking or thinning when plants are between 2 and 6 inches tall. Exposed beet roots should be covered with soil prior to application to reduce possibilities of girdling. Care should be taken that incorporation machinery does not damage the taproot.

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 1/4 lbs.	1 1/4 lbs.

Special application.

Incorporation with a tine-tooth harrow in California, Colorado, Idaho, Kansas, Montana, Nebraska, Oregon, Texas, Utah, Washington, Wyoming. A properly operated tine-tooth harrow can provide adequate incorporation of the herbicide for effective weed control in sugar beets. Operate the tine-tooth harrow two times over the field in opposite directions at a speed of 3 to 6 mph and set the harrow to cut 1 to 2 inches deep. Care should be taken to insure that the tine-tooth harrow does not damage the sugar beet taproot.

SUGARCANE

Use restricted to eastern United States.

Plant Cane

Apply and incorporate twice a year at a broadcast rate/acre of 1 2/3 to 3 1/3 lbs. for all soil textures. 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 to 3 inches deep before the spring application. Care should be taken so that incorporation machinery does not damage the seed pieces or emerging shoots.

Plant and Ratoon Cane (grown in Louisiana and Texas only).

Apply and incorporate at a broadcast rate/acre of 1 2/3 to 3 1/3 lbs. for all soil textures. Make application in the spring after the beds have been shaved or false shaved before or shortly after the cane emerges up to layby. Loosen rain-packed bed to 2 to 3 inches deep before application. Care should be taken so that incorporation machinery does not damage seed pieces or emerging roots.

Post-plant in Hawaii (only for control of most annual grasses including guineagrass).

Apply to surface after planting (for plant cane) or after harvesting (for ratoon cane) before weeds and cane emerge at a broadcast rate/acre of 5 to 6 2/3 lbs. for all soil textures. In plant cane the beds should be formed or rolled before application. In ratoon cane, the crop residue should be removed before application. If large amounts of crop residues are present, Trifluralin DF will not be effective. Apply just before anticipated rainfall or sprinkle irrigate immediately after application.

Itchgrass control (in Louisiana only).

Apply and incorporate on either plant or ratoon cane at a broadcast rate/acre of 3 1/3 lbs. for all soil textures. Apply in the spring from before or shortly after the cane emerges up to layby. Follow directions above for sugarcane layby application in Louisiana and Texas.

SUNFLOWER

Apply and incorporate in the spring or in the fall between October 15 and December 31 at the following:

Soil texture	Broadcast rate/acre	
	Eastern US	Western US
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4-1 2/3 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

TRIFLURALIN DF/AMIBEN TANK-MIX OR OVERLAY

Tank-mix: Apply prior to planting.

Overlay: Apply Amiben 2S in band or broadcast over sunflowers at planting in fields where Trifluralin DF has been incorporated prior to planting. Or, the Trifluralin DF/Amiben 2S tank mix may be incorporated prior to planting.

Soil texture	Broadcast rate/acre	
	Trifluralin DF	Amiben 2S
Coarse	7/8 lb.	4 qts.
Medium	1 1/4 lbs.	4-6 qts.*
Fine	1 2/3 lbs.	4-6 qts.*

Use higher rates for best control of Mustard, Common Ragweed or Black lightshade.

If sufficient rain does not fall within 7 days after a pre-emergence application of Amiben, but there is enough soil moisture, a light cultivation with a rotary hoe or similar tool will uproot these small broadleaf weeds and grasses. In coarse soil heavy rains may move incorporated Amiben below the weed seed germinating zone; erratic weed control may result.

TOMATOES

For direct-seeded tomatoes, apply at blocking or thinning as a directed spray to soil between the rows, beneath the plants, and incorporate.

For transplant, apply and incorporate before transplanting. Do not apply after transplanting.

Soil texture	Broadcast rate/acre	
	Eastern US	Western US.
Coarse	7/8 lb.	7/8 lb.
Medium	1 1/4 lbs.	1-1 1/4 lbs.
Fine	1 2/3 lbs.	1 1/4 lbs.
2 to 5% organic matter	1 1/4 lbs.	1 1/4-1 2/3 lbs.
5.1 to 10% organic matter	1 2/3 lbs.	1 2/3 lbs.

TREES AND VINEYARDS

EASTERN US

For new planting of vineyards, citrus and pecan trees, apply and incorporate before planting at the following:

Soil texture	Broadcast/rate acre
Coarse	7/8 lb.
Medium	1 1/4 lbs.
Fine	1 2/3 lbs.
2 to 5% organic matter	1 1/4 lbs.
5.1 to 10% organic matter	1 2/3 lbs.

For non-bearing established plantings of citrus and pecan trees and bearing plantings of grapefruit, lemon, orange, pecan, tangelo, tangerine trees, apply at a broadcast rate/acre of 1 2/3 to 3 1/3 lbs. for all soil textures. Apply as a directed spray to soil around the trees and use incorporation methods not injurious to the trees. For continued weed control in citrus area, apply twice a year at an interval of approximately 4 to 6 months.

WESTERN US

For new plantings of almond, apricot, citrus, nectarine, peach, pecan, walnut trees, apply and incorporate before planting at the following:

Soil Texture	Broadcast/rate/acre
Coarse	7/8 lb.
Medium	1-1 1/4 lbs.
Fine	1 1/4 lbs.
2 to 5% organic matter	7/8-1 1/4 lbs.
5.1 to 10% organic matter	1 2/3 lbs.

For new plantings of vineyards, apply before planting at the following:

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Soil Texture	Broadcast/rate/acre
Coarse	7/8-1 1/4 lbs.
Medium	1 1/4-2 1/2 lbs.
Fine	2 1/2-3 1/3 lbs.
2 to 10% organic matter	2 1/2-3 1/3 lbs.

Do not use more than 1 2/3 lbs./acre on heat-treated grape rootings.

For post-plant applications on bearing and non-bearing established plantings of vineyards, almonds, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, plum, prune, tangelo, tangerine, and walnut trees, apply at a broadcast rate/acre of 1 2/3 to 3 1/3 lbs. for all soil textures. Apply as directed spray to the soil around the trees or vines and use incorporation methods not injurious to the trees or vines. Do not apply to vineyards within 60 days of harvest. For continued weed control in citrus trees, apply twice a year at an interval of about 4 to 6 months.

Special application.

For Rhizome Johnsongrass control (Western US only). Commercially acceptable control of Rhizome Johnsongrass can be obtained with post-plant applications in bearing and non-bearing established plantings of vineyards, almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerines, and walnut trees. Work the soil thoroughly to bring the rhizomes nearer the surface. Apply for two years in a row at a broadcast rate/acre of 3 1/3 lbs. on all soil textures each year. Incorporate thoroughly with a disc set to cut 4 to 6 inches deep and operate 2 times at 4 to 6 mph. Some Johnsongrass plants will escape. Timely cultivations are necessary.

Precautions: Do not use the 3 1/3 lbs. rate on new plantings; do not apply to vineyards within 6 months of harvest; do not interplant orchards or vineyards with other crops, if the Trifluralin DF treated vineyards and orchards are diverted to other crop uses, plant only those crops for which Trifluralin DF has been registered as a preplant treatment.

For Field Bindweed control in vineyards, almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine, walnut trees in California only.

Apply in the spring with a specially designed spray blade which applies at a soil depth of 4 to 6 inches at a broadcast rate/acre of 3 1/3 lbs. on all soil textures in 40-80 gallons of water/acre. Destroy all weeds and grasses with soil tillage before applying.

Precautions: Some soils develop cracks as they dry after rainfall or irrigation and Field Bindweed may emerge. Prevent or eliminate cracks by shallow discing or other tillage.

WHEAT

WHEAT (WINTER) grown in Idaho, Oregon and Washington.

Apply any time during a period from 3 weeks up to immediately prior to planting at a broadcast rate/acre of 1 1/4 lbs. on coarse and medium soils and 1 2/3 lbs. on fine soils. Incorporate, with a flexible tine-tooth harrow set to cut 1 to 2 inches deep and operate at 3 to 6 mph, one time within 24 hours after application and a second time, in a different direction, prior to planting. Do not till the soil with a disc after the material has been incorporated with a flexible tine harrow.

Precautions: Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development. Use deep or semi-deep furrow drills.

WHEAT (WINTER) fallow soil application in Washington and Oregon.

Apply any time from May to September prior to the fall planting at a broadcast rate/acre of 1 1/4 lbs. on coarse and medium soils and 1 2/3 lbs. on fine soil. Incorporate, with a flexible tine-tooth harrow set to cut 1 to 2 inches deep and operate at 3 to 6 mph, one time within 24 hours after application and a second time, in a different direction, prior to planting. Do not till the soil with a disc after the material has been incorporated with a flexible tine harrow.

Precaution: Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development. Use deep or semi-deep furrow drills.

WHEAT (SPRING AND DURUM)

Trifluralin DF is recommended as a postplant incorporated treatment to control foxtail (pigeongrass).

Apply Trifluralin DF at a broadcast rate of 7/8 lb. per acre on coarse and medium soils and 1 1/4 lbs. on fine soils.

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

WHEAT (SPRING AND DURUM) - TRIFLURALIN DF/FAR-GO TANK MIX

Trifluralin DF/Far-Go applied as a postplant incorporated treatment will control foxtail (pigeongrass) and wild oat.

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

Broadcast rate/acre		
	Trifluralin DF	Far-Go
	Durum	Durum
Soil Texture	Spring Wheat	Spring Wheat
Coarse	7/8 lb.	2 pts.
Medium	7/8 lb.	2 pts.
Fine	1 1/4 lbs.	2 pts.

Precautions: Overapplication may result in crop injury. Read the Far-Go label carefully before using.

FALL APPLICATION

General (Eastern US): See specific crop for recommendations. For all crops for which there are no specific fall application instructions and for which Trifluralin DF is recommended as a preemergence application, use the rates listed for spring applications. Do not apply Trifluralin DF in the fall for sugarbeets, potatoes, and direct-seeded tomatoes.

Apply and incorporate Trifluralin DF any time between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from beds into furrows. Where soil is left over winter, be careful not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during bedding, destroy these weeds before planting. Do not apply Trifluralin DF in the fall to soils which are wet, are subject to prolonged periods of flooding or where rice was grown the previous year.

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NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. If a lack of commercially acceptable control occurs, purchaser must notify Terra within twenty-one (21) days after the first planting or after application of Trifluralin DF to the treated crop, whichever occurs later. Neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller and Buyer assumes the risk of any such use.