

ALBAUGH

# TRIFLURALIN 10G

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

**ACTIVE INGREDIENT:**

Trifluralin: a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine..... 10%

**OTHER INGREDIENTS:**..... 90%

**TOTAL** 100%

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

### STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Flush eyes with plenty of water. Call a physician if irritation develops.

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

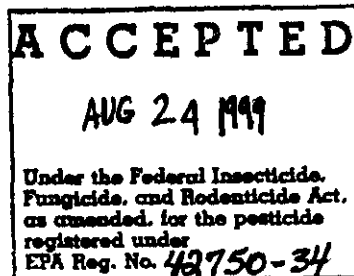
**IF INHALED:** Remove individual to fresh air. If not breathing, give artificial respiration, preferably cardiopulmonary resuscitation assistance (mouth-to-mouth), and get medical attention immediately.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.

EPA Reg. No. 42750-34

EPA Est. No. 34704-NB-1

Manufactured By:  
Albaugh, Inc.  
Ankeny, Iowa 50021



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

Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

**PERSONAL PROTECTIVE CLOTHING**

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear.

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 product is extremely toxic to freshwater, marine, and estuarine fish and aquatic invertebrates including shrimp and oyster. Do not apply in a manner that will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when disposing of equipment washwaters.

**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-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

**STORAGE AND DISPOSAL**

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

**STORAGE**

Store in original container only. In case of spill, contain material and dispose as waste.

**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 by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of bags in sanitary landfill or by incineration, in accordance with applicable regulations, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**GENERAL INFORMATION**

Trifluralin 10G herbicide is a selective preemergence herbicide for control of many annual grasses and broadleaf weeds. The product must be mechanically incorporated within 24 hours after application to effectively control weeds. Trifluralin 10G controls susceptible weeds as they germinate. It does not control established weeds.

**GENERAL USE PRECAUTIONS**

Applied according to directions and under normal growing conditions Trifluralin 10G will not harm the treated crop. Overapplication 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 Trifluralin 10G to soils that are wet or are subject to prolonged periods of flooding as poor weed control may result.

Do not use Trifluralin 10G on any crop grown in Pecos County or Reeves County, Texas.

In Montana, uses of Trifluralin 10G are limited to those described in supplemental labeling. Refer to supplemental labeling for crops and specific use directions.

**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. 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 of Trifluralin 10G.

**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 10G 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 of Trifluralin 10G.

**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 of Trifluralin 10G. 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 of Trifluralin 10G.

**Other Crops**

Vegetable crops other than those listed on this label for use with preplant soil incorporated application of Trifluralin 10G should not be planted within 5 months after an application of Trifluralin 10G.

**Application Directions**

**Soil Preparation**

Trifluralin 10G may be applied to standing stubble or soil that has been pretilled. Existing weeds and crop residues should be reduced to a manageable level using tillage so that Trifluralin 10G can be uniformly incorporated into the top 2 to 3 inches of the final seedbed. Soil surface conditions should allow Trifluralin 10G to be thoroughly and uniformly mixed into the top 2 to 3 inches of soil. If this is not possible, the soil should be tilled prior to application.

**General Soil Conditions**

The soil surface should be smooth enough to allow for uniform application and efficient incorporation of Trifluralin 10G. Apply when soil moisture is sufficient to allow breakup of large clods and uniform mixing during the incorporation process. Soil compaction and/or nonuniform incorporation may occur when soil is excessively moist.

**Application**

Trifluralin 10G may be applied with ground or aerial broadcast application equipment. Apply only with equipment capable of accurate calibration and uniform application of herbicide granules. Apply at the recommended rate for soil texture class to be treated. Follow calibration directions provided by the equipment manufacturer. Avoid releasing granules in narrow bands on the soil surface as this may cause crop injury.

Freezing will not adversely affect this product. If product is frozen at the time of application, agitate or thaw to restore free-flowing properties to Trifluralin 10G.

**Soil Texture Guide for Application Rates**

Trifluralin 10G rate recommendations for incorporated treatments are based on "Soil Texture Class" (coarse, medium or fine) and soil organic matter content. A fine textured soil (e.g., clay loam) will require a higher application rate than a coarse textured soil (e.g., loamy sand). In the table below, find the "Soil Texture Class" (coarse, medium or fine) corresponding to the soil texture to be treated. Choose the proper rate for each application based on the "Soil Texture Class" and specific crop recommendations. Do not exceed recommended rates.

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

**Application Rate Ranges**

Where a rate range is shown, use the lower rate for coarser textured soils or soils with low organic matter content. Use the higher rate in the rate range for finer textured soils and on soils containing more than 5% organic matter. Where soil texture is variable within the same field, use the lower recommended Trifluralin 10G rate.

**Application Timing**

**Spring Application**

Apply Trifluralin 10G any time after January 1 when soil can be worked and is in condition suitable for good incorporation. See "Approved Crops" section for recommendations on specific crops.

**Fall Application**

**Application Timing:** In California, Minnesota, North Dakota and South Dakota, apply Trifluralin 10G any time between September 1 and December 31. In all other states, fall apply Trifluralin 10G any time between October 15 and December 31.

**Application Rates for Fall Application:** Refer to the "Approved Crops" section of this label for specific rate recommendations. Increased rates for fall application are recommended for certain crops grown in certain geographic areas. For crops for which there are no specific fall application instructions, and for which Trifluralin 10G is recommended as a preplant incorporated treatment, use the rates listed for spring applications. In areas receiving greater than 20" total average annual rainfall and irrigation, use the higher rate in the recommended rate range. Do not apply Trifluralin 10G prior to planting sugar beets, potatoes and direct seeded tomatoes the following spring.

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.

Prior to planting, destroy any weeds which have become established in furrows due to uncovering of untreated soil. Do not apply Trifluralin 10G in the fall to soils that are wet or subject to prolonged periods of flooding, or where rice was grown the previous year.

**Incorporation Directions**

Trifluralin 10G requires two incorporation passes. The first should occur within 24 hours after application. For best weed control results, the second incorporation should be delayed 3 to 5 days after the first and be completed prior to planting. A minimum delay of 7 days after the first incorporation is recommended for certain Trifluralin 10G uses in small grains. See specific use directions. The second incorporation pass should occur in a different direction than the first. Use incorporation equipment capable of thoroughly and uniformly mixing Trifluralin 10G into the top 2 to 3 inches of the final seedbed. Erratic weed control may result if untreated soil is moved to the surface during the second incorporation pass. To avoid this problem, set equipment so that the second incorporation pass is not deeper than the first.

**Incorporation to Established Crops**

Trifluralin 10G may be applied and incorporated in certain established crops. Refer to the "Approved Crops" section of this label for specific incorporation directions.

**Incorporation in Bedded Culture**

For optimum weed control, Trifluralin 10G should be incorporated into the top 2 to 3 inches of the final seedbed.

**Application Prior to Bedding**

Apply and make first incorporation with recommended equipment. The bedding operation serves as the second incorporation. Do not expose untreated soil during post-bedding operations†.

**Application After Bedding**

Knock off beds to planting height before applying. Apply Trifluralin 10G and incorporate with recommended equipment that will conform to the bed shape. Do not leave untreated soil exposed.†

† Avoid removal of treated soil from the seedbed before or during the planting operation. Exposure of untreated soil, will allow weeds to germinate in the drill row.

**Cultivation After Planting**

Areas treated with Trifluralin 10G may be shallowly cultivated without loss of weed control activity. Avoid deep cultivation that could bring untreated soil to the soil surface and result in loss of weed control.

**Recommended Incorporation Equipment**

Any recommended incorporation implement may be used alone or in combination with any other recommended implement. Two incorporation passes are necessary unless otherwise specified. The second incorporation should not be deeper than the first.

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

**Field Cultivator:** Set equipment to cut 3 to 4 inches deep and operate at 5 or more 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.

**Chisel Plow:** (For use in northern Great Plains). The chisel plow may be used for the first incorporation pass only. Any other recommended incorporation implement may be used for the second pass for row crops. The chisel plow may be used for any tillage or incorporation pass in the Summer Fallow program. Operate chisel plow 4 to 5 inches deep at 4 to 6 mph. A chisel plow is defined as having 3 rows of 14 to 18-inch sweeps spaced no more than 12 inches apart. Sweeps should be 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 speed of 6 mph. Trifluralin 10G 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 to cut 2 to 4 inches deep and operate at 6 to 8 mph. Rolling cultivators are adequate for use on coarse and medium textured soils only.

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

**P.T.O. Driven Equipment (tillers, cultivators, hoes):** Adjust to incorporate Trifluralin 10G into the top 2 to 3 inches of the seedbed with rotors spaced to provide a clean sweep of the soil. Only one incorporation is necessary. P.T.O. driven equipment should not be operated at a speed greater than 4 mph.

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

**Weeds Controlled by Trifluralin 10G**

The following weeds are controlled by preplant incorporated treatments of Trifluralin 10G.

**Grasses**

<b>Common Name</b>	<b>Scientific Name</b>
annual bluegrass	<i>Poa annua</i>
barnyardgrass (watergrass)	<i>Echinochloa crus-galli</i>
bromegrass (cheatgrass, downy brome)	<i>Bromus tectorum</i>
crabgrass (large crabgrass, smooth crabgrass)	<i>Digitaria</i> spp.
foxtail (bottlegrass, bristlegrass, giant foxtail, green foxtail, foxtail millet, pigeongrass, robust foxtail, yellow foxtail)	<i>Setaria</i> spp.
johnsongrass (from seed)	<i>Sorghum halepense</i>
junglerice	<i>Echinochloa colonum</i>
ryegrass, annual	<i>Lolium multiflorum</i>
sandbur (burgrass)	<i>Cenchrus incertus</i>
shattercane (wild cane)	<i>Sorghum bicolor</i>
signalgrass, broadleaf (brachiaria)	<i>Brachiaria platyphylla</i>
sprangletop	<i>Leptochloa filiformis</i>
stinkgrass (lovegrass)	<i>Eragrostis cilianensis</i>
oat, wild†	<i>Avena fatua</i>

**Broadleaf Weeds**

<b>Common Name</b>	<b>Scientific Name</b>
carpetweed	<i>Mollugo verticillata</i>
chickweed, common	<i>Stellaria media</i>
goosefoot	<i>Chenopodium hybridum</i>
henbit	<i>Lamium amplexicaule</i>
knotweed	<i>Polygonum aviculare</i>
lambsquarters, common	<i>Chenopodium album</i>
pigweed (carelessweed, prostrate pigweed, redroot pigweed, rough pigweed, spiny pigweed)	<i>Amaranthus</i> spp.
puncturevine (western U.S. only) (caltrop, goathead)	<i>Tribulus terrestris</i>
purslane, common	<i>Portulaca oleracea</i>
pusley, Florida (Florida purslane, Mexican clover, pusley)	<i>Richardia scabra</i>
stinging nettle (nettle)	<i>Urtica dioica</i>

†Trifluralin 10G applied as a preplant incorporated (PPI) treatment will provide partial control of wild oats. This claim is for all PPI uses except for fall application for spring seeded cereals at foxtail (pigeongrass) control rates.

**APPROVED CROPS**

**ALFALFA, ESTABLISHED:** Apply Trifluralin 10G to established alfalfa prior to weed emergence with ground or aerial equipment. A single rainfall or overhead sprinkler irrigation of 0.5 inches or more, flood irrigation or furrow irrigation after application is required to activate Trifluralin 10G. If activated using furrow irrigation, the surface of beds between furrows should be thoroughly wetted. If activation does not

occur within 3 days after application Trifluralin 10 G should be activated using incorporation equipment that will insure thorough soil mixing with minimum damage to the established alfalfa.

**Weeds Controlled:** Barnyardgrass, bromegrass (cheatgrass, downy brome), canarygrass, cheat (chess), crabgrass, foxtail, junglerice, sandbur, and wild barley.

**Application Rate per Acre:** Apply Trifluralin 10G at a rate of 20 lb./acre for all soil textures.

**Application Timing:** Trifluralin 10G may be applied during dormancy or throughout the growing season immediately after a cutting. Because Trifluralin 10G does not control established weeds, application must be made prior to the expected time of weed germination.

**Fall Application:** Apply immediately after a cutting between August 1 and October 1. When fall applied, Trifluralin 10G controls bromegrass and cheat in addition to other weeds listed above that germinate after application. Bromegrass and cheat begin to germinate in the fall with the onset of cooler weather.

**Precaution:** In the season following a 20 lb./acre Trifluralin 10G treatment, where established alfalfa is to be rotated to another crop, plant only those crops for which Trifluralin 10G can be applied as a preplant incorporated treatment or crop injury may result.

**ASPARAGUS, ESTABLISHED:** Apply Trifluralin 10G to established asparagus as a single or split application. Trifluralin 10G will suppress volunteer seedling asparagus and field bindweed when recommendations for rates, application and timing are followed. Follow recommended soil preparation, application and incorporation procedures for Trifluralin 10G.

**Application Timing:** Apply in winter or early spring after mature ferns have been removed, but before 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**

Soil Texture	Split Application Before and After Harvest	Split Application Before and After Harvest
Coarse	5.0 + 5.0 lbs.	10 lbs.
Medium	7.5 + 7.5 lbs.	15 lbs.
Fine	10 + 10 lbs.	20 lbs.

- Do not apply more than 10 lbs. per acre on coarse soils, 15 lbs. per acre on medium soils, or 20 lbs. per acre on fine soils during the calendar year.

**BEANS, DRY:** Apply and incorporate Trifluralin 10G in the spring before planting or in the fall. See instructions for fall application of Trifluralin 10G under the heading "Application Timing" in the "General Information" section of this label.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.



**BEANS, GUAR AND MUNGBEAN:** Apply and incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	7.5 lbs.

- All soils with 2-5% organic matter--7.5 lbs.

**BEANS, LIMA AND SNAP:** Apply and incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	5 lbs.
Fine	7.5 lbs.

- All soils with 2-5% organic matter--7.5%.

**CARROT:** Apply and soil incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**CASTOR BEAN:** Apply and soil incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- 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. Trifluralin 10G may be applied to direct seeded or transplant celery before planting, at planting or immediately after planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**CHICORY/ENDIVE:** Apply and soil incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs. to 12.5 lbs.

**COLE CROPS (BROCCOLI, BRUSSELS SPROUTS, CABBAGE, AND CAULIFLOWER):**

**Direct Seeded Cole Crops--**Apply and incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	5 lbs.
Fine	7.5 lbs.

- All soils with 2-5% organic matter--7.5 lbs.

**Precaution:** Direct seeded cole crops exhibit marginal tolerance to higher than recommended rates of Trifluralin 10G. Stunting or reduced stands may occur.

**Transplanted Cole Crops--**Apply and incorporate Trifluralin 10G before transplanting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**CORN--FIELD CORN ONLY:** Trifluralin 10G may be applied as a postemergence treatment following the use of a preemergence herbicide. Uniformly apply to the soil surface when crop is well established (2 true leaf stage or taller), or immediately after a cultivation, up to a height of 30 inches. Trifluralin 10G does not control established weeds.

**Incorporation Directions:** In corn, Trifluralin 10G should be incorporated within 24 hours after application. 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 maximum soil movement. 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 10G
Coarse	3.75-5 lbs.†
Medium	5-7.5 lbs.
Fine	7.5-10 lbs.

†Apply 5 to 7.5 lbs. per 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 Trifluralin 10G to sweet corn or corn grown for seed.
- Do not apply Trifluralin 10G as a preplant or preemergence treatment or crop injury may occur.

**COTTON:** Apply and incorporate Trifluralin 10G before or at planting, immediately after planting, at layby or in the fall. When incorporating Trifluralin 10G after planting (postplant), be careful not to disturb the seed.

**Broadcast Application Rates/Acre  
Fall Application**

Soil Texture	Spring† Application	Eastern U.S.††	Western U.S.†††
Coarse	5 lbs.	10 lbs.	7.5 lbs.
Medium	6.25-7.5 lbs.	10 lbs.	10 lbs.
Fine	7.5-10 lbs.	12.5 lbs.	12.5 lbs.

†Spring Application:

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

††Fall Application: Use 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: Use rates for western cotton producing areas including: Arizona, California and Nevada.

For cotton grown in areas other than those listed above, fall apply Trifluralin 10G at broadcast rates recommended for areas receiving greater than 20 inches of annual rainfall and irrigation.

**Layby Treatment:** Apply and incorporate Trifluralin 10G any time up to layby, but not less than 90 days before harvest. Apply so as to achieve a uniform distribution of granules on the soil surface beneath cotton plants. Use the same rates as 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.

**Precmergence Overlay Applications Following Trifluralin 10G:** Apply Trifluralin 10G as a preplant incorporated treatment. Additional weeds tolerant to Trifluralin 10G may be controlled using overlay applications of Cotoran, Karmex, Zorial or other products registered for use on cotton. Such applications may be made unless use following a Trifluralin 10G application is specifically prohibited by the product

label. Consult the overlay product label for additional weeds controlled, directions for use, cautions and limitations before use.

**Postemergence Applications Following Trifluralin 10G:** Apply Trifluralin 10G as a preplant incorporated treatment. Additional weeds tolerant to Trifluralin 10G may be controlled using postemergence applications of products registered for use on cotton. Such treatments may be made unless use following a Trifluralin 10G application is specifically prohibited by the product label. Consult the postemergence product label for additional weeds controlled, directions for use, cautions and limitations before use.

### COTTONWOOD TREES GROWN FOR PULP

**New Plantings:** Apply and incorporate Trifluralin 10G before planting.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- All soils with 2-5% organic matter--7.5 to 10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**Established Plantings:** Apply Trifluralin 10G in established plantings as a ground application. A single rainfall or overhead sprinkler irrigation of 0.5 inches or more or flood irrigation after application is required to activate Trifluralin 10G.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
All soils	10-20 lbs.

Application rate range may be adjusted according to weed pressure.

**Johnsongrass Suppression:** Proper soil preparation before application is necessary for satisfactory results. Use incorporation methods not injurious to the crop.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
All soils	20 lbs.

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

### CROP STUBBLE OR CROP RESIDUE

**Fall or Spring Application to Ground with Standing Crop Stubble or Crop Residue for Weed Control in Following Crop:** Trifluralin 10G may be applied in the fall or spring to ground with standing crop stubble or crop residue for weed control in the following crop. When applied in this manner, the first incorporation must occur within 72 hours after application. The second incorporation must be delayed a minimum of 5 days after the first and may occur any time up to planting. This application is limited to use on ground that has not had a primary tillage treatment following crop harvest. Following application, plant only crops on which Trifluralin 10G may be applied as a preplant incorporated treatment.

Refer to the use directions for specific crops, including application rates and other use information. Apply at the recommended broadcast application rate for the crop, soil texture, and target weed species. When fall applied, use the highest rate in the rate range allowed for the soil texture to be treated.

**Incorporation Directions:** Incorporate once using minimum tillage equipment such as the rotary harrow, field cultivator, under cutter chisel plow or other suitable tillage implement. It is desirable to loosen and mix surface soil sufficiently to trap Trifluralin 10G, but maintain a surface cover of stubble and crop residue sufficient for erosion protection. The second incorporation may occur any time prior to or in conjunction with tillage operations associated with planting.

### CUCURBITS (CANTALOUPE, CUCUMBER AND WATERMELON)

**Postemergence Application Only:** Apply and incorporate Trifluralin 10G when plants have reached the 3 to 4 true leaf stage of growth. Set incorporation equipment to move treated soil around the base of plants during incorporation.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**FLAX (Fall Application Only):** Apply and incorporate Trifluralin 10G in the fall between September 1 to December 31 in California, Minnesota, North Dakota, and South Dakota, and between October 15 and December 31 in other states. Refer to instructions for fall application under "Application Timing" in the "General Information" section of this label.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	10 lbs.

#### Special Instructions for Flax

1. Incorporation operations or other tillage performed in the spring prior to seeding should be relatively shallow so as to maintain a firm seedbed. The seedbed should be packed just prior to seeding.
2. Seeding should be done with a press drill or hoe drill. Seed into moist seedbed no more than 1.5 inches deep.
3. Flax should not be seeded until the seedbed has warmed up.

**GRAIN SORGHUM (MILO):** Trifluralin 10G may be applied as a postemergence treatment following the use of a preemergence herbicide. Uniformly apply to the soil surface when grain sorghum is 8 inches tall or taller. Trifluralin 10G does not control established weeds.

**Soil Preparation:** Cultivate before application to remove established weeds and cover the base of plants with soil. Set cultivation equipment to add approximately one inch of soil to the base of sorghum plants.

**Activation and Incorporation Directions:** In grain sorghum, Trifluralin 10G should be incorporated within 24 hours after application. 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 sufficient to 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 10G
Coarse	4-5 lbs.
Medium	5-7.5 lbs.
Fine	7.5-10 lbs.

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

**GREENS (TURNIP GREENS GROWN FOR PROCESSING--COLLARD, KALE AND MUSTARD GREENS):** Apply to greens as a preplant incorporated treatment.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	7.5 lbs.

**HOPS:** Apply and incorporate Trifluralin 10G to established hops during dormancy. Incorporate once using incorporation equipment that will insure thorough soil mixing with minimal damage to crop stand.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	6.25-7.5 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.

**MUSTARD--GROWN FOR SEED OR PROCESSING FOR FOOD IN MINNESOTA, NORTH DAKOTA AND SOUTH DAKOTA:** Apply and incorporate Trifluralin 10G before planting.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	7.5 lbs.

**OKRA:** Apply and incorporate Trifluralin 10G before planting.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**ONION GROWN FOR DRY BULBS ONLY:** A single rainfall or overhead sprinkler irrigation of 0.5 inches or more or flood irrigation after application is required to activate Trifluralin 10G. Do not apply within 60 days of harvest.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	3.75-5 lbs.
Medium	5-6.25 lbs.

- Use the lower rates where light weed pressure is anticipated.

Soil incorporation may be accomplished by operating sweep-type or rolling cultivators 2 to 4 inches deep at 6 to 8 mph. Incorporation equipment must mix Trifluralin 10G uniformly in the soil. Incorporate with two passes. The first pass must be within 24 hours of application or erratic weed control may result. Avoid covering exposed onion bulbs with treated soil during incorporation as injury to the crop may occur. Care should be taken to avoid injury to the roots during incorporation.

**Precaution:** Applied according to these directions and under normal growing conditions, Trifluralin 10G 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 from Trifluralin 10G. Under these conditions, delayed crop development or reduced yields may result.

**PEAS (DRY PEAS AND ENGLISH PEAS):** Apply and incorporate Trifluralin 10G 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**

Soil Texture	Spring Application	Fall† Application
Coarse	5 lbs.	5 lbs.
Medium	5 lbs.	6.25-7.5 lbs.
Fine	7.5 lbs.	7.5 lbs.

†Trifluralin 10G may be fall applied to Dry and English Peas in the states of Idaho, Oregon, and Washington.

**PEAS (SOUTHERN PEAS):** Apply and incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**PEANUTS (SPANISH PEANUTS, FLORUNNER, AND FLORIGIANT VARIETIES)--For Use in Texas, Oklahoma, and New Mexico:** Apply and incorporate Trifluralin 10G before planting, at planting or immediately after planting. When incorporating after planting, take care not to disturb the seed.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.

**PEPPER (Transplant Only):** Apply and incorporate Trifluralin 10G prior to transplanting. Do not apply after transplanting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**POTATOES (Not for Use in Maine):** Apply and incorporate Trifluralin 10G 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 Trifluralin 10G after potato plants have fully emerged, do not completely cover the foliage with treated soil. Likewise, do not completely cover foliage during subsequent cultivations. Be careful that incorporation equipment does not damage seed pieces or elongating sprouts.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**RADISH:** Apply and incorporate Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	7.5 lbs.

**RAPESEED (CANOLA) AND CRAMBE:** Apply and incorporate Trifluralin 10G in the spring or in late summer or in the early fall before planting. See instructions for fall application under "Application Timing" in the "General Information" section of this label.



**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	10 lbs.

**Precautions:** Do not apply to rapeseed (canola) in the state of Alaska. Where applications are made in late summer or fall, plant as rotation crops in the season following application only those crops to which Trifluralin 10G may be applied as a preplant incorporated treatment or crop injury may occur. Do not graze or harvest treated crop for livestock forage.

**SAFFLOWER:** Apply and incorporate Trifluralin 10G 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	Spring† Application	Fall†† Application
Coarse	5 lbs.	7.5 lbs.
Medium	6.25-7.5 lbs.	10 lbs.
Fine	7.5-10 lbs.	12.5 lbs.

†Spring Application:

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10-12.5 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

††Trifluralin 10G may be fall applied to Safflower in Arizona, California, Idaho, Nevada, Oregon, Utah, Washington, and Wyoming.

**SMALL GRAINS (BARLEY, DURUM AND WHEAT)**

**General Information**

**Special Precautions for Use of Trifluralin 10G on Small Grains**

Carefully follow directions for use of Trifluralin 10G on small grains to minimize potential crop stress. Under certain conditions, delayed crop emergence and/or stand reduction may occur when Trifluralin 10G 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.

If irrigation is used, 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 for Trifluralin 10G. 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 Trifluralin 10G into the upper 1 to 1.5 inches of soil. If applied after planting, set equipment so as to not disturb planted seed.

Set drills to place seed at a depth of 1 to 2 inches. 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 10G 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 Trifluralin 10G 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 10G 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 Trifluralin 10G on small grains where a dinitroaniline herbicide such as Trifluralin 10G was applied at a rate recommended for row crops (oil seeds) during the previous growing season.**

Populations of green foxtail (pigeongrass) resistant to the dinitroaniline (DNA) class of herbicides have been identified in Bottineau, McHenry, Montrail, Ramsey, Renville, Rolette, Towner and Ward counties of North Dakota in fields which have a long history of dinitroaniline herbicide use. Trifluralin 10G will not control green foxtail which has developed DNA resistance. **Therefore, the grower assumes the risk of nonperformance due to DNA resistance if Trifluralin 10G is used to control green foxtail in spring cereal grain production areas of North Dakota.** Alternative green foxtail control practices should be utilized in these fields. To prevent or delay the development or spread of DNA-resistant green foxtail in spring cereal production areas, utilize the following management practices:

1. Rotate herbicides so that the same product or same class of herbicide is not used repeatedly year after year. Trifluralin 10G and/or other dinitroaniline herbicides should not be applied in consecutive years. Use other herbicides with different modes of action such as Tiller™, Hoelon™, Dakota™, or Stampede™ in alternate years.
2. Rotate crops and use alternative weed control methods, including tillage, fallow periods and/or other herbicides with different modes of action.
3. Thoroughly clean small grains harvested from fields with confirmed resistance before using as seed, or avoid using grain from DNA-resistant fields for seed.
4. Thoroughly clean all crop residues from tillage and harvesting equipment before moving out of fields with confirmed resistance.

**Incorporation Directions and Equipment for Small Grains:** Use incorporation equipment in the manner described below unless otherwise specified in use directions. Any of the following implements listed below may be used for the first incorporation of Trifluralin 10G. Use only the disc or field cultivator for the second incorporation pass and incorporate in a different direction. Poor weed control may result if untreated soil is moved to the surface during the second incorporation pass. To avoid this problem, the second incorporation should not be deeper than the first.

**Chisel Plow:** May be used for the first incorporation pass only. Operate at 4 to 5 inches deep and 4 to 6 mph. A chisel plow is defined as having 3 rows of 14 to 18 inch sweeps on no greater than 12 inch centers. Stagger sweeps so that no soil is left unturned. Use of chisel points may result in inadequate soil mixing.

**Tandem Disc:** Operate at 3 to 4 inches deep and at 4 to 6 mph.

**Field Cultivator:** Operate at 3 to 4 inches deep and at 5 or more mph. A field cultivator is defined as having 3 to 4 rows of sweeps with "c" or "s" shaped shanks on no greater than 7 inch centers. Stagger sweeps so that no soil is left unturned.

**Application Directions for Small Grains**

**Barley, Spring Seeded--Fall Application for General Weed Control During the Following Season (For Use in Minnesota, North Dakota, and South Dakota)**

For general weed control (except for special rate or use programs) in Minnesota, North Dakota and South Dakota.

Apply in the fall for general weed control during the following growing season. Incorporate one time within 24 hours. Incorporate a second time before planting to destroy existing weeds and insure uniform distribution of Trifluralin 10G in treated soil. For best weed control results, the second incorporation should occur at least 7 days after the first.

**Note:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section.

**Planting Directions:** Set planting equipment to place seed approximately 2 inches deep.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	7.5 lbs.

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

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

Apply in the spring as a preplant incorporated treatment for foxtail (pigeongrass) control in spring seeded barley.

Incorporate one time within 24 hours. Incorporate a second time before planting to destroy existing weeds and insure uniform distribution of Trifluralin 10G in treated soil. For best weed control results, the second incorporation should occur at least 7 days after the first.

**Note:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section.

**Planting Directions:** Set planting equipment to place seed approximately 2 inches deep.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	5 lbs.
Fine	5 lbs.

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

**Barley, Spring Seeded--Spring Application for Foxtail (Pigeongrass) Control in Barley Used as a Cover Crop or in the Acreage Conservation Reserve Program  
(For Use in Minnesota, North Dakota and South Dakota)**

Apply in the spring as a preplant incorporated treatment for foxtail (pigeongrass) control in spring seeded barley used as a cover crop or to acreage in the conservation reserve programs.

Incorporate one time within 24 hours. Incorporate a second time before planting to destroy existing weeds and insure uniform distribution of Trifluralin 10G in treated soil. For best weed control results, the second incorporation should occur at least 7 days after the first.

**Note:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section.

**Planting Directions:** Set planting equipment to place seed approximately 2 inches deep.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	7.5 lbs.

**Precaution:** Use of this practice may result in a slight stand reduction. Follow the most severe grazing restrictions imposed by either the label for Trifluralin 10G or the USDA Acreage Conservation Reserve Program, whichever is longest. Consult the local ASCS office or other state agency to determine the period of the USDA grazing restriction.

**Spring Seeded Wheat or Durum--Spring, Preplant Incorporated Application for Suppression of Foxtail (Pigeongrass)  
(For Use in North Dakota West of the Red River Valley and in South Dakota)**

Apply Trifluralin 10G in the spring as a preplant, incorporated treatment for suppression of foxtail (pigeongrass) in spring seeded wheat and durum. Broadcast 4 lbs. per acre for all soil types.

**Incorporation Directions:** The first incorporation should occur within 24 hours after application. Incorporate a second time before planting to destroy existing weeds and insure uniform distribution of product in treated soil. The second incorporation should be delayed at least 14 days after the first. Operate equipment to place Trifluralin 10G into the upper 1.5 to 2 inches of soil.

**Note:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section. Use a chisel plow (first incorporation only) or a field cultivator.

**Incorporation Equipment:** See instructions for chisel plow and field cultivator in the "Small Grains" section.

**Planting Directions:** Set equipment to place seed 1.5 to 2 inches deep.

**Precaution:** Carefully follow directions under the "General Information" section for "Small Grains" except place Trifluralin 10G into the upper 1.5 to 2 inches of soil.

**Spring Seeded Wheat or Durum--Fall Applied, Preplant Incorporated for Suppression of Foxtail (Pigeongrass)**

**(For Use in North Dakota West of the Red River Valley and in South Dakota)**

Apply Trifluralin 10G in the fall as a preplant incorporated treatment for suppression of green and yellow foxtail (pigeongrass) in spring seeded wheat and durum.

**Incorporation Directions:** Incorporate one time within 24 hours. Incorporate a second time before planting to destroy existing weeds and insure uniform distribution of product in treated soil. The second incorporation should be 3 to 5 days after the first. Operate equipment to place Trifluralin 10G into the upper 1.5 to 2 inches of soil.

**Note:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section.

**Incorporation Equipment:** See instructions for chisel plow or field cultivator in the "Small Grains" section.

**Planting Directions:** Set equipment to place seed 1.5 to 2 inches deep.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	3.5-4 lbs.
Medium	3.5-4 lbs.
Fine	5 lbs.

Use the lower rate where light weed pressure is anticipated.

**Precaution:** Carefully read and follow "Special Precautions for Use of Trifluralin 10G in Small Grains" before application.

**Spring Seeded Wheat or Durum--Fall Application for Foxtail (Pigeongrass) Control During the Following Growing Season**

Apply in the fall for foxtail (pigeongrass) control during the following growing season. Incorporate one time within 24 hours. Incorporate a second time before planting to destroy existing weeds and insure a uniform distribution of Trifluralin 10G in treated soil.

**Note:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section.

**Planting Directions:** Set planting equipment to place seed approximately 2 inches deep.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	5 lbs.
Fine	5 lbs.

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

**Winter Wheat--Trifluralin 10G Preplant Incorporated for Control of Cheatgrass and Other Annual Grasses**

**(For Use in Colorado, Idaho, Kansas, Nebraska, Oregon, and Washington)**

Apply Trifluralin 10G as a preplant incorporated treatment up to 3 weeks before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	7.5 lbs.
Medium	7.5 lbs.
Fine	10 lbs.

**Incorporation Directions:** Incorporate Trifluralin 10G with a flexible tine-tooth harrow (Flextine or Melroe), set to cut 1 to 2 inches deep and operated at 3 to 6 mph. Thorough incorporation requires 2 incorporation passes over the field in different directions. Incorporate 1 time within 24 hours after application. A second incorporation pass prior to planting should occur at least 5 days after the first. Do not till the soil with a disc after Trifluralin 10G 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 into which Trifluralin 10G has been incorporated.

**Precaution:** Do not plant wheat directly into the zone of soil treated with Trifluralin 10G as crop injury (delayed emergence or stand reduction) may occur. Delayed emergence or slight stand reduction does not normally affect yield.

**Winter Wheat--Fallow Soil Application of Trifluralin 10G for Annual Grass Control Prior to Planting**

**(For Use in Colorado, Idaho, Kansas, Nebraska, Oregon, and Washington)**

Apply and shallowly incorporate Trifluralin 10G up to 4 months before planting to control cheatgrass and certain other annual grasses and broadleaf weeds during the fallow period and during the following growing season. Apply any time from May to September prior to fall planting of winter wheat.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	7.5 lbs.
Medium	7.5 lbs.
Fine	10 lbs.

**Incorporation Directions:** Incorporate Trifluralin 10G with a flexible tine-tooth harrow (Flextine or Melroe), set to cut 1 to 2 inches deep and operated at 3 to 6 mph. Thorough incorporation requires 2 incorporation passes over the field in different directions. Incorporate 1 time within 24 hours after application. A second incorporation pass prior to planting should occur at least 5 days after the first. Do not till the soil with a disc after Trifluralin 10G 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 into which Trifluralin 10G has been incorporated.

**Precaution:** Do not plant wheat directly into the zone of soil treated with Trifluralin 10G as crop injury (delayed emergence or stand reduction) may occur. Delayed emergence or slight stand reduction does not normally affect yield.

**Summer Fallow Weed Control with Trifluralin 10G Followed by Spring Seeded Wheat, Durum or Barley**

Trifluralin 10G may be applied to coarse medium and fine textured soils for control of labeled weeds in the summer fallow period and for pigeongrass (foxtail) control in wheat, durum and barley seeded the following spring.

Trifluralin 10G may be applied to standing stubble or land which has been fallowed or pretilled. Existing weeds, surface trash or crop litter should be reduced by tillage if present in quantities that will prevent uniform soil incorporation. The first incorporation is required within 24 hours after application. The

second incorporation may occur in conjunction with tillage to destroy resistant weed growth during the remainder of the fallow year. During the fallow year, susceptible weeds may not be controlled until after the second incorporation.

#### Broadcast Application Rates/Acre

Application Date	Areas with less than 10 inches annual rainfall	All other areas
Apr. 15-Apr. 30	8.75 lbs.	10 lbs.
May 1-May 31	8.75-7.5 lbs.	10-8.75 lbs.
June 1-June 30	7.5-6.25 lbs.	8.75-7.5 lbs.
July 1-July 31	6.25-5 lbs.	7.5-6.25 lbs.
Aug. 1-Aug. 31	5 lbs.	6.25-5 lbs.

Where a rate range is shown, use the higher rate per acre during the early part of an application period and the lower rate per acre during the latter part of an application period.

**Incorporation:** See recommendations on incorporation and incorporation equipment at the beginning of the "Small Grains" section.

**Seeding Directions:** Wheat, durum or barley should be seeded approximately 2 inches deep.

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

**SOYBEANS:** Apply and incorporate Trifluralin 10G in the spring prior to 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	Spring† Application	Fall†† Application
Coarse	5 lbs.	10 lbs.
Medium	7.5 lbs.	10 lbs.
Fine	10 lbs.	12.5 lbs.

†Spring Application:

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.
- All soils with 5-10% organic matter--10-12.5 lbs.

††Fall application use rates for soybeans grown in Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southwestern Missouri (Bootheel), North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. For soybeans grown in areas other than those listed above, fall apply Trifluralin 10G at broadcast rates recommended for areas receiving greater than 20 inches of annual rainfall and irrigation.

**Precaution:** Do not fall apply Trifluralin 10G in the fall to soils which are wet or subject to prolonged periods of flooding, or where rice was grown the previous year.

#### Preemergence Overlay Applications Following Trifluralin 10G (Not for Use in California)

Apply Trifluralin 10G as a preplant incorporated treatment. Additional weeds tolerant to Trifluralin 10G may be controlled using preemergence overlay applications of Canopy, Dual, Gemini, Lasso, Lexone, Lorox, Lorox Plus, Preview, Pursuit†, Scepter††, Sencor, or other products registered for use on soybeans. Such treatments may be made, unless use following a Trifluralin 10G application is specifically prohibited

by the product label. Consult the overlay product label for additional weeds controlled, directions for use, cautions and limitations before use.

†The use of Pursuit is limited to certain states. Use Pursuit as an overlay treatment following Trifluralin 10G only in states specified on the Pursuit label.

††Use of Scepter is limited to certain states. Do not use Scepter as a preemergence overlay application following a Trifluralin 10G preplant incorporated treatment in the "Northern Use Area" as defined by the Scepter label.

### **Postemergence Treatments Following Trifluralin 10G (Not for Use in California)**

Apply Trifluralin 10G as a preplant incorporated treatment. Additional weeds tolerant to Trifluralin 10G may be controlled using postemergence applications of Basagran, Blazer, Classic, Cobra, Galaxy, Pinnacle, Pursuit†, Reflex, Scepter††, Storm, Tackle, or other products registered for use on soybeans. Such treatments may be made, unless use following a Trifluralin 10G application is specifically prohibited by the product label. Consult the overlay or postemergence product label for additional weeds controlled, directions for use, cautions, and limitations before use.

†The use of Pursuit is limited to certain states. Use Pursuit as a postemergence treatment following Trifluralin 10G only in states specified on the Pursuit label.

††Use of Scepter is limited to certain states. Do not use Scepter as a postemergence application following a Trifluralin 10G preplant incorporated treatment in the "Northern Use Area" as defined by the Scepter label.

**SUGAR BEETS:** Apply and incorporate Trifluralin 10G when sugar beets are 2-6 inches tall.

**Precautions:** Exposed sugar beet roots should be covered with soil before applying Trifluralin 10G to reduce the possibility of girdling. When incorporating, set equipment to move treated soil into the row. Set incorporation equipment carefully so as to prevent damage to sugar beet tap root.

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

<b>Soil Texture</b>	<b>Trifluralin 10G</b>
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	6.25-7.5 lbs.

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

**SUGARCANE:** Apply and incorporate Trifluralin 10G twice a year. Make the first application in the fall on firmly packed beds immediately after the seed pieces are planted. Make a second application in the spring before or shortly after the cane emerges. Loosen rain-packed beds 2-3 inches deep before spring application. Take care that incorporation equipment does not damage the seed pieces or emerging shoots.

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

<b>Soil Texture</b>	<b>Trifluralin 10G</b>
All soil textures	10-20 lbs.

Application rate range may be adjusted according to weed pressure.



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

Apply and incorporate Trifluralin 10G in the spring from shortly before or after cane emergence until layby. Apply after beds have been shaved or false shaved. Loosen rain-packed beds 2-3 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 at 4 to 6 mph. Two incorporation passes are necessary.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
All soil textures	10-20 lbs.

Application rate range may be adjusted according to weed pressure.

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

Apply and incorporate Trifluralin 10G on plant or ratoon cane. Follow use directions in preceding section for layby application.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
All soil textures	10-20 lbs.

Application rate range may be adjusted according to weed pressure.

**SUNFLOWER:** Apply and incorporate Trifluralin 10G in the spring or in the fall between September 15 and December 31 in California, Minnesota, North Dakota, and South Dakota, and between October 15 and December 31 in other states.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5-10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**TOMATO:** For direct seeded tomato, apply Trifluralin 10G at blocking or thinning to the soil between rows and beneath plants and incorporate. For transplant tomato, apply and incorporate prior to transplanting only. Do not apply Trifluralin 10G after transplanting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5-10 lbs.

- Coarse and medium soils with 2-5% organic matter--7.5 lbs.
- Fine soils with 2-5% organic matter--10 lbs.

- All soils with 5-10% organic matter--10 lbs.
- 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 Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	6.25-7.5 lbs.
Fine	7.5 lbs.

- All soils with 2-5% organic matter--7.5-10 lbs.
- All soils with 5-10% organic matter--10 lbs.
- 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 Trifluralin 10G before planting.

**Broadcast Application Rates/Acre**

Soil Texture	Trifluralin 10G
Coarse	5-7.5 lbs.
Medium	7.5-15 lbs.
Fine	15-20 lbs.

- All soils with 2-10% organic matter--15-20 lbs.
- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

**Note:** Do not use more than 10 lbs. per acre on heat treated grape rootings.

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

Trifluralin 10G 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 to the soil surface 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 10G
All soil textures	10-20 lbs.

Use the higher rate in the rate range for longer term weed control.

**WARRANTY LIMITATIONS AND DISCLAIMER**

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the DIRECTIONS FOR USE when used under normal conditions. THIS IS THE ONLY WARRANTY MADE ON THIS PRODUCT. NO OTHER EXPRESS AND NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OUTSIDE OF THIS LABEL. Therefore, 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 (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or user must promptly notify seller, in writing, of any claims to be eligible to receive either remedy given below. The EXCLUSIVE REMEDY OF THE BUYER OR USER and the LIMIT OF LIABILITY of seller will be one of the following, at the election of the seller:

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

The seller will not be liable for consequential or incidental damages or losses.

The terms of this Warranty Limitations and Disclaimer cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations and Disclaimer in any manner.

### SUPPLEMENTAL LABELING

#### For Distribution and Use Only in Montana

#### Trifluralin 10G for Weed Control in Rapeseed (Canola), Safflower and Sunflower

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Trifluralin 10G before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of Trifluralin 10G according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Trifluralin 10G.

#### Directions for Use

Apply and incorporate Trifluralin 10G in the fall after September 1 or in the spring before planting. Make only one application of Trifluralin 10G per crop cycle. Follow soil preparation, application and incorporation instructions in the Trifluralin 10G product label.

#### Broadcast Application Rates/Acre

Soil Texture	Trifluralin 10G
Coarse	5 lbs.
Medium	7.5 lbs.
Fine	10 lbs.

Use 7.5 to 10 pounds of Trifluralin 10G per acre on coarse and medium soils with 2-5% organic matter.

#### Precautions

**Rotational Crop Planting Restriction:** Plant only spring seeded barley (grown under irrigated conditions), rapeseed, safflower or sunflower as rotational crops in the crop year following the crop treated with Trifluralin 10G. If one of these specified crops is not planted, the land should be left idle or fallow for the entire crop year following the crop treated with Trifluralin 10G.