

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

Causes substantial but temporary eye injury. Avoid contact with eyes, skin, or clothing. Wear safety glasses when handling. Wash thoroughly with soap and water after handling. Harmful if absorbed through skin. Avoid breathing dust. Remove contaminated clothing and wash before reuse.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Do not apply directly to water or wetlands (swamps, bogs, or marshes). Drift or runoff from treatment areas may be hazardous to aquatic organisms in neighboring aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not store near heat or open flame.

**DIRECTIONS FOR USE**

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

**RE-ENTRY STATEMENT**

Do not enter treated areas without protective clothing until dusts have settled. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written and oral warnings must include the following information: **WARNING**—Area treated with trifluralin on (date of application). Do not enter without proper protective equipment until dusts have settled. In case of accidental exposure, follow instructions under Statement of Practical Treatment.

# GOWAN TRIFLURALIN 10G

**GRANULAR HERBICIDE**

Active Ingredient:		% by weight
Trifluralin (alpha, alpha, alpha-trifluoro-2,6-dinitro- <i>N,N</i> -dipropyl- <i>p</i> -toluidine)	.....	10%
Inert Ingredients	.....	90%
	Total	100%

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Precaucion al usuario. Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

**STATEMENT OF PRACTICAL TREATMENT**

IF SWALLOWED, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.  
IF INHALED, remove victim to fresh air. Apply artificial respiration if indicated.  
IF IN EYES, flush with plenty of clear water for at least 15 minutes. Get medical attention.  
IF ON SKIN, wash with soap and water.

NOT REVIEWED

In Accordance with PR Notice 82-8.  
Net Contents \_\_\_\_\_ Pounds  
Registered with EPA on \_\_\_\_\_ Dated 4/14/88

*Gowan Company*

EPA Reg. No. 10163-120  
EPA Est. No. 10163-AZ-1

P.O. Box 5696  
Yuma, AZ 85364

**STORAGE AND DISPOSAL**

DO NOT contaminate water, food or feed by storage or disposal.  
**STORAGE:** Store in original bag only. In case of puncture or spill, contain material and dispose of waste.  
**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:** Do not reuse bag. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state or local authorities, by burning. If burned, stay out of smoke.

**CROP USE DIRECTIONS**

See directions for use booklet.

**NOTICE ON CONDITIONS OF SALE**

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

4/88

# Directions for Use

## Gowan Company

P.O. Box 5696

Yuma, Arizona 85364

EPA Reg. No. 10153-120

### CROP USE PRECAUTIONS

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

In Arizona, Colorado, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, sugar beets, red beets or spinach should not be planted for 12 months after a spring application or for 14 months after a fall application. 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 or oats 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 of Gowan Trifluralin 10G.

If less than 20 inches of total water was used to produce the crop, do not plant sorghum, proso millet or oats for 18 months after an application. 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" of rainfall per year, moldboard plow before planting sugar beets where a spring application was made the previous season.

**Vegetable Growing Area:** Vegetable crops other than those listed on this label should not be planted within 5 months following the application of Gowan Trifluralin 10G.

### DIRECTIONS FOR USE

Read all directions carefully before applying.

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

Gowan Trifluralin 10G is a preemergence herbicide which is incorporated in to the soil to provide long lasting control of annual grasses and broadleaf weeds. This product controls weeds as they germinate but will not control established weeds.

### WEEDS AND GRASSES CONTROLLED BY GOWAN TRIFLURALIN 10G GRASSES

Annual bluegrass	Poa annua
Barnyardgrass	Echinochloa sp.
(Watergrass)	
Brechione	Brechione sp.
(Signalgrass)	

(Yellow foxtail)	Elymus indica
Goosegrass	
(Silver crabgrass)	
(Silvergrass)	
(Wiregrass)	
(Yardgrass)	
Johnsongrass (from seed)	Sorghum halepense
Jungle rice	Echinochloa colonum
Sandbur	Cenchrus incertus
(Burggrass)	
Sprangletop	Leptochloa filiformis
Stinkgrass	Eragrostis cikanensis
(Lovegrass)	
Wild Cane	Sorghum bicolor
(Shattercane)	
Wild Oat**	Avena fatua
Woolly cupgrass	Echinochloa villosa

\*\*Gowan Trifluralin 10G applied as a preplant incorporated (PPI) treatment will provide partial control of wild oats. This claim is for all PPI uses except fall applications for spring seeded cereals.

### BROADLEAF WEEDS

Carpetweed	Mollugo verticillata
Chickweed	Stellaria media
Florida pusley	Richardia scabra
(Florida purslane)	
(Mexican clover)	
(Pusley)	
Goosefoot	Chenopodium hybridum
Henbit	Lamium amplexicaule
(fall application only)	
Knotweed	Polygonum aviculare
Lambsquarters	Chenopodium album
Pigweed	Amaranthus spp.
(Carelessweed)	
(Prostrate pigweed)	
(Redroot pigweed)	
(Rough pigweed)	
(Spiny pigweed)	
Puncturevine (Western U.S. only)	Tribulus terrestris
(Catfoot)	
(Goathead)	
Purslane	Portulaca oleracea
Stinging nettle	Urtica dioica
(Nettle)	

### SOIL PREPARATION

**Crop Residues or Existing Weeds:** Apply Gowan Trifluralin 10G to soil that has a manageable trash level, been tilled or to soil that has standing stubble. A manageable level of such ground cover would allow the granules to be uniformly incorporated into the top 2 to 3 inches of the final seedbed.

**Roughness:** The soil surface should be smooth enough so the application and incorporation equipment can be operated efficiently and at speeds which ensure a uniform application and incorporation of Trifluralin.

**General Soil Conditions:** To assure uniform incorporation of Trifluralin, soil moisture conditions should be such that large clods can be broken up during the incorporation process.

### SOIL TEXTURE GUIDE

The amount of trifluralin applied to will vary with the soil texture and organic matter. A fine textured soil will require more trifluralin per acre than a coarse soil. Choose the proper rate for each application based on the following soil texture group and specific recommendations. Do not exceed recommended rates.

Soil Texture	Soil Classifications
Coarse soils: (Light)	Sand, loamy sand, sandy loam
Medium soils	Loam, silty clay loam*, silt loam, silt, sandy clay loam
Fine soils (Heavy)	Clay, clay loam, silty clay loam*, silty clay, sandy clay, sandy clay loam*

\*Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loam soils are predominately sand or silt, they are usually classified as medium textured soils. If they are predominately clay, they are usually classified as fine textured soils.

## APPLICATION DIRECTIONS

Apply Gowan Trifluralin 10G with a properly calibrated herbicide applicator that will apply the granules uniformly. Calibrate the applicator according to the manufacturer's directions and check frequently during the application to be certain that equipment is working properly. Avoid concentration of the material in narrow bands.

Freezing will not adversely affect this product. If product is frozen at time of application, agitate or thaw to produce a free-flowing granule.

## INCORPORATION DIRECTIONS

### Incorporation Equipment—General Directions

Use incorporation equipment that mixes Gowan Trifluralin 10G into the top 2 to 3 inches of the final seedbed, or erratic weed control and/or crop injury may result. Incorporation equipment such as a disc will mix the granules approximately half as deep as the equipment is set to operate. For example, a disc set to cut 4 inches deep will incorporate most of the granules within the top 2 inches of the final seedbed.

### Incorporation Before Planting

Gowan Trifluralin 10G must be incorporated one time within 24 hours after application. The second incorporation must be delayed at least five (5) days after the first is completed prior to planting, and should be run in a different direction from the first. Incorporate uniformly into the top 2 to 3 inches of the final seedbed.

### Incorporation After Planting

Check specific crop for incorporation directions after planting.

### Incorporation in Bedded Culture

For effective weed control, incorporate into the top 2 to 3 inches of the final seedbed.

**Application prior to bedding:** Apply and incorporate one time with recommended equipment. The bedding operation serves as the second incorporation. Do not expose untreated soil during post-bedding operations.\*

**Application after bedding:** Knock off beds to planting height before applying Gowan Trifluralin 10G. Apply and incorporate with recommended equipment that will conform to bed shape. Do not leave untreated soil exposed.\*

\*Avoid removal of treated soil from the seedbed before or during the planting operation. This would expose untreated soil, allowing weeds to germinate in the drill row.

### Recommended Equipment

Any recommended incorporation tool may be used alone or in combination with any other recommended tool. Two incorporation passes are required unless specifically stated. The second incorporation should not be deeper than the first.

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

**Field Cultivator:** Set to cut 3 to 4 inches deep and operate at 5 mph or more. 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 tool 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 at 4-5 inches deep at 4-6 mph. A chisel plow is defined as having 3 rows of 14 to 18 inch sweeps on no greater than 12 inch center. Stagger sweeps so that no soil is left unturned. Chisel points should not be used.

**Combination Seedbed Conditioners:** Set to cut 3 to 4 inches deep and operate at a speed of at least 5 mph. These implements are defined as three or more tillage devices combined and used as a single tool. 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 of flexline harrow, followed by a ground driven reel or basket.

**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 to 4 inches deep and operate at 5 to 8 mph.

**P.T.O. Driven Equipment** (tillers, cultivators, hoes) Adjust to incorporate 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 including the flexible tine-tooth harrow, (Flexline, Melroe), is also recommended but only for the special programs for which it is specified in this label.

### CULTIVATION AFTER PLANTING

Treated soil may be shallow cultivated without reducing the weed control activity. Do not cultivate deeper than the treated soil since this may bring untreated soil to the surface, and poor weed control may result.

## CROP RECOMMENDATIONS

These recommendations are given as the broadcast rates per acre. Apply any time after January 1 when the soil can be worked and is suitable for good incorporation—see specific crop for recommendations. Where a rate range is shown, use the lower rate for coarser soils or soils with lower organic matter. This product should not be used on soils containing more than 10% organic

control in established alfalfa either by rainfall/overhead sprinkler irrigation, flood irrigation, or by mechanical incorporation.

Apply to established alfalfa stands prior to weed emergence at a broadcast rate of 20 pounds per acre for all soil textures. Use properly calibrated ground or aerial application equipment. A single rainfall or overhead sprinkler irrigation of 0.5 inches or more or flood irrigation after application is required to activate Gowan Trifluralin 10G. If this does not occur within three (3) days after application, activate using incorporation equipment that will ensure thorough soil mixing with minimum damage to the established alfalfa.

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

## FOR THE FOLLOWING CROP GROUPING, USE THE RATE TABLE BELOW.

### Castor Bean

### Cole Crops—Transplant

(Broccoli, Brussels Sprout, Cabbage and Cauliflower)

Apply and incorporate prior to transplanting only.

### Okra

### Pepper—Transplant

Apply and incorporate prior to transplanting only.

### Southern Pea—(Before planting only.)

Apply and incorporate Gowan Trifluralin 10G between planting at planting or immediately after planting unless otherwise indicated.

### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
Coarse	5 (pounds)	5 (pounds)
Medium	6 1/4 - 7 1/2	7
Fine	7 1/2	10

\*Use 7 1/2 pounds per acre on coarse and medium textured soils and 10 pounds on fine soils with 2-5% organic matter; use 10 pounds on all soils with 5-10% organic matter.

### Cole Crops Direct Seeded

(Broccoli, Brussels Sprout, Cabbage and Cauliflower)

For direct seeded cole crops, apply and incorporate Gowan Trifluralin 10G before planting at a broadcast rate of 5 pounds per acre on coarse and medium soils and 7 1/2 pounds on fine soils and soils with 2-5% organic matter. Direct seeded cole crops have exhibited marginal tolerance to recommended rates of Gowan Trifluralin 10G. Stunting or reduced stands may occur.

### Curcubits Postplant Emerged

(Cantaloupe, Cucumber and Watermelon)

### Western United States including Texas

Apply Gowan Trifluralin 10G as a broadcast granule to the soil between the rows and beneath plants which are in the 3 to 4 true leaf stage.

### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
Coarse	5 (pounds)	5 (pounds)
Medium	6 - 7	7
Fine	7	10

\*Use 7 1/2 pounds per acre on coarse and medium textured soils and 10 pounds on fine soils with 2-5% organic matter; use 10 pounds on all soils with 5-10% organic matter.

Set incorporation equipment to throw treated soil around the plants during incorporation.

### Fruit and Nut Crops and Vineyards

For all areas receiving less than 20" average annual rainfall.

For all new plantings of almond, apricot, citrus, nectarine, peach, pecan and walnut trees, apply and incorporate before planting at a broadcast rate of 5 pounds per acre on coarse soils, 6 1/4 to 7 1/2 pounds per acre on medium soils, 7 1/2 pounds on fine soils, 7 1/2 to 10 pounds on soils with 2-5% organic matter, and 10 pounds on soils with 5-10% organic matter.

For new plantings of vineyards, apply and incorporate before planting at a broadcast rate of 5 to 7 1/2 pounds per acre on coarse soils, 7 1/2 to 15 pounds on medium soils, and 15 to 20 pounds on fine soils or soils with 2 to 10% organic matter. Do not use more than 10 pounds per acre on heat treated grape rootings.

For postplant applications on bearing or nonbearing, established plantings

## Cotton Gowan Trifluralin 10G Alone

This product can be applied and incorporated before or at planting, immediately after planting, or at layby.

### Cotton—Preemergence Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
	(pounds)	(pounds)
Coarse	5	5
Medium	6 1/4 - 7 1/2	7 1/2
Fine	7 1/2	10

\*Use 7 1/2 pounds per acre on coarse and medium textured soils and 10 pounds on fine soils with 2.5% organic matter; use 10 pounds on all soils with 5-10% organic matter.

### Cotton—Postplant

When incorporating after planting, postplant, be careful not to disturb the seed.

### Cotton—Layby

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

### Cotton—Fall Application:

Apply and incorporate any time between October 15 and 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 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 to soils which are wet or subject to prolonged periods of flooding.

### Broadcast Rates Per Acre—Fall Application Only:

In Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, Bootheel, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee and Texas, apply and incorporate at a broadcast rate of 10 pounds per acre on coarse and medium soils and 12 1/2 pounds on fine soils.

In Arizona, California and Nevada, apply and incorporate at a broadcast rate of 7 1/2 pounds per acre on coarse soils, 10 pounds on medium soils, and 12 1/2 pounds on fine soils.

## Dry Bean Gowan Trifluralin 10G Alone

Apply and incorporate Gowan Trifluralin 10G before planting using the following rates:

### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving more than 20" average annual rainfall*
	(pounds)	(pounds)
Coarse	5	5
Medium	6 1/4 - 7 1/2	7 1/2
Fine	7 1/2	10

\*Use 7 1/2 pounds per acre on coarse and medium soils and 10 pounds on fine soils with 2.5% organic matter; use 10 pounds on all soils with 5-10% organic matter.

### Dry Bean—Fall Application

Apply and incorporate any time between October 15 and December 31 at a broadcast rate of 5 pounds per acre on coarse soils, 6 1/4 to 7 1/2 pounds on medium soils, and 7 1/2 pounds on fine soils. Destroy established weeds during seedbed preparation.

## Flax Fall Application

Apply and incorporate in the fall from September 1 to December 31.

### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G
	(pounds)
Coarse	5
Medium	7 1/2
Fine	10

### Special Instructions for Flax

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

## Beans (Lima Bean and Snap Bean):

Apply and incorporate before planting at a broadcast rate of 5 pounds per

## Mustard Grown for seed or processing for feed in Minnesota, Montana and North Dakota:

Apply and incorporate before planting at a broadcast rate of 5 pounds per acre on coarse soils and 7 1/2 pounds on medium and fine soils.

## Peanut

### (Spanish Peanut in Texas and Oklahoma):

Apply and incorporate before planting, at planting or immediately after planting of a broadcast rate of 5 pounds per acre on coarse soils. When incorporating after planting, take care not to disturb the seed.

## Rape

Apply and incorporate in the spring before planting or in the fall after September 1.

### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G
	(pounds)
Coarse	5
Medium	7 1/2
Fine	10

## Safflower

Apply and incorporate in the spring before planting or in the fall between October 15 and December 31.

### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving more than 20" average annual rainfall*
	(pounds)	(pounds)
Coarse	5	5
Medium	6 1/4 - 7 1/2	7 1/2
Fine	7 1/2	10

\*Use 7 1/2 pounds per acre on coarse and medium textured soils and 10 pounds on fine soils with 2.5% organic matter; use 10 to 12 1/2 pounds on all soils with 5-10% organic matter.

### Safflower—Fall Application—(Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming):

Apply and incorporate 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 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.

Apply and incorporate at a broadcast rate of 7 1/2 pounds per acre on coarse soils, 10 pounds on medium soils, and 12 1/2 pounds on fine soils. Do not apply in the fall to soils which are wet or are subject to prolonged periods of flooding.

## Soybean Gowan Trifluralin 10G Alone

### Soybean—Preemergence Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G*
	(pounds)
Coarse	5
Medium	7 1/2
Fine	10

\*Use 7 1/2 pounds per acre on coarse and medium textured soils and 10 pounds on fine soils with 2.5% organic matter; use 10-12 1/2 pounds on all soils with 5-10% organic matter.

### Soybean—Fall Application

Apply and incorporate 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 tops into furrows. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting. Do not apply in the fall to soils which are wet, are subject to prolonged periods of flooding, or where rice was grown the previous year.

For soybeans grown in Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, south-eastern Missouri, Bootheel, North Carolina, Oklahoma, South Carolina, Tennessee and Texas, apply Gowan Trifluralin 10G at a broadcast rate of 10 pounds per acre on coarse and medium soils and 12 1/2 pounds on fine soils.

For soybeans grown in states other than those listed above, apply and incorporate at a broadcast rate of 5 pounds per acre on coarse soils, 7 1/2 pounds on medium soils, 10 pounds on fine soils, 7 1/2 pounds on coarse soils with 2.5% organic matter, and 10 to 12 1/2 pounds on soils with 5-10% organic matter.

## Sugar Beet

Broadcast overlap when plants are between 2 and 6 inches tall at a rate of 5 pounds per acre on coarse soils and 6 1/4 to 7 1/2 pounds on medium and fine soils. Use the higher rate for medium and fine soils for sugar beets.

soil toward the plants in the row. Be careful that the incorporation machine does not damage the sugar beet taproot.

**Precautions:** Exposed sugar beets should be covered with soil before application to reduce the possibility of girdling.

### Sunflower Gowan Trifluralin 10G Alone

Apply and incorporate in the spring or in the fall between October 15 and December 31. Follow recommended soil preparation, application and incorporation procedures.

#### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving more than 20" average annual rainfall*
	(pounds)	(pounds)
Coarse	5	5
Medium	6 1/2	7 1/2
Fine	7 1/2	10

\*Use 7 1/2 to 10 pounds per acre on coarse and medium textured soils with 2.5% organic matter and 10 pounds on all soils with 5-10% organic matter.

### Tomato

For direct seeded tomato, apply at blanking or tinning to the soil between rows and beneath the plants, and incorporate. For transplant tomato, apply and incorporate before transplanting. **Do not apply Gowan Trifluralin 10G after transplanting.**

#### Broadcast Rates Per Acre

Soil Texture	Gowan Trifluralin 10G	
	Areas receiving less than 20" average annual rainfall*	Areas receiving more than 20" average annual rainfall*
	(pounds)	(pounds)
Coarse	5	5
Medium	6 1/2	7 1/2
Fine	7 1/2	10

\*Use 7 1/2 pounds per acre on coarse and medium textured soils and 10 pounds on fine soils with 2.5% organic matter. Use 10 pounds on all soils with 5-10% organic matter.

### Wheat (Spring), Durum and Barley Summer Fallow

Apply to coarse, medium or fine textured soils for control of labeled weeds in the summer fallow period, and for pigeongrass control in wheat, durum, and barley seeded the following spring.

This product may be applied to ground that has a non-degradable trash level, been fallow, pre-tilled, or to soil left with a stubble cover. The first incorporation is required within 24 hours after application. The second incorporation and subsequent tillage may be done whenever necessary to destroy resistant weed growth during the remainder of the fallow year. Susceptible weeds may not be controlled until after the second incorporation.

#### Broadcast Rates Per Acre

Application Date	Gowan Trifluralin 10G
	(pounds)
April 15 to May 31	10
June 1 to June 30	8 1/2
July 1 to July 31	7
August 1 to August 31	6 1/2

#### Incorporation Directions:

Incorporate Gowan Trifluralin 10G one time within twenty-four hours after application. Care should be taken to ensure that the second incorporation and subsequent tillages are more shallow than the first. Incorporate and till treated ground with the following equipment:

1. Chisel plow  
Operate at 4-5 inches deep at 4-6 mph. A chisel plow is defined as having sweeps of 14 to 18 inch sweeps on a greater than 12 inch center. Stagger sweeps so that no soil is left unturned. Chisel points should not be used.
2. Tandem disc  
Operate at 3-4 inches deep at 4-6 mph.
3. Field cultivator  
Operate at 3-4 inches deep at 5 mph or more. A field cultivator is defined as having 3 to 4 rows of sweeps with "c" or "s" shaped shanks spaced 7 inches or less and staggered so that no soil is left unturned.

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

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

#### Wheat (Spring), Durum and Barley—Fall Application

For the control of foxtail (pigeongrass), apply at a broadcast rate of 5 pounds per acre on coarse and medium soils and 7 1/2 pounds per acre on fine soils.

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

1. Chisel plow  
May be used for first pass only. Operate at 4-5 inches deep at 4 to 6 mph.

A chisel plow is defined as having 3 rows of 14 to 16 inch sweeps on a greater than 12 inch center. Stagger sweeps so that no soil is left unturned. Chisel points should not be used.

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

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

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

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

### Wheat (Winter)

#### (Idaho, Montana, Oregon and Washington):

Gowan Trifluralin 10G may be applied for preplant preemergence control of cheatgrass and other annual grasses and broadleaf weed which it controls. Apply any time up to three weeks prior to planting. Broadcast at a rate of 7 1/2 pounds per acre on coarse and medium soils and 10 pounds on fine soils.

**Incorporation Directions:** Incorporate into the soil with a flexible tine-tooth harrow (Flexline or Melroe), set to cut one to two inches deep and operate at 3 to 6 mph.

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

**Precaution:** Do not plant wheat directly into the treated zone of soil as injury to the crop (delay in emergence or stand reduction) may occur. Delayed emergence or slight stand reductions do not normally affect yield.

#### Wheat (Winter)—Follow Soil Application (Idaho, Montana, Oregon and Washington)

This product applied and shallowly incorporated into fallow soil up to 10 months ahead of planting will control cheatgrass and certain annual grasses and broadleaf weeds.

Broadcast rates are 7 1/2 pounds per acre on coarse and medium soils and 10 pounds on fine soils. Apply any time from May to September prior to the fall planting of winter wheat.

**Incorporation Directions:** Incorporate with a flexible tine-tooth harrow (Flexline or Melroe), set to cut one to two inches deep and operated at three to six mph. For thorough incorporation, two passes of the equipment in different directions over the field are necessary. Incorporate one time within 24 hours after application followed by a second incorporation at least five days after the first prior to seeding. Do not till the soil with a disc after the granules have been incorporated with a flexible tine harrow.

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

**Precaution:** Do not plant wheat directly into the treated zone of soil as injury to the crop (delay in emergence or slight stand reduction) may occur. Delayed emergence or slight stand reductions do not normally affect yield.

### FALL APPLICATION

General: (Areas receiving more than 20" average annual rainfall.) See specific crop for recommendations. For all crops for which there are no specific fall application instructions and for which Gowan Trifluralin 10G is recommended as a preemergence application, use the rates listed for spring applications. Do not apply in the fall for sugar beets, potatoes and direct-seeded tomatoes.

**In most states:** Apply and incorporate Gowan Trifluralin 10G any time between October 15 and December 31.

**In California, Minnesota, Montana, North and South Dakota:** Apply and incorporate Gowan Trifluralin 10G any time between September 1 and December 31. Ground may be left flat or bedded up over winter. On bedded ground, knock beds down to desired heights 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 in the fall to soils which are wet, are subject to prolonged periods of flooding, or where the crop was grown the previous year.