



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

November 13, 2024

Luz Chan  
lchan@drexchem.com  
DREXEL CHEMICAL COMPANY

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Addition of proposed sites  
Product Name: DREXEL TRIFLURALIN 10G  
Admin Number: 19713-701  
EPA Receipt Date: 09/17/2024  
Action Case Number: 00633036

Dear Luz Chan:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have questions, please contact Margaret Golembiewski via email at [golembiewski.margaret@epa.gov](mailto:golembiewski.margaret@epa.gov).

Sincerely,

*Kable Bo Davis*

Kable Bo Davis, Senior Advisor  
HB, RD  
Office of Pesticide Programs

**Drexel**

# Trifluralin 10G

A pre-emergence herbicide for use in Alfalfa; Asparagus; Beans; Bermudagrass Grown For Seed (AZ & CA Only); Carrots; Castor Beans; Celery; Chicory/Endive; Cole Crops; Corn; Cotton and Cottonseed; Cottonwood Trees Grown for Pulp; Crop Stubble or Crop Residue; Cucurbits; Eggplant; Flax; Forage Legumes; Fruit and Nut Crops and Vineyards; Grain Sorghum (Milo); Greens (Collard, Kale, Mustard, Turnip); Hops; Kenaf; Oilseed; Okra; Onions (Dry Bulb); Peanuts; Peas (English, Dry, Southern); Pepper; Potatoes; Radish; Safflower; Small Grains (Barley, Durum, Wheat); Soybeans; Spearmint and Peppermint; Sugar Beets; Sugarcane; Tomatoes; and for the Control of Annual grasses and Broadleaf weeds in Container Grown Ornamentals, Landscape Ornamentals, Nursery Stock, Groundcovers, Established Flowers, Ornamental Bulbs, Non-bearing Fruit and Nut Trees, Non-bearing Vineyards, Christmas Tree Plantations; Non-cropland Areas; Pot Nursery Production of Trees & Shrubs; and Under Paved Surfaces.

## ACTIVE INGREDIENT:

Trifluralin..... 10.0%

OTHER INGREDIENTS: ..... 90.0%

TOTAL: ..... 100.0%

Contains 5 pounds of active ingredient per 50 pound bag.

## KEEP OUT OF REACH OF CHILDREN CAUTION

[See FIRST AID Below]

[See Side (Back) Panel for FIRST AID]; [See Page \_\_\_\_ for FIRST AID]

[See Container Labeling for (FIRST AID and) Complete Directions for Use]

[See (Attached) Booklet (Container Labeling) for Complete Directions for Use]

EPA Reg. No. 19713-701

EPA Est. No. 19713-XX-X

Net Content: 50 Lbs. (22.68 Kg)

### FIRST AID

#### IF IN EYES:

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact CHEMTREC at 800-424-9300 for emergency medical treatment information.

**ACCEPTED**

11/13/2024

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under

EPA Reg. No. 19713-701

701SP-1124\*Pending

## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:** Long-sleeved shirt and long pants; chemical-resistant gloves including barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils or viton  $\geq$  14 mils; shoes plus socks; and protective eyewear.

### **USER SAFETY REQUIREMENTS**

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

### **USER SAFETY RECOMMENDATIONS**

**Users should:** 1) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 2) 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 cleaning equipment or disposing of equipment washwaters.

## **NON-TARGET ORGANISM ADVISORY STATEMENT**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## **PRODUCT INFORMATION**

TRIFLURALIN 10G is a pre-emergence herbicide that is incorporated into 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.

## **DIRECTIONS FOR USE**

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

Read all directions for use carefully before applying.

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 (REI). 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 REI of 12 hours.**

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

## WEED RESISTANCE MANAGEMENT

TRIFLURALIN	GROUP	3	HERBICIDE
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For resistance management, this product is a Group 3 mode of action herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 3 mode of action herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management directions for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Drexel Chemical Company representatives at (901) 774-4370.

## USE INFORMATION

- This product must be soil-incorporated within 24 hours of application either by mechanical incorporation or at least 0.5 acre inch of water (rainfall, irrigation). If a second incorporation is needed it should be delayed 3 to 5 days after the first incorporation and be completed prior to planting.
- Applied according to the directions and under normal growing conditions, this product will not harm the treated crop. Over-application may result in crop injury or 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.
- Application of this to soils that are wet or are subject to prolonged periods of flooding may result in poor weed control.

- **Corn, Proso millet, Oats, Sorghum (Milo) and Annual or Perennial Crops or Grass Mixtures:** In Arizona, Colorado, California, Idaho, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, delay planting Corn, Proso millet, Oats, Sorghum (Milo) and annual or perennial grass crops or grass mixtures for 12 months after a Spring application or 14 months after a Fall application of this product to avoid the possibility of crop injury. If land has not been irrigated, do not plant these crops 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, delay planting Proso millet, Oats, Sorghum (Milo) and annual or perennial grass crops or grass mixtures for 18 months after a Spring application or 21 months after a Fall application of this product.

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~~ delay planting Proso millet, Oats, Sorghum (Milo) and annual or perennial grass crops or grass mixtures for 18 months after an application of this product. In Sorghum, cool wet weather conditions during early growth stages may increase the possibility of crop injury.

**In all other areas receiving more than 20 inches of rainfall and irrigation:** Delay planting Proso millet, Oats, Sorghum (Milo) and annual or perennial grass crops or grass mixtures for 12 months after a Spring application or 14 months after a Fall application of this product.

- **Red beets, Spinach and Sugar beets:** In Arizona, Colorado, California, Idaho, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, do not plant Spinach, Sugar beets and Red beets for 12 months after a Spring application or 14 months after a Fall application. If land has not been irrigated, do not plant these crops for 18 months after a Spring application or 20 months after a Fall application of this product. Plowing to a depth of 12 inches prior to planting these crops will reduce the possibility of crop injury.

**In all other areas:** Do not plant Red beets, Spinach and Sugar beets for 12 months after a Spring application or 14 months after a Fall application. Before planting Sugar beets, moldboard plow to a depth of 12 inches to reduce the possibility of crop injury.

- **For rotation crops other than those specifically addressed above:** For all other crops, with the exception of those to which this product may be applied as a pre-plant soil incorporated treatment, delay planting for 5 months after an application of this product.

## USE RESTRICTIONS

- Do not use this product on any crop grown in Pecos County or Reeves County, Texas.
- Do not apply this product to soils that are wet or are subject to prolonged periods of flooding as poor weed control may result.
- Do not allow cover crops to be grazed or harvested.

## WEEDS CONTROLLED

Common Name	Scientific Name
<b>Grass Weeds:</b>	
Barnyardgrass (Watergrass)	<i>Echinochloa crus-galli</i>
Bluegrass, Annual	<i>Poa annua</i>
Bromegrass (Cheatgrass, Downy brome)	<i>Bromus tectorum</i>
Cheat (Chess)	<i>Bromus secalinus</i>
Cheatgrass	<i>Bromus tectorum</i>
Crabgrass (Large, Smooth)	<i>Digitaria</i> spp.
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>
Foxtail (Bottlegrass, Bristlegrass, Giant, Green*, Foxtail millet, Pigeongrass, Robust foxtail, Yellow)	<i>Setaria</i> spp.
Goosegrass (Silver crabgrass, Silvergrass, Wiregrass, Yardgrass)	<i>Eleusine indica</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Lovegrass (Stinkgrass)	<i>Eragrostis</i> spp.

Oat, Wild**	<i>Avena fatua</i>
Ryegrass, Annual	<i>Lolium multiflorum</i>
Sandbur (Burgrass)	<i>Cenchrus incertus</i>
Shattercane (Wild cane)	<i>Sorghum bicolor</i>
Signalgrass (Brachiaria)	<i>Brachiaria</i> spp.
Sprangletop	<i>Leptochloa filiformis</i>
Wooly cupgrass	<i>Eriochloa villosa</i>
<b>Broadleaf Weeds:</b>	
Carpet weed	<i>Mollugo verticillata</i>
Chickweed, Common	<i>Stellaria media</i>
Dodder	<i>Cuscuta</i> spp.
Florida pusley (Florida purslane, Mexican Clover, Pusley)	<i>Richardia scabra</i>
Goosefoot	<i>Chenopodium hybridum</i>
Henbit	<i>Lamium amplexicaule</i>
Knotweed	<i>Polygonum aviculare</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Nettle, Stinging (Nettle)	<i>Urtica dioica</i>
Pigweed (Carelessweed, Palmer amaranth***, Prostate, Redroot, Rough, Spiny, Tall waterhemp)	<i>Amaranthus</i> spp.
Puncturevine (Caltrop, Goathead)****	<i>Tribulus terrestris</i>
Purslane	<i>Portulaca oleracea</i>
<p>*This product will not control dinitroaniline (DNA) resistant biotypes of Green foxtail (<i>Setaria viridis</i>).</p> <p>**This product applied as pre-plant incorporated (PPI) will provide partial control of Wild oats. This claim is for all PPI uses except Fall applications for Spring seeded cereals at Foxtail (Pigeongrass) control rates.</p> <p>*** Suppression only in areas of the southwest U.S. where tolerance to Trifluralin has been observed.</p> <p>****Western U.S. only.</p>	

## APPLICATION DIRECTIONS

### Soil Preparation

This product may be applied to standing stubble or soil that has been pre-tilled. Reduce existing weeds and crop residues to a manageable level using tillage so that this product can be uniformly incorporated into the top 2 to 3 inches of the final seedbed. Soil surface conditions must allow this product to be thoroughly and uniformly mixed into the top 2 to 3 inches of soil. If this is not possible, till the soil prior to application.

### Soil Conditions

The soil surface must be smooth enough so the application and incorporation equipment can be operated efficiently and at speeds which ensure a uniform application and incorporation of this product.

Apply when soil moisture is sufficient to allow breakup of large clods and uniform mixing during the incorporation process. When soil is excessively moist, soil compaction and/or non-uniform incorporation may occur.

### Application

This product may be applied with ground or aerial broadcast application equipment. Apply this product with a properly calibrated herbicide applicator that will apply the granules uniformly. Apply at the specified rate for soil texture class to be treated. 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.

**Aerial Application:** Avoiding product drift from the application site is the responsibility of the applicator. The interaction of many equipment- and-weather-related factors determine the potential for product drift. The applicator and the grower are responsible for considering all these factors when making decisions.

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

### Soil Incorporation

This product must be incorporated within 24 hours after application either by mechanical incorporation or at least 0.5 acre inch of water (rainfall or irrigation). If a second incorporation is needed, it should be delayed 3 to 5 days after the first incorporation and be completed prior to planting.

### Soil Texture Guide

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

Soil Texture	Soil Classification
Course (Light)	Sand, Loamy sand, Sandy loam
Medium	Loam, Silty clay loam*, Silt loam, Silt, Sandy clay loam*
Fine (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 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 Range

Where a rate range is given, use the lower rate for coarser textured soils or soils with low organic matter content. Use the higher rate in the given 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 specified rate of this product.

## TIMING OF APPLICATION

### SPRING APPLICATIONS

Apply this product any time after January 1 when soil can be worked and is in condition suitable for good incorporation. Refer to the "CROPS USE DIRECTIONS" section for directions of use on specific crops.

### FALL APPLICATIONS

**In California, Minnesota, North Dakota and South Dakota:** Apply this product any time between September 1 and December 31.

**In All Other States:** Apply this product any time between October 15 and December 31.

### Use Rates for Fall Applications:

Refer to the "CROPS USE DIRECTIONS" section for specific use rates. In some crops grown in certain geographic areas, increased rates for Fall applications are directed. For crops where there are no specific Fall application instructions and this product is directed as a pre-plant incorporated treatment, use the rates listed for Spring applications. In areas receiving greater than 20 inches total average annual rainfall and irrigation, use the higher rate in the given rate range. Do not apply this product prior to planting Potatoes, Sugar beets 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, take precaution 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.

**Use Restriction:** Do not apply this product 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**

### **Soil Incorporation**

This product requires two incorporation passes unless otherwise specified in use directions for a specific crop. This product must be soil-incorporated within 24 hours of application either by mechanical incorporation or at least 0.5 acre inch of water (rainfall, irrigation). If a second incorporation is needed, delay incorporation 3 to 5 days after the first incorporation and complete prior to planting. The second incorporation pass should occur in a different direction than the first. Use incorporation equipment capable of thoroughly and uniformly mixing this product 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 Before Planting**

This product must be incorporated one time within 24 hours after application. The second incorporation must be delayed 3 to 5 days after the first, be completed prior to planting, and must be ran in a different direction from the first. Incorporate uniformly into the top 2 to 3 inches of the final seedbed.

### **Incorporation in Established Crops**

This product may be applied and incorporated in certain established crops. Check specific crop for incorporation directions.

### **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 specified equipment. The bedding operation serves as the second incorporation. Be careful not to expose untreated soil during post-bedding operations.\*

**Application after bedding:** Knock off beds to planting height before applying this product. Apply and incorporate with specified equipment that will conform to bed shape. Be careful not to 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.

### **Cultivation After Planting**

Treated crops 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.

### **Preferred Incorporation Equipment**

Any of the listed incorporation tool may be used alone or in combination with any other directed tools. Two incorporation passes are required unless specifically stated. The second incorporation must 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 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 with sweeps on successive rows staggered so that no soil is left unturned. Chisel points must not be used. Best results are obtained when the field cultivator is equipped with harrow, reel or basket attachments. The second incorporation may be accomplished with an air seeder (field cultivator setup).

**Chisel Plow:** (For use in Northern Great Plains) The chisel plow may be used for the first incorporation pass only. Any other specified 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 to 5 inches deep at 4 to 6 mph. A chisel plow is defined as having 3 rows of 14 to 18 inch sweeps no greater than 12 inches apart. Stagger sweeps so that no soil is left unturned. Chisel points must not be used.

**Combination Seedbed Conditioners:** Set to cut 3 to 4 inches deep and operate at a speed of at least 6 mph. These implements are defined as two 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 successive rows of sweeps staggered so that no soil is left unturned), followed by a spike-tooth of flexline harrow, followed by a ground-driven reel or basket or incorporation wheels. Set combination implements to cut 3 to 4 inches deep and operated at a minimum of 6 mph. Combination tools can also be composed of 2 rows of wide crown sweeps that overlap so that the roots of all weeds and plants are severed followed by 2 gangs of rotating spoked wheels that thoroughly mix this product into the top 2 to 3 inches of the final seedbed.

**Rolling Cultivator:** Set to cut 2 to 4 inches deep and operate at 6 to 8 mph.

**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. Operate P.T.O. driven equipment at a speed less than 4 mph.

**Other Equipment:** Includes flexible tine-tooth harrow (Flexline, Melroe), Gates harrow, sweep type cultivator, V-blade undercutter or rolling cultivator but only for uses specified in this label.

### **Conservation Tillage Practices**

In reduced or minimum tillage situations, Fall or Spring application and incorporation of this product may be combined with tillage operations. The first incorporation may utilize equipment such as a tandem disc, combination implement or bedding equipment that provides good soil mixing, but leaves a maximum amount of crop residue on the soil surface. The second incorporation may be accomplished with tillage equipment that provides uniform soil mixing used in conjunction with no-till planters (see specific directions for reduced or conservation tillage situations for Cotton and Soybeans in the "CROPS USE DIRECTIONS" section).

## **CROPS USE DIRECTIONS**

The following directions are given as broadcast rates per acre. Apply any time after January 1 when the soil can be worked and is suitable for good incorporation. Refer to the specific crop for directions.

Where a rate range is shown, use the lower rate for coarser soils or soils with lower organic matter.

**Use Restriction:** Do not use this product on soils containing more than 10% organic matter or on muck soils.

### **ALFALFA (ESTABLISHED)**

Apply this product with ground or aerial equipment to established Alfalfa prior to weed emergence. A single rainfall or overhead sprinkler irrigation of 0.5 inch or more, flood irrigation or furrow irrigation after application is required to activate this product. If activated using furrow irrigation, thoroughly wet the surface of beds between furrows. If activation does not occur within 3 days after application, activate this product using incorporation equipment that will ensure thorough soil mixing with minimum damage to the established Alfalfa.

This product will control Barnyardgrass, Bromegrass (Cheatgrass, Downy brome), Canary, Cheat (Chess), Crabgrass, Cupgrass, Dodder, Foxtail, Junglerice, Pigweeds (including Palmer amaranth and Tall waterhemp\*), Sandbur and Wild Barley at the following rates:

BROADCAST APPLICATION RATES PER ACRE*	
Soil Texture	This Product (Lbs. / Ac.)
All soil textures	20 (2 lbs. a.i.)
*Do not apply more than 20 pounds of this product (2 lbs. a.i.) per acre per application. Maximum application rate per acre per year for all soil textures: 40 lbs. of this product (4 lbs. a.i.)	

\*Not for use in California against Tall waterhemp.

**Time of Application:** This product may be applied during dormancy or throughout the growing season immediately after a cutting prior to the expected time of weed germination.

**Fall Application:** Apply immediately after a cutting between August 1 and October 1. When Fall applied, this product will control Bromegrass and Cheat in addition to other weeds listed above on this label that germinate after application. Bromegrass and Cheat begin to germinate in the Fall with the onset of cooler weather.

### ALFALFA (SEEDLING DURING ESTABLISHMENT)

Apply as a pre-plant incorporated treatment for pre-emergence control of labeled weeds. Apply and incorporate prior to planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5.0 (0.5 lb. a.i.)
Medium	5.0 to 7.5* (0.5 to 0.75 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Use Precautions

- Some crop stand reduction and stunting may occur with the use of this product on Alfalfa seedling during establishment, however, reduced weed competition will allow establishment of a quality stand of Alfalfa.
- 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 this product can be applied as a pre-plant treatment or crop injury may result.

### Use Restrictions

- Do not harvest Alfalfa forage within 21 days of application.
- Do not harvest Alfalfa hay within 20 days of application of this product.
- Do not apply more than 20 pounds of this product (2 lbs. a.i.) per acre per application.
- Maximum application rate per acre per year for all soil textures: 40 lbs. of this product (4 lbs. a.i.)

### ALFALFA (ESTABLISHED) GROWN FOR SEED

#### (Nevada, Oregon, Utah, Washington Only)

For the control of Dodder in established Alfalfa grown for seed, surface apply this product at a broadcast rate of 30 to 40 pounds per acre in late Winter or Spring. Application and activation must occur prior to Dodder germination. For best results, activate this product by rainfall, overhead sprinkler irrigation, flood irrigation, furrow irrigation or by mechanical incorporation within 3 days of application. If activated using furrow irrigation, thoroughly wet surface of beds between furrows. When mechanically incorporated, use equipment that will ensure thorough soil mixing and cause minimum damage to established Alfalfa.

Where Alfalfa is to be rotated to another crop in the season following application of this product, plant only those crops to which Trifluralin herbicide may be applied as a pre-plant incorporated treatment or crop injury may occur. Read and carefully follow all rotational restrictions on this label. The potential for rotational crop injury may be reduced by moldboard plowing to a depth of 12 inches before planting.

**Specific Use Restrictions in the States of Nevada and Utah:**

- When this product is applied at more than 20 pounds per acre, Alfalfa seed must not be used for human or animal consumption and use of Alfalfa forage, hay or seed byproducts for food or feed is prohibited.
- Do not apply to seedling Alfalfa (up to 6 true leaf stage).
- Do not graze or cut Alfalfa for hay or forage following more than 20 pounds per acre application of this product.
- Do not use harvested seed for sprouting. Processed seed must be labeled **“Not for human or animal consumption.”** at the processing plant.
- All seed screenings from Alfalfa treated more than 20 pounds per acre of this product must be disposed in such a way that they cannot be recovered and utilized for food and feed.

**Specific Use Restrictions in the State of Oregon:**

- The pesticide applicator, the producer of the crop and the seed conditioner must be aware that the use of this product according to this label on established Alfalfa grown for seed is deemed a non-feed/non-food use by the Oregon Department of Agriculture and is regulated by Oregon Administrative Rule (OAR) 603-057-0535, Pesticide Use on Crops Grown for Seed. If the applicator of this pesticide is not the producer, the applicator must provide a copy of this labeling to the producer of the crop. Producers of this crop who use this product or cause the product to be used on a field they operate must provide a copy of this label to the seed conditioner.

This pesticide does not have an established pesticide residue tolerance for this crop. Consequently, no portion of this seed crop may be used or distributed for food or feed for 1 year (365 days) after the last application of this product. This restriction pertains to, but is not limited to green chop, forage, hay, pellets, meal, whole seed, cracked seed, straw, roots, bulbs, forage or seed screenings and to the grazing of the crop field, stubble or regrowth. All seed screenings shall be disposed of in such a manner that the screenings cannot be distributed or used for food or feed purposes as indicated in OAR 603-057-0535. Additional regulations concerning seed screenings are stated in OAR 603-057-0535.

Any seed from a field treated with this pesticide product shall bear specific and conspicuous container labeling or if shipped in bulk, on the shipment invoice or bill of lading. The labeling shall contain the following statement:

“This seed was produced using one or more products for which the U.S. EPA has not established pesticide residue tolerances. This seed, in whole, as sprouts or in any form may not be used for human consumption or animal feed. Failure to comply with this condition may violate requirements of the Federal Food and Drug Administration, the Oregon Department of Agriculture and other regulatory agencies.”

- Do not apply to seedling Alfalfa (before the 6 true leaf stage).

**Specific Use Restrictions in the State of Washington:**

- When this product is applied at more than 20 pounds per acre, Alfalfa seed must not be used for human or animal consumption and use of Alfalfa forage, hay or seed byproducts for food or feed is prohibited.
- All Alfalfa seed screenings shall be disposed of in such a way that they cannot be distributed or used for food or feed. The seed conditioner shall keep records of screening disposal for 3 years from the date of disposal and shall furnish the records to WSDA forthwith upon request. Disposal records shall consist of documentation from a controlled dump site, incinerator or other equivalent disposal site and shall show the lot numbers, amount of material disposed of, its grower(s) and the date of disposal.
- No portion of the Alfalfa seed plant, including but not limited to green chop, hay pellets, meal, whole seed, cracked seed, roots, bulbs, leaves and seed screenings may be used or distributed for food or feed purposes.
- Alfalfa seed shall bear a tag or container label that forbids use of the seed for human consumption or animal feed.
- Alfalfa seed may not be distributed for human consumption or animal feed.
- Do not apply to seedling Alfalfa (up to 6 true leaf stage).

- Chemigation: Do not apply this product through any type of irrigation system.
- The maximum application rate is 40 pounds per acre.
- Pre-harvest Interval (PHI): Do not apply within 21 days before harvest.
- Make 1 application in late Winter or Spring.
- This pesticide is toxic to fish. This product should not be used in established Alfalfa grown for seed where impact on listed threatened or endangered species is likely. You may refer to the WSDA Endangered Species Program website at <http://agr.wa.gov/> or contact the Washington Department of Fish & Wildlife, National Marine Fisheries Service (NOAA Fisheries) or US Fish & Wildlife Service for information regarding aquatic species listed as threatened or endangered.
- Certain uses of Trifluralin may be restricted by a U.S. District Court final order. You may refer to the WSDA endangered Species Program website <http://agr.wa.gov/> for information regarding pesticides that are impacted by the final order.

### **ASPARAGUS (Established)**

This product can be applied to established Asparagus as a single or as a split application.

In the Winter or early Spring, apply this product to Asparagus after mature ferns are removed but before new spears emergence. Make post-harvest applications immediately after harvest in the late Spring or early Summer before ferns are allowed to develop.

This product will suppress volunteer seedling Asparagus and Field bindweed when the following rates and application schedules are used:

<b>BROADCAST APPLICATION RATES PER ACRE</b>			
<b>Soil Texture</b>	<b>This Product (Lbs./Ac.)</b>		
	<b>Split Application</b>		<b>Single Application</b>
	<b>Before Harvest</b>	<b>+ After Harvest</b>	<b>Before or After Harvest</b>
Coarse	5.0 (0.5 lb. a.i.)	5.0 (0.5 lb. a.i.)	10.0 (1 lb a.i.)*
Medium	7.5 (0.75 lb. a.i.)	7.5 (0.75 lb. a.i.)	15.0 (1.5 lb. a.i.)*
Fine	10.0 (1 lb. a.i.)	10.0 (1 lb. a.i.)	20.0 (2 lb. a.i.)*

\*Maximum amount of this product that can be applied per acre for the given soil type in any single calendar year.

#### **Use Restriction**

- Do not apply more than 10 pounds of this product (1 lb. a.i.) per acre on coarse soils, 15 pounds of this product (1.5 lb. a.i.) per acre on medium soils, or 20 pounds of this product (2 lb. a.i.) per acre on fine soils during the calendar year.

### **BEANS (ALL DRY AND FRESH BEANS/PEAS FROM CROP GROUP 6 EXCEPT GUAR, MUNGBEAN, LIMA AND SNAP BEANS, SOYBEANS, ENGLISH AND SOUTHERN PEAS LISTED ELSEWHERE ON THIS LABEL)**

Apply and incorporate this product in the Spring before planting or in the Fall. See instructions for Fall application under the section "*FALL APPLICATIONS*" using the following rates:

<b>BROADCAST APPLICATION RATES PER ACRE</b>	
<b>Soil Texture</b>	<b>This Product (Lbs. / Ac.)*</b>
Coarse	5 (0.5 lb. a.i.)
Medium	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)

\*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter.  
 \*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.

## BEANS (GUAR AND MUNGBEAN)

Apply and incorporate this product before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on soils with 2 to 5% organic matter.	

## BEANS (LIMA AND SNAP)

Apply and incorporate this product before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	5 (0.5 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on soils with 2 to 5% organic matter.	

## BERMUDAGRASS GROWN FOR SEED (Arizona & California Only)

Use this product to control weeds in established Bermudagrass grown for seeds before weed emergence. Apply at a broadcast rate of 20 pounds of this product per acre for all soil textures using a properly calibrated ground or aerial equipment. A single rainfall or overhead irrigation of 0.5 inch or more or flood irrigation after application is needed to activate this product.

For purposes of pesticide registration in the State of Arizona, all Bermudagrass seed crop fields may be considered non-food and non-feed sites of pesticide use, provided that the following conditions are met:

- All seed screenings shall be disposed of in such a way that they cannot be distributed or used for food or feed. The seed conditioner shall keep records of screening disposal for three years from the date of disposal and shall furnish the records to the State forthwith upon request. Disposal records shall consist of documentation from a controlled dump site, incinerator, or other equivalent disposal site and shall show the amount of material disposed of, its grower and the date of disposal.
  - a) No portion of the seed Bermudagrass plant including, but limited to, green chop, hay, pellets, meal, whole seed and cracked seed, may be used or distributed for food or feed purposes.
  - b) All Bermudagrass seed conditioned in the State of Arizona shall bear a tag which forbids the use of the seed for human consumption or animal feed.
  - c) No Bermudagrass seed conditioned in the State of Arizona may be distributed for human consumption or animal feed.

Violation of any condition listed in this section is declared a violation of the use directions contained in this label and is prohibited.

## CARROTS

Apply and incorporate this product before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

## CASTOR BEANS

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

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

## CELERY

Apply this product as a soil incorporated treatment to direct seeded or transplant Celery before planting, at planting or immediately after planting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

## CHICORY/ENDIVE

Apply and incorporate this product before planting in the Spring or early Summer to Chicory grown either as root crop or leafy vegetable using the following rates listed below.

### Chicory (*Cichorium intybus* or *Cichorium endiva*)

This product may be applied as a pre-plant incorporated treatment to Chicory grown either as a root crop or leafy vegetable as indicated below:

*Cichorium intybus*, considered to be a root crop, may be harvested as:

- Chicory - the dried and processed root used as a coffee substitute.
- Radicchio - green leaves harvested from field grown plantings.
- Belgian Endive - white leaves grown in the dark from field grown rootstalks.

*Cichorium endiva*, considered to be a leafy vegetable, may be harvested as:

- Escarole - curly green leaves from field grown plantings.
- Endive - very curly green leaves from field grown plantings.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter. On all soils with 5 to 10% organic matter, use 10 to 12.5 lbs. of this product (1 to 1.25 lb. a.i.) per acre.	

## COLE CROPS (BROCCOLI, BRUSSELS SPROUTS, CABBAGE AND CAULIFLOWER)

### Direct Seeded Cole Crops

Apply this product as a pre-plant soil incorporated treatment. ~~Direct seeded Cole crops exhibit marginal tolerance to higher than specified rates of this product. Stunting or reduced stands may occur.~~

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	5 (0.5 lb.a.i.)
Fine	7.5 (0.75 lb. a.i.)
* Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on soils with 2 to 5% organic matter.	



## Transplanted Cole Crops

Apply and incorporate this product prior to transplanting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

## CORN (FIELD CORN, CORN FODDER\*, FORAGE\* AND SILAGE\*)

This product may be applied as a post-emergence treatment following cultivation or the use of a pre-emergence herbicide. Uniformly apply to the soil surface when crop is well established (2 true leaf stage or taller). This product will not control established weeds.

**Incorporation Directions:** Incorporate this product within 24 hours after application. Incorporation may be accomplished with one pass of a sweep-type cultivator or properly adjusted rolling cultivator. Use sweep-type cultivator with 3 to 5 sweeps per row middle and be operated at a speed that will provide maximum soil movement. Set middle sweeps to avoid exposing untreated soil. Adjust incorporation equipment to avoid mechanical injury to the crop.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	3.75 to 5 (0.375 to 0.5 lb. a.i.)
Medium	5 to 7.5 (0.5 to 0.75 lb.a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 5 to 7.5 pounds of this product (0.5 to 0.75 lb. a.i.) per acre on coarse soils in Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia to control Fall panicum and Texas panicum.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Use Precaution

- Crop injury may result if this product is applied as a pre-plant or pre-emergence treatment.

### Use Restrictions

- Do not apply this product to Popcorn, Sweet corn or Corn grown for seed.
- Do not apply this product within 6 weeks prior to harvesting forage, fodder or silage or after Corn is 30 inches tall.
- \*Do not use in California in Corn fodder, forage and silage.

## COTTON AND COTTONSEED

This product may be applied in the Fall, in the Spring, before planting, at planting, after planting (before crop emergence) to established Cotton up to and including lay-by, but no later than 90 days before harvest.

## How to Apply

This product may be applied and soil incorporated or it may be applied to the surface of soil and watered-in (follow directions for incorporation with overhead sprinkler irrigation in Minimum Tillage Cotton section below).

Follow the soil preparation, application, and incorporation procedures in the “*APPLICATION DIRECTIONS*” and “*INCORPORATION DIRECTIONS*” sections of this label. For Fall application, in addition to the directions below, refer to instructions in the “*TIMING OF APPLICATION*” section of this label. For lay-by application, refer to instructions in the “Lay-by Application” section below.

If incorporating after planting, incorporate this product soon after planting and set equipment so as to avoid disturbing planted Cottonseed.

For band applications, reduce the application rate in proportion to the row spacing and bandwidth treated. For example, treating a 12 inch band where the row spacing is 36 inches would require one-third of the listed broadcast rate per acre (12 inches divided by 36 inches = 1/3).

Soil Texture	Conventional Tillage Cotton – Broadcast Application Rates (Lbs. / Ac.)			
	Spring Application*	Fall Application		
		Eastern U.S.**	Western U.S.***	Arkansas, Louisiana, Mississippi & Texas
Coarse	5 (0.5 lb. a.i.)	10 (1 lb. a.i.)	7.5 (0.75 lb. a.i.)	10 (1 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)	10 (1 lb. a.i.)	10 (1 lb. a.i.)	10 to 15 (1 to 1.5 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)	12.5 (1.25 lb. a.i.)	12.5 (1.25 lb. a.i.)	12.5 to 20 (1.25 to 2 lb. a.i.)
<p>*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter. Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.</p> <p>**Use rates for Cotton producing areas in Eastern U.S. including Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southern southeastern Missouri (Bootheel), North Carolina, New Mexico, Oklahoma, South Carolina, and Tennessee. and Texas.</p> <p>*** Use rates for Cotton producing areas in Western U.S. including Arizona, California and Nevada.</p> <p><b>For Fall application in Cotton growing areas other than those listed above:</b> Apply this product using the Spring application rates at higher rates where a range is given.</p>				

## Minimum Tillage Cotton (Conservation Tillage Cotton) - Fall Application Prior to Establishing a Small Grain Cover Crop

Apply this product at a broadcast rate of 10 to 15 pounds per acre. Use the 15 pound rate of this product per acre where crop residues are present or where dense weed populations are anticipated. Make applications to flat ground and incorporate once within 24 hours using incorporation implements such as a springtooth harrow that can be set to cut no more than 2 to 3 inches deep. **Do not incorporate with a tandem disc.**

Form beds with disc bedders or other bedding implements that will mix and move most of the treated soil from the furrow area to the beds.

Fertilizer may be applied as appropriate during incorporation operations. Plant 2 to 4 rows of a small grain cover crop, such as Barley, Rye or Wheat, 2 inches deep in the furrow area between the beds. To avoid injury to small grain seedlings, place seed below the treated layer of soil. Barley is more tolerant to injury than Wheat or Rye. Existing soil moisture must be present to establish and maintain the cover crop. In late winter (February), apply 2,4-D if necessary for broadleaf weed control.

### Spring Application Before or After Planting

Apply this product as a broadcast treatment or as a band to bare ground or standing dead cover following burndown with a post-emergence herbicide. Apply and incorporate either before planting or after planting. If applied after planting, incorporate immediately and set incorporation equipment at a depth that will not disturb the planted seed. If applied as a band, adapt incorporation equipment to the width of the treated band and use equipment that will uniformly mix this product into the top 1 inch of soil. Compared to double pass incorporation, weed control may be reduced when using single pass incorporation or if using equipment that does not thoroughly mix this product into the treated soil.

Minimum Tillage - Broadcast Application Rates	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 to 10 (0.5 to 1 lb. a.i.)
Medium	7.5 to 10 (0.75 to 1 lb. a.i.)
Fine	10 to 20 (1 to 2 lb. a.i.)
*Use the higher rate in the range where crop residues are present or where dense weed populations are anticipated.	

### Incorporation with Overhead Sprinkler Irrigation

This product may be surface applied in minimum tillage cotton as either a band or broadcast treatment before or after planting. Because this product does not control established weeds, plant and apply as soon as possible after the last tillage operation or cultivation before weeds have germinated. This product when surface applied must be activated as soon as possible after application with 0.75 acre inch or more of uniformly applied overhead sprinkler irrigation. Do not delay irrigation past 3 days.

Sprinkler Irrigation Incorporated - Broadcast Application Rates	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 to 15 (0.5 to 1.5 lb. a.i.)
Medium	7.5 to 20 (0.75 to 2 lb. a.i.)
Fine	10 to 20 (1 to 2 lb. a.i.)
*Use the higher rate in the range where crop residues are present or where dense weed populations are anticipated.	

### Lay-by Application

Lay-by application made be made on established Cotton after the 4 true leaf growth stage but no later than 90 days before harvest. Apply uniformly the granules on the soil surface using a properly calibrated granular application equipment. 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.

Compared to conventional double pass incorporation, weed control may be reduced when using single pass incorporation or if using equipment that does not provide thorough soil mixing. The lay-by application rate must not exceed the rate given in the lay-by table below for each soil texture.

Lay-By - Broadcast Application Rates	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)

## Use Precautions

Plant Cotton after early season adverse weather conditions have passed, especially when using high rates. Cool, wet weather early in the growth cycle causes stress to the cotton plant. The added stress may result in reduced stand, delayed maturity, and reduced yields.

## Use Restrictions

- **Maximum Crop Year Use Rate:** For full season weed control, this product may be applied one or more times sequentially during the Cotton crop year observing the rates, methods of application, and a 90 day pre-harvest interval. The maximum dosage must not exceed the rates given and **the maximum cumulative amount of this product that may be applied *within the same crop year* (includes Fall application or Spring application, and lay-by application) must not exceed 20 pounds of this product per acre (2 lbs. a.i./Ac.).** Do not apply more than 20 pounds of this product (2 lb. a.i.) per acre per application.
- **Rotation Crop Restrictions:** Refer to the “*USE INFORMATION*” section for specific rotational crop restrictions. When the cumulative amount of this product in one crop year (Fall or Spring plus lay-by) exceeds the rates in the table below, plant only those crops for which this product is labeled as a pre-plant incorporated treatment in the season following the application of this product or crop injury may result.

Cumulative Amount of This Product per Acre in One Crop year	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	7.5 (0.75 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)

A small grain cover crop including Barley, Rye or Wheat intended for prevention of wind erosion in minimum tillage Cotton may be planted in the Fall following a maximum crop year use rate of 20 pounds of this product (2.0 lb. a.i.) per acre. However, reduced stand and delayed emergence and development of the cover crop may result. The cover crop must not be grazed or harvested.

## Pre-emergence Overlay Applications Following This Product

Apply this product as a pre-plant incorporated treatment. Additional weeds tolerant to this product may be controlled using overlay applications of products registered for use on Cotton. Such applications may be made unless use following an application of this product is specifically prohibited by the product label. Consult the overlay product label for additional weeds controlled, directions for use, use precautions and limitations before use.

## Post-emergence Applications Following This Product

Apply this product as a pre-plant incorporated treatment. Additional weeds tolerant to this product may be controlled using post-emergence applications of products registered for use on Cotton. Such treatments may be made unless use following an application of this product is specifically prohibited by the product label. Consult the post-emergence product label for additional weeds controlled, directions for use, use precautions and limitations before use.

## Use Restrictions

- Do not apply this product to Cotton within 90 days of harvest.
- The maximum dosage per application must not exceed the given rates.
- Do not apply more than 20 pounds of this product (2 lbs. a.i.) per acre per year (either Fall application thru lay-by or pre-plant plus post-plant thru lay-by).

## COTTONWOOD TREES GROWN FOR PULP

### New Plantings

Apply and incorporate this product before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 to 10 pounds of this product (0.75 to 1 lb. a.i.) per acre on all soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on all soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Established Plantings

Apply this product in established plantings as a ground application. A single rainfall or overhead sprinkler irrigation of 0.5 inch or more or flood irrigation after application is required to activate this product.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
All soils	10 to 20 (1 to 2 lb. a.i.)
*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 PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
All soils	20 (2 lb. a.i.)

Some Johnsongrass plants will escape. Timely cultivation with tillage implements or spot spraying with effective post-emergence 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

This product 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 this product may be applied as a pre-plant incorporated treatment.

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

### **Incorporation Directions**

Incorporate this product 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 this product, but maintain a surface cover of stubble and crop residue sufficient to protect erosion. The second incorporation may occur any time prior to or in conjunction with tillage operations associated with planting.

### **CUCURBITS**

Apply this product after crop emergence and plants have reached the 3 to 4 true leaf stage of growth. Set incorporation equipment to move treated soil around the base of the plants during incorporation.

<b>BROADCAST APPLICATION RATES PER ACRE</b>	
<b>Soil Texture</b>	<b>This Product (Lbs. / Ac.)*</b>
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
<p>* Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter.</p> <p>*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.</p>	

### **Use Restriction**

- Do not apply within 30 days of harvest except for Watermelon.
- Pre-Harvest Interval (PHI): For Watermelon - 60 days.

### **EGGPLANT**

Apply and incorporate this product to a depth of 3 inches before transplanting. Avoid transplanting until soil temperatures have warmed in the late Spring.

<b>BROADCAST APPLICATION RATES PER ACRE*</b>	
<b>Soil Texture</b>	<b>This Product (Lbs. / Ac.)</b>
All soils	10 to 20 (1 to 2 lb. a.i.)
<p>*Use 10 to 20 pounds of this product (1 to 2 lbs. a.i.) per acre on all soil types.</p>	

### **Use Restriction**

- Do not make more than 1 application per year.

## FLAX

Apply and incorporate this product in the Fall from September 1 to December 31 in California, Minnesota, North Dakota and South Dakota and between October 15 and December 31 in other states. See “*FALL APPLICATIONS*” under “*TIMING OF APPLICATION*” section for additional instructions.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)

### Special Instructions for Use in Flax

1. Incorporation operations or any other tillage practices performed in the Spring prior to seeding must be relatively shallow so as to maintain a firm seedbed. Pack the seedbed prior to seeding.
2. Use press drill or hoe drill for seeding. Seed into moist seedbed and plant no more than 1.5 inches deep.
3. Delay seeding until soil has warmed sufficiently to allow rapid germination and establishment.

## FORAGE LEGUMES

Apply this product as pre-plant incorporated in Forage legumes used as cover crops or in Acreage Conservation Reserve Program (CRP).

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Use Precautions

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

## FRUITS, NUT CROPS AND VINEYARDS

**Application to New Plantings of Almond, Apricot, Grapefruit, Lemon, Nectarine, Orange, Peach, Pecan, Plum, Prune, Tangelo, Tangerine and Walnut trees**

Apply and incorporate this product before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)
*Use 7.5 to 10 pounds of this product (0.75 to 1 lb. a.i.) per acre on soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on soils with 5 to 10% organic matter. *Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Application to New Plantings of Vineyards

Apply and incorporate before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE*	
Soil Texture	This Product (Lbs. / Ac.)**
Coarse	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Medium	7.5 to 15 (0.75 to 1.5 lb. a.i.)
Fine	15 to 20 (1.5 to 2 lb. a.i.)
* On heat-treated or mist propagated Grape rootings, do not use more than 10 pounds of this product (1 lb. a.i.) per acre. ** Use 15 to 20 pounds of this product (1.5 to 2 lbs. a.i.) per acre on soils with 2 to 10% organic matter. Use the lower rate in the rate range in areas receiving less than 20 inches total annual rainfall and irrigation.	

### Use Restriction

- Do not use more than 10 pounds of this product (1 lb. a.i.) per acre on heat-treated or mist propagated Grape rootings.
- Pre-Harvest Interval (PHI): For Vineyards - 60 days.

### Application to Established Non-Bearing and Bearing Almond, Apricot, Grapefruit, Lemon, Nectarine, Orange, Peach, Pecan, Plum, Prune, Tangelo, Tangerine and Walnut trees and Vineyards

In established plantings, apply to the soil surface and use incorporation methods not injurious to the crop.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
All soil textures	10 to 20 (1 to 2 lb. a.i.)
* Use the higher rate in the rate range for longer term weed control.	

### Use Restriction

- Pre-Harvest Interval (PHI): For Vineyards – 60 days.



## GRAIN SORGHUM (MILO)

This product may be applied as a post-emergence treatment following the use of a pre-emergence herbicide. Uniformly apply this product to the soil surface when Grain sorghum is at least 8 inches tall. This product will 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.

**Incorporation Directions:** Incorporate this product within 24 hours after application either by mechanical incorporation or at least 0.5 acre inch of water (rainfall, irrigation). If a second incorporation is needed, delay 3 to 5 days after the first and complete prior to planting. Incorporation may be accomplished with one pass of a sweep-type cultivator or properly adjusted rolling cultivator. Use sweep-type cultivator with 3 to 5 sweeps per row middle and be operated at a speed that will provide maximum soil mixing. Set middle sweeps to avoid exposing untreated soil. Adjust incorporation equipment to avoid mechanical injury to the crop.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	4 to 5 (0.4 to 0.5 lb. a.i.)
Medium	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Use Restrictions

- Do not apply after Grain sorghum is 24 inches tall.
- Do not apply to Grain sorghum as a preplant or pre-emergence treatment or crop injury will occur.

## GREENS: COLLARD, KALE, MUSTARD, TURNIP – FRESH, FOR PROCESSING OR GROWN FOR SEED

Apply as a pre-plant incorporated treatment using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)

## HOPS

Apply and incorporate this product to established crop during dormancy. Incorporate once using equipment that will ensure thorough soil mixing with minimal damage to crop stand.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium soils with 2 to 5% organic matter.	

## KENAF

Apply this product as a pre-plant soil incorporated treatment.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse**	3.75 to 5 (0.375 to 0.5 lb. a.i.)
Medium	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use the higher rate in the rate range where high weed populations are anticipated. *Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse soils with 2 to 5% organic matter.	

### Use Restrictions

- Do not use treated Kenaf for food, forage or feed.
- Do not graze or harvest treated crop for livestock forage.

**OILSEED (BORAGE, CRAMBE, CUPHEA, ECHIUM, GOLD OF PLEASURE (CAMELINA), HARE'S EAR MUSTARD, LESQUERELLA, LUNARIA, MEADOWFOAM, MILKWEED, MUSTARD SEED, OIL RADISH, POPPY SEED, RAPESEED (CANOLA VARIETIES ONLY), SESAME, SWEET ROCKET)**

Apply as soil incorporated treatment before planting in the Spring, in late Summer or in early Fall. Follow the soil preparation, application and incorporation directions under "APPLICATION DIRECTIONS" section of this label.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)

**Use Precaution**

- Where applications are made in late Summer or Fall, only plant those crops to which this product may be applied to as pre-plant incorporated treatment as rotation crops in the season following application or crop injury may occur

**Use Restrictions**

- Do not apply to Rapeseed (Canola) grown in the state of Alaska.
- Do not graze or harvest Crambe for livestock forage.
- Do not apply more than 7.5 pounds of this product (0.75 lb. a.i.) per acre on Mustard seed.

**OILSEED (CALENDULA, CASTOR OIL PLANT, CHINESE TALLOWTREE, EUPHORBIA, EVENING PRIMROSE, JOJOBA, NIGER SEED, ROSE HIP, STOKES ASTER, SUNFLOWER, TALLOWWOOD, TEA OIL PLANT, VERNONIA)**

Apply and incorporate this product 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 using the following rates:

Apply this product as a pre-plant soil incorporated treatment.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 to 10 pounds of this product (0.5 to 0.75 lb. a.i.) per acre on coarse and medium soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on all soils with 5 to 10% organic matter. *Use the higher rate in the rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

**Note:** On Safflower, see the “SAFFLOWER” section for use directions.

**OKRA**

Apply this product as a soil incorporated treatment before planting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter. *Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

## ONIONS (DRY BULBS ONLY)

### Post-emergence Lay-by Application

Apply at lay-by to the soil between Onion rows. Avoid applying directly to the tops or exposed bulbs of Onion plants. Remove emerged weeds prior to application of this product. This product will not control established weeds.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture*	This Product (Lbs. / Ac.)**
Coarse	3.75 to 5 (0.375 to 0.5 lb. a.i)
Medium	5 to 6.25 (0.5 to 0.625 lb. a.i.)
*Apply only to soils containing 3.5% or less organic matter.	
**Use the higher rate in the given rate range where heavy weed pressures are anticipated.	

**Incorporation Directions:** Incorporate this product into the soil within 24 hours of application either by mechanical incorporation or at least 0.5 acre inch of water (rainfall, irrigation). If a second incorporation is needed, delay 3 to 5 days after the first incorporation and complete prior to planting. Incorporate this product uniformly by operating sweep-type or rolling cultivator set to cut 2 to 4 inches deep and operated at 6 to 8 mph. Two incorporation passes are required with the first occurring within 24 hours after application or erratic weed control may result. Delay the second incorporation for a minimum of 3 to 5 days after the first. Avoid covering exposed Onion bulbs with treated soil during incorporation as crop injury may occur. Avoid injury to crop roots during incorporation.

### Use Precaution

Reduced yields may result from the use of this product on Onion crops weakened by diseases, improper incorporation depth, excessive moisture, high salt concentration or drought ~~may weaken the crop~~ and increase the possibility of damage from this product. Under these conditions, ~~delayed crop development or~~ reduced yields may result.

### Use Restrictions

- Do not apply as a pre-plant or pre-mergence treatment.
- Do not apply to muck soil.
- Pre-Harvest Interval (PHI): 60 days

## PEANUTS (New Mexico, Oklahoma & Texas Only)

Apply and incorporate this product before planting, at-planting or immediately after planting. When incorporating after planting, adjust equipment so as not to disturb planted seed.

BROADCAST APPLICATION RATE PER ACRE	
Soil Texture	This Product (Lbs. / Ac.
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
*Use 5 to 7.5 pounds of this product (0.5 to 0.75 lb. a.i.) per acre on coarse to medium soils.	

### PEAS (DRY PEAS, ENGLISH PEAS)

Apply and incorporate this product in the Spring before planting or in the Fall. See “FALL APPLICATIONS” under “TIMING OF APPLICATION” section for additional instructions.

BROADCAST APPLICATION RATE PER ACRE		
Soil Texture	This Product (Lbs. / Ac.)*	
	Spring Application	Fall Application**
Coarse	5 (0.5 lb. a.i.)	5 (0.5 lb. a.i.)
Medium	5 to 7.5*** (0.5 to 0.75 lb. a.i.)	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)	7.5 (0.75 lb. a.i.)
*Use the higher rate in the rate range in areas receiving greater than 20 inches total annual rainfall and irrigation. **This product may be applied in the Fall to Dry and English Peas in the states of Idaho, Oregon and Washington. ***Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on medium soils with 3% or more organic matter.		

### PEAS (SOUTHERN PEAS)

Apply and incorporate this product before planting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter. *Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### PEPPERS (TRANSPLANT ONLY)

Apply and incorporate this product prior to transplanting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter and on all soils with 5 to 10% organic matter. *Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Use Restriction

- Do not apply this product after transplanting.

### Chili Peppers (Nevada & Texas Only)

Apply this product as a post-emergence incorporated treatment when plants are 5 to 7 inches tall using ground application equipment following the rates in the below table. Apply uniformly and accurately to the soil surface. Destroy existing weeds prior to application as this product does not control existing weeds.

**Incorporation Directions:** Incorporate within 24 hours using one pass of a sweep-type (having 3 to 5 sweeps per middle) or rolling cultivator at 6 to 8 mph to provide optimal soil mixing and move treated soil into the crop row. Adjust incorporation equipment to prevent mechanical injury to the crop.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	3.75 to 5 (0.375 to 0.5 lb. a.i.)
Medium	5.0 to 7.5 (0.5 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)

### Use Precaution

- To avoid crop injury, do not apply when plants are wet from dew or irrigation. Prolonged foliar contact with granules of this product under wet conditions may result in foliar crop injury.

### POTATOES (Except Maine)

Apply and incorporate this product after planting prior to crop emergence, immediately following drag off or after Potato plants have fully emerged.

**Incorporation Directions:** Incorporate this product into the soil within 24 hours of application either mechanically or at least 0.5 acre-inch of water (irrigation or rainfall). If second incorporation is needed, delay it 3 to 5 days after the first incorporation and be completed before planting. 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, emergence of Potato may be retarded and stem brittleness can occur. When applying and incorporating this product after Potato plants have fully emerged, do not completely cover the plants with treated soil. Likewise, do not completely cover the plants during subsequent cultivations. Be careful that incorporation equipment does not damage seed pieces or elongating sprouts.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

## RADISH

Apply and soil incorporate this product before planting using the following rates:

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)

## SAFFLOWERS

Apply and incorporate this product in the Spring before planting or in the Fall. See “FALL APPLICATIONS” under “TIMING OF APPLICATION” section for additional instructions.

BROADCAST APPLICATION RATES PER ACRE		
Soil Texture	This Product (Lbs. / Ac.)*	
	Spring Application**	Fall Application***
Coarse	5 (0.5 lb. a.i.)	5 7.5 (0.75 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)	10 (1 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)	12.5 (1.25 lb. a.i.)
*Use the higher rate in the rate range in areas receiving greater than 20 inches total annual rainfall and irrigation. **Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter. Use 10 to 12.5 pounds of this product (1 to 1.25 lbs. a.i.) per acre on all soils with 5 to 10% organic matter. Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation. *** In CA, MN, ND and SD, apply this product any time between September and December 31. In all other states, Fall apply any time between October 15 and December 31.		

## SMALL GRAINS (BARLEY, DURUM AND WHEAT)

### Use Precautions

Carefully follow directions for use of this product on Small grains to minimize potential crop stress. Under certain conditions, delayed crop emergence and/or stand reduction may occur when this product is applied to Barley, Durum or Wheat. The combined effect of certain cultural practices and unfavorable soil or environmental conditions may cause excessive crop seedling stress resulting in retarded crop growth, stand reduction and possibly reduced yield.

For best results, observe the following:

- Use tillage methods that provide a uniformly firm seedbed and time tillage operations to conserve moisture.
- Irrigate prior to planting or after germination and emergence. Moisture received between planting and emergence may cause crusting, especially on loose, friable seedbeds.
- Specified application rates must be followed. This is particularly important on coarse textured or low organic matter soils.

- Carefully follow incorporation directions. When applying pre-plant incorporated treatments, operate equipment at specified depth and speed to place this product 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. 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. 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 the use of seed varieties known to have poor seedling (emergence) vigor.
- Soil characteristics and environmental conditions which may contribute to crop seedling stress that may be accentuated by use of this product 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.

### **Use Restrictions**

- Do not apply this product on Small grains where a dinitroaniline herbicide including this product and Ethalfluralin were applied the previous growing year ~~season~~ at a rate greater than 0.5 pound active ingredient per acre.

### **Incorporation Instructions / Equipment**

Soil-incorporate this product within 24 hours of application either mechanically or at least 0.5 acre-inch of water (rainfall, irrigation). If second incorporation is needed, delay it 3 to 5 days after the first incorporation and be completed before planting. 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 this product. 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, make the second incorporation no deeper than the first.

**Chisel Plow:** This may be used for the first incorporation pass only. Operate at 4 to 5 inches deep and at 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 mph or more. 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.

### **Barley, Spring Seeded (Fall Application) for Weed Control During the Following Season (Minnesota, North Dakota, and South Dakota)**

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

Apply in the Fall for weed control during the following growing season. Incorporate one time within 24 hours. Incorporate a second time before planting to destroy existing weeds and ensure uniform distribution of this product in treated soil. For best weed control results, make the second incorporation at least 5 days after the first.



BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	7.5* (0.75 lb. a.i.)
Fine	7.5* (0.75 lb. a.i.)
*This product applied at 7.5 pounds per acre will provide partial control or suppression of Kochia and Russian thistle.	

**Note:** See “INCORPORATION INSTRUCTIONS / EQUIPMENT” under the “SMALL GRAIN” section for directions.

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

#### Use Precaution

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

#### Use Restriction

- Do not apply this product on Small grains where a dinitroaniline herbicide including this product and Ethalfluralin were applied the previous growing year at a rate greater than 0.5 pound active ingredient per acre.

#### Barley, Spring Seeded (Spring Application) for Foxtail (Pigeongrass) Control (Minnesota, North Dakota, and South Dakota)

Apply in the Spring as a pre-plant 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 ensure uniform distribution of this product in treated soil. For best weed control results, make the second incorporation at least 5 days after the first.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	5 (0.5 lb. a.i.)
Fine	5 (0.5 lb. a.i.)

**Note:** See “INCORPORATION INSTRUCTIONS / EQUIPMENT” under the “SMALL GRAIN” section for directions.

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

#### Use 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 (CRP) (Minnesota, North Dakota and South Dakota)

Apply this product in the Spring as a pre-plant incorporated treatment to control Foxtail (Pigeongrass) 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 ensure uniform distribution of this product in treated soil. For best weed control results, make the second incorporation at least 5 days after the first.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	7.5 (7.5 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)

**Note:** See “INCORPORATION INSTRUCTIONS / EQUIPMENT” under the “SMALL GRAIN” section for directions.

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

### Use Precautions

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

### Barley, Spring Seeded – Spring Application for Foxtail (Pigeongrass) Control in Spring Seeded Barley Grown Under Irrigation (Montana Only)

Apply this product as a pre-plant incorporated treatment for Foxtail (Pigeongrass) control in Spring seeded Barley grown under irrigated conditions in Montana to the ground that has a manageable trash level or has been fallowed or pre-tilled. The first incorporation is required within 24 hours after application. The second incorporation is required prior to planting to destroy emerged weeds and to ensure even distribution of this product in treated soil. For best weed control results, make the second incorporation in a minimum of 5 days after the first.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
All soil types	5 (0.5 lb. a.i.)
*Do not exceed this rate as crop injury may occur.	
*Use 5 pounds of this product (0.5 lb. a.i.) regardless of soil texture or soil organic matter content.	

### Incorporation Directions:

The following tools can be used for soil incorporation:

1. Chisel Plow alone or Chisel Plow with a Rod Weeder attached may be used for the first incorporation pass only. With rod weeder attached, the chisel plow may be used for both incorporation passes. Operate 4 to 5 inches deep and at 4 to 6 mph. A chisel plow is defined as having three rows of up to 18 inch sweeps on no greater than 12 inch centers. Stagger successive rows of sweeps to ensure that no soil is left unturned.
2. Tandem Disc: Operate 3 to 4 inches deep and at 4 to 6 mph.
3. Field Cultivator: Operate 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 spaced at intervals of 7 inches or less. Stagger successive rows of sweeps to ensure that no soil is left unturned.

**Planting Directions:** Plant Barley 1 to 2 inches deep. Planting greater than 2 inches deep will result in increased seedling stress and decreased emergence.

**Irrigation Directions:** Irrigate prior to planting or after crop emergence only. Irrigation between planting and emergence may cause reduced crop stands or delayed emergence because of soil crusting, especially on loose friable seedbeds.

**Use Restrictions:**

- **Rotational Crop Planting Restrictions:** Plant only Barley (grown under irrigated conditions), Rapeseed, Safflower or Sunflower as a rotational crop in the year following the crop treated with this product. If one of these specified rotational crops is not planted, leave the land idle or fallow for the entire crop year following the crop treated with this product.

**Spring Seeded Durum or Wheat - Spring, Pre-plant Incorporated Application for Suppression of Foxtail (Pigeongrass) (North Dakota West of ND Highway Number 3 and in South Dakota)**

Apply this product in the Spring as a pre-plant, incorporated treatment for suppression of Foxtail (Pigeongrass) in Spring seeded Durum or Wheat.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
All soil types	3.5 to 4 (0.35 to 0.4 lb. a.i.)

**Incorporation Directions:** Incorporate this product into the soil within 24 hours of application either by mechanical incorporation or at least 0.5 inch of water (rainfall or irrigation). If needed, incorporate a second time before planting to destroy existing weeds and ensure uniform distribution of product in treated soil. Delay the second incorporation at least 3 to 5 days after the first and complete prior to planting. To avoid bringing untreated soil to the surface, the second incorporation should not be deeper than the first. A chisel plow with sweeps may be used for the first incorporation pass only.

**Note:** See “INCORPORATION INSTRUCTIONS / EQUIPMENT” under the “SMALL GRAIN” section for additional directions.

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

**Spring Seeded Durum or Spring Wheat - Fall Applied, Pre-plant Incorporated for Suppression of Foxtail (Pigeongrass) (North Dakota West of the Red River Valley and in South Dakota)**

Apply this product in the Fall as a pre-plant incorporated treatment for suppression of Foxtail (Pigeongrass) in Spring seeded Durum or Wheat.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	3.5 to 4 (0.35 to 0.4 lb.a.i.)
Medium	3.5 to 4 (0.35 to 0.4 lb. a.i.)
Fine	5 (0.5 lb. a.i.)
*Use the higher rate in the given rate range where heavy weed pressures are anticipated.	

**Incorporation Directions:** Incorporate this product within 24 hours of application either by mechanical incorporation or at least 0.5 inch of water (rainfall or irrigation). If needed, incorporate a second time before planting to destroy existing weeds and ensure uniform distribution of product in treated soil. Delay the second incorporation at least 3 to 5 days after the first and complete prior to planting. To avoid bringing untreated soil to the surface, the second incorporation should not be deeper than the first. A chisel plow with sweeps may be used for the first incorporation pass only.

**Note:** See “INCORPORATION INSTRUCTIONS / EQUIPMENT” under the “SMALL GRAIN” section for additional directions.

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

#### Use Restriction

- Do not apply this product on Small grains where a dinitroaniline herbicide including this product and Ethalfluralin were applied the previous growing season at a rate greater than 0.5 pound active ingredient per acre.

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

Apply this product 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 ensure a uniform distribution of this product in treated soil. Delay the second incorporation minimum of 5 days after the first.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	5 (0.5 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)

**Note:** See “INCORPORATION INSTRUCTIONS / EQUIPMENT” under the “SMALL GRAIN” section for directions.

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

#### Use Precaution

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

#### Winter Wheat – This Product Pre-plant Incorporated to Control Cheatgrass and Other Annual Grasses (Colorado, Idaho, Kansas, Nebraska, Oregon, and Washington)

Apply this product as a pre-plant incorporated treatment up to 3 weeks before planting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	7.5 (0.75 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)
Fine	10 (1 lb. a.i.)

**Incorporation Directions:** Incorporate this product into the soil within 24 hours of application either by mechanical incorporation or at least 0.5 inch of water (rainfall or irrigation). If needed, incorporate a second time before planting to destroy existing weeds and ensure uniform distribution of product in treated soil. Delay the second incorporation at least 3 to 5 days after the first and complete prior to planting. Incorporate this product 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 one time within 24 hours after application. Make a second incorporation pass prior to planting at least 5 days after the first. **Use Restriction:** Do not till the soil with a disc after this product has been incorporated with a flexible tine harrow.

**Planting Directions:** Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone where this product has been incorporated.

### Use Precautions

Avoid planting Wheat directly into the zone of soil treated with this product as delayed emergence or stand reduction may occur. Delayed emergence or slight stand reduction does not normally affect yield.

### Winter Wheat – Pre-plant Incorporated to Control or Suppress Annual Brome Species (Cheatgrass, Downy brome, Japanese brome, Hairy chess) & Jointed Goatgrass (Colorado, Kansas, Nebraska, Oklahoma, South Dakota, Texas and Wyoming)

Apply this product as a pre-plant incorporated treatment for partial control or suppression of the weeds listed above anytime during a period from 3 weeks before planting up to immediately before planting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Medium	5 to 7.5 (0.5 to 0.75 lb. a.i.)
Fine	7.5 (1 lb. a.i.)
*Use the higher rate in the rate range where heavy weed populations are anticipated or where medium to high crop residues are present.	

**Incorporation Directions:** Incorporate this product with tillage equipment such as flexible tine-tooth harrow or springtooth harrow that mixes the soil no more than 1 to 2 inches deep. The grain drill (disc drill or hoe drill) can serve as the incorporation implement. Do not use undercutters or field cultivators for incorporation. Incorporate one time within 24 hours of application.

One pass incorporation is adequate, however, where the grain drill is used as the incorporation tool, mounting a spring tooth harrow in front of the drill can enhance performance.

**Planting Directions:** Use a grain drill that will place the seed below the zone of soil into which this product has been incorporated. either by mechanical incorporation or at least 0.5 inch of water (rainfall or irrigation). Where a tillage tool is used to incorporate before planting, Wheat must be seeded below the soil treated with this product or crop injury may result. Place Wheat seed at least 1.5 to 2 inches deep.

### Use Precautions

- Delayed emergence and development may result from planting Wheat in direct contact with treated soil.
- Do not incorporate with undercutters, field cultivators, chisel plows or discs. Any implement that incorporates this product deeper than the planting depth of Wheat will contribute to crop injury.
- Use of seeding equipment that does not place the seed below the soil layer treated by this product will result in crop injury.
- Use of this product in accordance with the label may result in stand reduction.
- Heavy rainfall before Wheat emergence can cause soil compaction and soil crusting that could result in delayed emergence, stand reduction, stunting and yield loss.

### Winter Wheat - Fallow Soil Application of This Product to Control Annual Grass Prior to Planting (Colorado, Idaho, Kansas, Nebraska, Oregon, and Washington)

Apply and shallowly incorporate this product 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 PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	7.5
Medium	7.5
Fine	10

**Incorporation Directions:** Incorporate this product into the soil within 24 hours of application either by mechanical incorporation or at least 0.5 inch of water (rainfall or irrigation). If a second incorporation is needed, delay 3 to 5 days after the first and complete prior to planting. Incorporate this product 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 two incorporation passes over the field in different directions. Incorporate one time within 24 hours after application. Make a second incorporation pass prior to planting at least 5 days after the first. **Use Restriction:** Do not till the soil with a disc after this product has been incorporated with a flexible tine harrow.

**Planting Directions:** Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone where this product has been incorporated.

**Use Precaution:** Avoid planting Wheat directly into the zone of soil treated with this product as delayed emergence or stand reduction may occur. Delayed emergence or slight stand reduction does not normally affect yield.

### Summer Fallow Weed Control with This Product Followed by Spring Seeded Barley, Durum or Wheat

This product may be applied to coarse medium and fine textured soils to control listed weeds in the Summer fallow period and for control of Foxtail (Pigeongrass) in Barley, Durum or Wheat seeded the following Spring.

This product may be applied to standing stubble or land which has been fallowed or pre-tilled. Reduce existing weeds, surface trash or crop litter 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 PER ACRE		
Time of Application	This Product (Lbs. / Ac.)*	
	Areas Receiving Less than 10" Annual Rainfall	All Other Areas
April 15 to April 30	8.75 (0.875 lb. a.i.)	10 (1 lb. a.i.)
May 1 to May 31	7.5 to 8.75 (0.75 to 0.875 lb. a.i.)	8.75 to 10 (0.875 to 1 lb. a.i.)
June 1 to June 30	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)	7.5 to 8.75 (0.75 to 0.875 lb. a.i.)
July 1 to July 31	5 to 6.25 (0.5 to 0.625 lb. a.i.)	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
August 1 to August 31	5 (0.5 lb. a.i.)	5 to 6.25 (0.5 to 0.625 lb. a.i.)
* Where a rate range is given, use the higher listed rate per acre during the early part of an application period and the lower listed rate per acre during the latter part of an application period.		

**Note:** See *"INCORPORATION INSTRUCTIONS / EQUIPMENT"* under the *"SMALL GRAIN"* section for directions.

**Planting Directions:** Seed approximately 2 inches deep Barley, Durum or Wheat.

#### Use Precaution

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

#### Minimum Tillage for Fall or Spring Application to Ground with Standing Crop Stubble or Crop Residue for Weed Control in Following Crop (Minnesota, North Dakota and South Dakota)

This product may be applied in Fall or Spring to ground with standing crop stubble or crop residue for weed control in the following crop. When applied in this manner, incorporate this product within 72 hours after application. Delay the second incorporation at least 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 to which this product may be applied as a pre-plant incorporated treatment.

**Broadcast Application Rates:** Refer to the use directions for specific crops on this label including application rates and other use information. Apply at the specified 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 including 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 this product, 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.

## SOYBEANS

### SPRING OR FALL APPLICATIONS

Apply and incorporate this product in the Spring prior to planting or in the Fall in advance of Spring application. See *"FALL APPLICATIONS"* under the *"TIMING OF APPLICATION"* section of this label for instructions.

BROADCAST APPLICATION RATES PER ACRE			
Soil Texture	This Product (Lbs. / Ac.)		
	Spring Application*	Fall Application**	Fall Application***
Coarse	5 (0.5 lb. a.i.)	10 (1 lb. a.i.)	10 (1 lb. a.i.)
Medium	7.5 (0.75 lb. a.i.)	10 (1 lb. a.i.)	10 to 15 (1 to 1.5 lb. a.i.)
Fine	10 (1 lb. a.i.)	12.5 (1.25 lb. a.i.)	12.5 to 20 (1.25 to 2 lb. a.i.)
<p>*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter. Use 10 to 12.5 pounds of this product (1 to 1.25 lbs. a.i.) per acre on all soils with 5 to 10% organic matter.</p> <p>**Fall application use rates for Soybeans grown in AL, northern FL, GA, southeastern MO (Bootheel), NC, OK, SC, TN and TX.</p> <p>***Fall application use rates for Soybeans grown in AR, LA and MS.</p> <p><b>For Soybeans grown in other areas:</b> Apply this product in the Fall at broadcast rates listed in this table for Spring application.</p>			

### Use Restriction

- In the Fall, do not apply to soils which are wet, are subject to prolonged periods of flooding or where Rice was grown the previous year.

### PRE-EMERGENCE OVERLAY APPLICATIONS FOLLOWING APPLICATIONS OF THIS PRODUCT (Except California)

Apply this product as a pre-plant incorporated treatment. Additional weeds tolerant to this product may be controlled using pre-emergence overlay applications of products registered for use on Soybeans. Such treatments may be made, unless use following application of this product is specifically prohibited by the product label. Consult the overlay or post-emergence product label for additional weeds controlled, directions for use, precautions, and limitations before use.

### OVERLAY OR POST-EMERGENCE TREATMENTS FOLLOWING APPLICATIONS OF THIS PRODUCT

For broader spectrum weed control, other products registered for use in Soybeans may be applied as overlay or post-emergence treatments following application of this product. Follow the manufacturer's label for additional weeds controlled, directions for use, precautions and use restrictions.

### SPECIAL USE PROGRAMS – SOYBEANS GROWN UNDER REDUCED OR CONSERVATION TILLAGE

Apply in the Fall or Spring as pre-plant incorporated treatment to control weeds in Soybeans grown under reduced or conservation tillage conditions. Make only one application per crop cycle.

Apply to tilled land, standing or chopped stubble from the previous season's crop. Mix this product thoroughly and uniformly into the top 2 to 3 inches of the final seedbed using incorporation equipment leaving a maximum amount of crop residue on the soil surface. Two incorporation passes are needed. The first incorporation have to occur within 24 hours after application. For Fall application, incorporate once in the Fall and a second time in the Spring before planting. For best results with Spring application, incorporate once within 24 hours after application and a second time at least 5 days later.



BROADCAST APPLICATION RATES PER ACRE		
Soil Texture	This Product (Lbs. / Ac.)*	
	Spring Application	Fall Application
Coarse	5 to 7.5 (0.5 to 0.75 lb. a.i.)	7.5 to 10 (0.75 to 1 lb. a.i.)
Medium	7.5 to 10 (0.75 to 1 lb. a.i.)	10 to 12.5 (1 to 1.25 lb. a.i.)
Fine	10 to 12.5 (1 to 1.25 lb. a.i.)	12.5 to 15 1.25 to 1.5 lb. a.i.)
*Use the higher rate in the given rate range where higher crop residues are present or where dense weed populations are expected.		

#### Use Precautions

To be effective, mix thoroughly this product in the top 2 to 3 inches of soil in the final seedbed. Weed control may be poor or erratic where soil conditions or heavy crop residues do not permit thorough soil mixing.

#### COULTER CADDY SYSTEM IN COMBINATION WITH A GRAIN DRILL

When this product is applied in the Fall, the second incorporation can be accomplished with a Coulter Caddy system in combination with a grain drill used for broadcast planting of Soybeans. The most effective soil mixing using this method is obtained when soils are in good tilth and have moderate soil moisture. For best results, equip and operate the Coulter Caddy as follows:

1. Space drills no more than 8 inches apart.
2. Use fluted coulters that are 0.75 to 1.25 inches wide.
3. Set coulters to penetrate the soil to a depth of 1.5 to 2 inches.
4. Operate drill a minimum of 6 mph.
5. Follow the drill by a Furst harrow or two-bar tine harrow to aid in leveling of the soil and crop residue.

**Note:** The Coulter Caddy system is not advised to be used for the second incorporation pass when this product is applied in the Spring.

#### SPEARMINT AND PEPPERMINT (Not for Use in California)

Apply this product to established Spearmint and Peppermint as a soil incorporated treatment to control listed weeds on this label during dormancy or semi-dormancy in late Winter or early Spring or in the Fall prior to the time of germination of target weeds. Late Winter or early Spring application will control susceptible weeds that germinate from early Spring onward into the growing season and Fall application will control susceptible Fall germinating Winter annuals. Use incorporation equipment that will ensure thorough soil mixing with minimal damage to the crop stand. Refer to the "INCORPORATION DIRECTIONS" section for directions.

**Surface Applications Activated by Rainfall or Irrigation:** Surface applications of this product may be activated by rainfall, sprinkler irrigation or flood irrigation. Rainfall or a single overhead sprinkler irrigation of 0.5 acre inch or more is needed to activate this product. If rainfall or irrigation has not occurred within 3 days after application, incorporate mechanically to activate the treatment.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 (0.625 lb. a.i.)
Fine	7.5 (0.75 lb. a.i.)

## SUGAR BEETS

Apply and incorporate when Sugar beet plants are between 2 and 6 inches tall using the following rates. Set incorporation machinery to move treated soil into the row. Set incorporation machinery carefully so it does not damage the Sugar beet taproot. **Note:** Cover exposed Beet roots with soil before application to reduce the possibility of girdling.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
*Use the higher rate in the given rate range in areas receiving more than 20 inches average annual rainfall.	

## SUGARCANE

Apply and incorporate this product 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 to 3 inches deep before Spring application. Take care that incorporation equipment does not damage the seed pieces or emerging shoots.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
All soil types	10 to 20 (1 to 2 lb. a.i.)
*Application rate within rate range may be adjusted according to weed pressure.	

### Applications up to Lay-by for Plant Cane or Ratoon Cane (Louisiana and Texas)

Apply and incorporate this product in the Spring from shortly before or after cane emergence until lay-by. Apply after beds have been shaved or false shaved. Loosen rain-packed beds 2 to 3 inches deep before application. Avoid incorporation equipment damage to seed pieces or emerging shoots. Incorporate with a rolling cultivator or bed chopper for all soil textures. Set rolling cultivator to cut 2 to 4 inches deep and operate at 6 to 8 mph. Set bed chopper to cut 3 to 4 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
All soil types	10 to 20 (1 to 2 lb. a.i.)
*Application rate within rate range may be adjusted according to weed pressure.	

### Itchgrass (Raoulgrass) Control (Louisiana)

Apply and incorporate this product on plant or ratoon cane. Follow use directions in preceding section for lay-by application.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
All soil types	10 to 20 (1 to 2 lb. a.i.)
*Application rate within rate range may be adjusted according to weed pressure.	

## TOMATOES

For direct-seeded Tomatoes, apply at the time of blocking or thinning to the soil between rows and beneath the plants and incorporate. For transplant Tomatoes, apply and incorporate before transplanting.

BROADCAST APPLICATION RATES PER ACRE	
Soil Texture	This Product (Lbs. / Ac.)*
Coarse	5 (0.5 lb. a.i.)
Medium	6.25 to 7.5 (0.625 to 0.75 lb. a.i.)
Fine	7.5 to 10 (0.75 to 1 lb. a.i.)
*Use 7.5 pounds of this product (0.75 lb. a.i.) per acre on coarse and medium textured soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on fine soils with 2 to 5% organic matter. Use 10 pounds of this product (1 lb. a.i.) per acre on all soils with 5 to 10% organic matter.	
*Use the higher rate in the given rate range in areas receiving greater than 20 inches total annual rainfall and irrigation.	

### Use Restriction

- Do not apply this product after transplanting.

## CONTAINER GROWN ORNAMENTALS, LANDSCAPE ORNAMENTALS, NURSERY STOCK, GROUNDCOVERS, ESTABLISHED FLOWERS, ORNAMENTAL BULBS, NON-BEARING FRUIT AND NUT TREES, NON-BEARING VINEYARDS, AND CHRISTMAS TREE PLANTATIONS

This product is for use as a pre-emergence treatment for control of certain annual grasses and broadleaf weeds in container grown ornamentals, landscape ornamentals, nursery stock, groundcovers, established flowers, ornamental bulbs, non-bearing fruit and nut trees, non-bearing vineyards, and Christmas tree plantations.

Apply this product at the rate of 40 pounds per acre (9 lbs./1000 sq. ft.) before or after planting but prior to germination of target weeds or immediately after cultivation.

Length of weed control will vary with weed population, potting media or soil conditions, temperature, watering regime, and other factors.

Following application of this product, monitor and observe level of weed control over time to determine when additional applications may be needed. Repeat application must not be made sooner than 60 days after a previous application of this product.

This product does not control established weeds. Control existing weeds by cultivation or with post-emergence herbicides. Remove weed residues, prunings and trash or thoroughly mix into the soil prior to treatment. Soil must be in good condition and free of clods at the time of application.

A single rainfall or sprinkler irrigation of 0.5 inch or more or flood irrigation is required to activate this product. Optimum weed control is obtained when this product is activated within 3 days of application. If rainfall or irrigation has not occurred within 3 days of application and tillage is possible, this product may be activated using cultivation equipment capable of uniformly mixing the herbicide into the upper 1 to 2 inches of soil. Failure to activate this product within 3 days of application may result in erratic weed control. Do not apply when wind conditions favor drift of this product from the target area to avoid possible injury to unintended target plants. Optimum weed control will be obtained when followed by overhead irrigation or rainfall within a few hours after surface application.

## Use Precautions

To avoid possible injury, do not apply this product to the following:

- Nursery forest or Christmas tree seedling beds, cutting beds or transplant beds.
- Unrooted liners or cuttings that have been planted in pots for the first time.
- Pots less than 4 inches wide.
- Groundcovers until they are established and well rooted.

## Use Restrictions

- Do not apply more than 120 pounds per acre (12 lb. a.i.) total of this product within a 12-month period.
- Do not apply this product to newly transplanted ornamentals, nursery stock, groundcovers, flowers, non-bearing fruits and nut crops and non-bearing vineyards until soil or potting media has been settled by packing and irrigation or rainfall and no cracks are present or injury may occur.
- Do not make pre-plant applications of this product to areas where Gladioli corms less than 1 inch in diameter will be planted or injury may occur.
- Do not apply this product in greenhouse or other enclosed structures.

Users who wish to use this product on plant species not listed on this label may determine suitability for such uses by making trial application of this product at specified rate to small number of plants. Prior to using this product on a larger number of plants, observe treated plants for signs of herbicidal injury during 30 to 60 days of normal growing conditions to determine if the treatment is non-injurious to the target plant species. **The user assumes responsibility for any plant damage or other liability resulting from the use of this product on plant species not listed on this label.**

This product may be used on the following established plant species when container grown or field grown:

## ESTABLISHED FLOWERS

Common Name	Scientific Name
Aaron's beard	<i>Hypericum calycinum</i>
African daisy	<i>Arctotis</i> spp.
Alyssum	<i>Alyssum</i> spp.
Aster (perennial)	<i>Aster</i> spp.
Baby's breath	<i>Gypsophila paniculata</i>
Balsam	<i>Impatiens balsamina</i>
Beard tongue*	<i>Penstemon barbatus</i>
Bee balm*	<i>Monarda didyma</i>
Begonia*	<i>Begonia</i> spp.
Blackeyed Susan	<i>Rudbeckia hirta</i>
Bleeding heart*	<i>Dicentra eximia</i>
Calendula	<i>Calendula officianalis</i>
California poppy	<i>Eschscholzia californica</i>
Chrysanthemum	<i>Chrysanthemum</i> spp.
Common foxglove*	<i>Digitalis purpurea</i>
Coral bells*	<i>Heuchera</i> spp.
Coreopsis	<i>Coreopsis</i> spp.
Cornflower	<i>Centaurea cyanus</i>
Cosmos	<i>Cosmos</i> spp.
Dahlia	<i>Dahlia</i> spp.
Dianthus	<i>Dianthus</i> spp.
Dusty miller	<i>Artemisia stellerana</i>
English lavender*	<i>Lavandula angustifolia</i>
Floss flower	<i>Ageratum houstonianum</i>
Forget-me-not	<i>Myosotis</i> spp.
Four o'clock	<i>Mirabilis jalapa</i>
Foxglove	<i>Digitalis mertonensis</i>
Gaillardia	<i>Gaillardia</i> spp.
Gayfeather*	<i>Liatris spicata</i>
Geranium*	<i>Geranium</i> spp.
Geum	<i>Geum</i> spp.
Gladiolus	<i>Gladiolus</i> spp.
Golden glow	<i>Rudbeckia laciniata</i>

Guara*	<i>Guara lindheimeri</i>
Impatiens	<i>Impatiens</i> spp.
Iris*	<i>Iris</i> spp.
Ixora	<i>Ixora</i> spp.
Lamb's ears	<i>Stachys</i> spp.
Lobelia	<i>Lobelia</i> spp.
Lupine	<i>Lupinus</i> spp.
Marigold	<i>Tagetes</i> spp.
Marigold, cape	<i>Dimorphotheca</i> spp.
Morningglory	<i>Convolvulus</i> spp.
Nasturtium	<i>Tropaeolum</i> spp.
Nicotiana	<i>Nicotiana</i> spp.
Ozark sundrop*	<i>Oenothera missouriensis</i>
Painted daisy*	<i>Tanacetum coccineum</i>
Petunia	<i>Petunia hybrida</i>
Phlox	<i>Phlox</i> spp.
Pincushion flower	<i>Scabiosa</i> spp.
Poppy, California	<i>Papaver</i> spp.
Portulaca	<i>Portulaca grandiflora</i>
Purple coneflower*	<i>Echinacea purpurea</i>
Rose	<i>Rosa</i> spp.
Russian sage*	<i>Perovskia atriplicifolia</i>
Salvia	<i>Salvia</i> spp.
Shasta daisy*	<i>Leucanthemum superbum</i>
Silver mound*	<i>Artemisia schmidtiana</i>
Snapdragon	<i>Antirrhinum majus</i>
Snow-on-the-mountain	<i>Euphorbia marginata</i>
Speedwell	<i>Veronica spicata</i>
Statice	<i>Limonium</i> spp.
Stock	<i>Matthiola</i> spp.
Stoke's aster	<i>Stokesia laevis</i>
Stonecrop	<i>Sedum spectabile</i>
Sunflower	<i>Helianthus</i> spp.
Sweet alyssum	<i>Lobularia maritima</i>
Sweet pea	<i>Lathyrus odoratus</i>
Sweet sultan	<i>Centaurea moschata</i>
Velvet centaurea	<i>Centaurea gymnocarpa</i>
Vinca	<i>Vinca</i> spp.
Yarrow	<i>Achillea</i> spp.
Zinnia	<i>Zinnia</i> spp.
*Not for use in California on this Ornamental.	

## GROUNDCOVERS

Common Name	Scientific Name
Aaron's beard	<i>Hypericum</i> spp.
Albo-marginata hosta	<i>Hosta lancifolia</i>
Algerian ivy	<i>Hedera canariensis</i>
Angelwing jasmine	<i>Jasminum nitidum</i>
Asian jasmine	<i>Trachelospermum asiaticum</i>
Asparagus fern	<i>Asparagus densiflorus</i>
Beechgrass	<i>Ammophila breviligulata</i>
Bellflower	<i>Campanula</i> spp.
Big blue lily turf	<i>Liriope muscari</i>
Blue fescue	<i>Festuca ovina glauca</i>
Cape weed	<i>Arctotheca calendula</i>
Carpet bugle*	<i>Ajuga</i> spp.
Coreopsis	<i>Coreopsis</i> spp.
Cotoneaster	<i>Cotoneaster</i> spp.
Creeping wirevine	<i>Muehlenbeckia axillaris</i>

Crown vetch	<i>Coronilla vana</i>
Daylily	<i>Heemerocallis</i> spp.
Descampsia	<i>Descampsia caespitosa</i>
Dwarf mondo grass	<i>Ophiopogon japonicas</i>
Dwarf plumbago	<i>Ceratostigma plumbaginoides</i>
English ivy	<i>Hedera helix</i>
Eulalia grass	<i>Miscanthus sinensis</i>
Fountain grass	<i>Pennisetum alopecuroides</i>
Gazania	<i>Gazania</i> spp.
Germander	<i>Teucrium chamaedrys</i>
Golden hakonechloa	<i>Hakonechloa macroaureola</i>
Green/creeping lily turf	<i>Liriope spicata</i>
Iceplant	<i>Drosantheumum hispidum</i>
Japanese spurge	<i>Pachysandra terminalis</i>
Large leaf iceplant	<i>Carpobrotus edulis</i>
Lilac beauty lily turf	
Lily-of-the-nile	<i>Agapanthus</i> spp.
Majestic lily turf	
Mondo grass	
Myoporum	<i>Myoporum laetum</i>
Pampas grass	<i>Cortaderia selloana</i>
Periwinkle	<i>Vinca</i> spp.
Ribbon grass	<i>Phalaris arundinacea picta</i>
Rock rose	<i>Cistus</i> spp.
Rupturewort	<i>Herniaria glabra</i>
Silvery sun proof lily turf	
Speedwell	<i>Veronica</i> spp.
St. Johnswort	
Stonecrop (Sedum)	<i>Sedum</i> spp.
Strawberry, beach	<i>Fragaria chiloensis</i>
Thrift	<i>Armeria maritima</i>
Trailing African daisy	<i>Osteospermum fruticosum</i>
Trailing iceplant	<i>Lampranthus spectabilis</i>
Trailing rosea iceplant	<i>Drosantheumum floribundum</i>
Variegated carex	<i>Carex</i> spp.
Variegated liriope lily turf	
Verbena	<i>Verbena</i> spp.
White iceplant	<i>Delosperma alba</i>
White lily turf	<i>Liriope gigantea</i>
Woolly yarrow	<i>Achillea tomentosa</i>
*Not for use in California on this groundcover.	

## ORNAMENTAL SHRUBS

Scientific Name	Common Name
<i>Abelia grandiflora</i>	Edward goucher abelia
<i>Acacia abyssinica</i>	Glossy abelia
<i>Acacia redolens</i>	Abyssinica acacia
<i>Acacia stenophylla</i>	Prostrate acacia
<i>Acalypha wilkesiana</i>	Shoestring acacia
<i>Acer ginnala</i>	Copper leaf
<i>Acer palmatum</i>	Amur maple
	Coral bark Japanese maple
	Dwarf Japanese maple
<i>Agave americana</i>	Century plant
<i>Astilbe chinensis</i>	False spiraea
<i>Athyrium nipponicum</i>	Japanese painted fern
<i>Baccharis pilularis</i>	Coyotebush
<i>Berberis gladwynensis</i>	William penn barberry
<i>Berberis mentorensis</i>	Mentor barberry
<i>Berberis thunbergii</i>	Atropurea-redleaf Japanese barberry
	Aurea-golden Japanese barberry
	Crimson pygmy barberry
	Rose glow barberry
<i>Bougainvillea</i> spp.	Barbara karst
	California gold
	Pink pixie
	Scarlet o'hara
	Temple fire
	Texas dawn
<i>Buxus microphylla japonica</i>	Japanese boxwood
<i>Buxus microphylla Koreana</i>	Korean boxwood
<i>Buxus sempervirens</i>	Common boxwood
<i>Callistemon citrinus</i>	Lemon bottlebrush
<i>Callistemon viminalis</i>	Weeping bottlebrush
<i>Calluna vulgaris</i>	Spring torch scotch heather
<i>Camellia sasanqua</i>	Sasanqua camellia
<i>Camellia japonica</i>	Japanese camellia
<i>Cassia artemisioides</i>	Feathery cassia
<i>Ceanothus</i> spp.	Wild lilac
<i>Cephalotaxus drupacea</i>	Plum yew
<i>Cerastium tomentosum</i>	Snow-in-summer
<i>Chamaecyparis obtusa</i> spp.	Kosteri cypress
	Nana-dwarf hinoki cypress
	Torulosa cypress
<i>Chamaecyparis pisifera</i>	Filifera-thread cypress
<i>Chrysalidocarpus lutescens</i>	Areca palm
<i>Clethra alnifolia</i>	Summersweet
<i>Cleyera japonica</i>	Japanese cleyera
<i>Cornus alba</i>	Sibirica-siberian dogwood
<i>Cornus stolonifera</i>	Baileyi red osier dogwood
	Flaviramea-yellowtwig dogwood
<i>Cotinus coggygia</i>	Royal purple smoke tree
<i>Cotinus dammeri</i>	Coral beauty smoke tree
	Eichholz smoke tree
<i>Cotoneaster adpressus</i>	Praecox-early cotoneaster
<i>Cotoneaster apiculatus</i>	Cranberry cotoneaster
<i>Cotoneaster congestus</i>	Pyrenees cotoneaster
<i>Cotoneaster dammeri</i>	Bearberry cotoneaster
<i>Cotoneaster himalayan</i>	Himalayan cotoneaster
<i>Cotoneaster horizontalis</i>	Rock cotoneaster

<i>Cotoneaster zabelii</i>	Zabel cotoneaster
<i>Cycas revoluta</i>	Sago palm
<i>Cytisus praecox</i>	Hollandia-warminster broom
<i>Cytisus scoparius</i>	Lena-Scotch broom
<i>Daphne odora</i>	Fragrant daphne
<i>Deutzia</i> spp.	Deutzia
<i>Dodonea viscosa</i>	Hopseed bush
<i>Elaeagnus pungens</i>	Fruitland silver berry
<i>Erica cinerea</i>	Purple bell heather
<i>Erica x darleyensa</i>	Mediterranean pink heather
<i>Erica vagans</i>	Cornish heather
<i>Euonymus alatus</i>	Winged euonymus
<i>Euonymus fortunei</i>	Canadale gold euonymus
	Emerald 'n gold euonymus
	Sunspot euonymus
	Wintercreeper euonymus
<i>Euonymus japonica</i>	Silver king-euonymus
	Variegated evergreen euonymus
<i>Euonymus kiautschovica</i>	Spreading euonymus
<i>Feijoa sellowiana</i>	Pineapple guava
<i>Forsythia</i> spp.	Forsythia
<i>Gardenia jasminoides</i>	August beauty gardenia
	Gardenia
	Radican gardenia
<i>Gaultheria shallon</i>	Salai/lemon leaf
<i>Gelsemium sempervirens</i>	Carolina jessamine
<i>Genista pilosa</i>	Woadwaxen
<i>Hibiscus rosa-sinensis</i>	Ross estey-hibiscus
<i>Hibiscus syriacus</i>	Rose of sharon-heart
	Rose of sharon-red bird
	Rose of sharon-woodbridge
<i>Ilex</i> spp.	Holly
<i>Illicium annisatum</i>	Mystery gardenia
<i>Itea ilicifolia</i>	Henry garnet holly leaf sweetspire
<i>Ixora collinea</i>	Ixora
<i>Juniperus</i> spp.	Juniper
<i>Kalmia latifolia</i>	Mountain laurel
<i>Lagerstroemia indica</i>	Crepe myrtle
<i>Lantana</i> spp.	Lantana
<i>Leucothoe axil/aris</i>	Coast leucothoe
<i>Leucothoe fontainesiana</i>	Drooping leucothoe
<i>Ligustrum</i> spp.	Privet
<i>Livistona chinensis</i>	Chinese fountain palm
<i>Lonicera periclymenum</i>	Flowering woodbine
	Serotina woodbine
<i>Lonicera sempervirens</i>	Trumpet honeysuckle
<i>Mahonia bealei</i>	Leather leaf mahonia
<i>Mahonia repens</i>	Creeping mahonia
<i>Myrica cerifera</i>	Wax myrtle
<i>Nandina domestica</i>	Compacta-dwarf heavenly bamboo
	Harbour dwarf-heavenly bamboo
	Heavenly bamboo
	Nana compacta-heavenly bamboo
	Nana purpurea-heavenly bamboo
	Woods dwarf heavenly bamboo
<i>Nerium oleander</i>	Hardy red oleander
	Oleander
	Ruby lace oleander
<i>Osmanthus fortunei</i>	Fortunes osmanthus



<i>Philadelphus</i> spp.	Mockorange
<i>Phoenix roeloenii</i>	Pigmy date palm
<i>Photinia fraseri</i>	Fraser's photinia
<i>Pieris japonica</i>	Japanese andromeda
	Mountain fire lily-of-the-valley
	Snowdrift lily-of-the-valley
	Templebells lily-of-the-valley
	Valley rose lily-of-the-valley
	Valley valentine lily-of-the-valley
<i>Pieris japonica x forestii</i>	Forest flame lily-of-the-valley
<i>Pinus mugo</i>	Mugo-mugho pine
<i>Pittosporum tobira</i>	Green pittosporum
	Japanese pittosporum
	Wheeler's dwarf pittosporum
<i>Plumbago ariculata</i>	Blue cape plumbago
<i>Plumbago capensis</i>	Plumbago
<i>Podocarpus macrophyllus</i>	Yewpine
<i>Polystichum polyblepharum</i>	Tassel fern
<i>Potentilla</i> spp.	Cinquefoil
<i>Prunus caroliniana</i>	Carolina laurel cherry
<i>Prunus gladulosa</i>	Dwarf pink flowering almond
<i>Pyracantha</i> spp.	Pyracantha
<i>Rhaphiolepis indica</i>	Charisma-monruce raphiolepis
	Enchantress-moness raphiolepis
	India hawthorn
	Springtime-monme raphiolepis
<i>Rhaphiolepis ovata</i>	Round leaf raphiolepis
<i>Rhododendron</i> spp.	Azalea/rhododendron
<i>Rhus lancea</i>	Africa sumac
<i>Rosa rugosa</i>	Ramanas rose
<i>Rosmarinus officinalis</i>	Rosemary
<i>Skimmia japonica</i>	Japanese skimmia
<i>Skimmia revesiana</i>	Reeve's skimmia
<i>Spiraea bumalda</i>	Anthony waterer spiraea
<i>Spiraea japonica</i>	Dolchia spiraea
	Japanese alpine spiraea
	Shiobana spiraea
<i>Spiraea vanhouttii</i>	Bridal wreath
<i>Syringa rothomagensis</i>	Chinese lilac
<i>Syringa vulgaris</i>	Common lilac
<i>Taxus cuspidata</i>	Upright Japanese yew
<i>Taxus media</i>	Anglojap yew
<i>Tecomaria capensis</i>	Cape honeysuckle
<i>Ternstroemia gymnanthera</i>	
<i>Thuja occidentalis</i>	American arborvitae
	Emerald arborvitae
	Globosa-globe arborvitae
	Little giant-dwarf arborvitae
	Nigra-dark American arborvitae
	Pyramidalis-pyramid arborvitae
	Rheingold arborvitae
	Techny arborvitae
<i>Thuja orientalis</i>	Aureus nana-dwarf golden arborvitae
	Minima glauca-dwarf arborvitae
<i>Veitchia merrilli</i>	Christmas palm
<i>Viburnum</i> spp.	Viburnum
<i>Weigela</i> spp.	Weigela
<i>Xylosma congestum</i>	Xylosma
<i>Yucca filamentosa</i>	Yucca

## TREES

Scientific Name	Common Name
<i>Abies balsamea</i>	Balsam fir
<i>Abies concolor</i>	White fir
<i>Abutilon hybridum</i>	Albus-flowering maple
	Luteus-flowering maple
	Roseus-flowering maple
	Tangerine-flowering maple
	Vesuvius red-flowering maple
<i>Acer ginnala</i>	Flame maple
<i>Acer platanoides</i>	Norway maple
<i>Acer rubrum</i>	Red maple
	Red sunset maple
<i>Acer saccharinum</i>	Silver maple
<i>Acer saccharum</i>	Sugar maple
<i>Areacastrum romanzoffianum</i>	Queen palm
<i>Betula nigra</i>	River birch
<i>Betula papyrifera</i>	Paper birch
<i>Betula pendula</i>	European white birch
<i>Brachychiton populneus</i>	Bottle tree
<i>Bucida buceras</i>	Black olive
<i>Castanea mollissima</i>	Chinese chestnut
<i>Ceratonía siliqua</i>	Carob
<i>Cercis canadensis</i>	Redbud
<i>Chamaecyparis obtusa</i>	Filicoides-fernspray cypress
	Gracilis-slender hinoki cypress
<i>Chamaecyparis pisifera</i>	Swara false cypress
	Squarrosa-moss cypress
<i>Chamaedorea cataractarum</i>	Palm
<i>Chamaedorea costaricana</i>	Palm
<i>Chamaedorea elegans</i>	Parlor palm
<i>Cornus florida</i>	Cloud nine dogwood
	Flowering dogwood
<i>Cornus kousa</i>	Dogwood, Kousa
<i>Crataegus viridis</i>	Green hawthorn
<i>Cupaniopsis anacardioides</i>	Carrot wood
<i>Cupressus glabra</i>	Arizona cypress
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Eucalyptus camaldulensis</i>	Redgum eucalyptus
<i>Eucalyptus cinerea</i>	Mealy eucalyptus
	Silver dollar eucalyptus
<i>Eucalyptus microtheca</i>	Coolibah tree
<i>Eucalyptus sideroxylon</i>	Red ironbark eucalyptus
<i>Ficus benjamina</i>	Ficus
	Mini ficus
<i>Fraxinus americana</i>	White ash
<i>Fraxinus udhei</i>	Shamel ash
<i>Ginko biloba</i>	Ginko-maidenhair tree
<i>Gleditsia triacanthos</i>	Honey locust
	Shademaster honey locust
<i>Heteromeles arbutiflora</i>	Toyon
<i>Illicium floridanum</i>	Florida anise-tree
<i>Juniperus virginiana</i>	Eastern red cedar
<i>Larix kaempferi</i>	Japanese larch
<i>Liquidambar styraciflua</i>	American sweet gum
<i>Liriodendron tulipifera</i>	Tuliptree
<i>Magnolia spp.</i>	Magnolia

<i>Malus</i> spp.	Crabapple
<i>Morus alba</i>	White mulberry
<i>Musa aluminata</i>	Banana
<i>Nyssa sylvatica</i>	Blackgum
<i>Oxydendrum arboreum</i>	Sourwood
<i>Picea abies</i>	Norway spruce
	Pendula-weeping Norway spruce
	Repens-spreading Norway spruce
<i>Picea glauca conica</i>	Dwarf Alberta spruce
<i>Picea glauca</i>	White spruce
<i>Picea pungens</i>	Dwarf globe blue spruce
	Glaucia-Colorado blue spruce
	Hoopsii-hoop's blue spruce
	Koster-koster blue spruce
<i>Pinus aristata</i>	Bristlecone pine
<i>Pinus canariensis</i>	Canary island pine
<i>Pinus contorta</i>	Shore pine, beach pine
<i>Pinus eldarica</i>	Eldarica pine
<i>Pinus leucodermis</i>	Bosnian pine
<i>Pinus mugo</i>	Pumilio-shrubby Swiss mountain pine
<i>Pinus nigra</i>	Austrian black pine
<i>Pinus radiata</i>	Monterey pine
<i>Pinus resinosa</i>	Red pine
<i>Pinus taeda</i>	Loblolly pine
<i>Pinus strobus</i>	White pine
<i>Pinus sylvestris</i>	Columnar Scotch pine
	Scotch pine
<i>Pinus thunbergiana</i>	Japanese black pine
<i>Platanus acerifolia</i>	London planetree
<i>Platanus occidentalis</i>	American sycamore
<i>Platanus racemosa</i>	California sycamore
<i>Podocarpus</i> spp.	Podocarpus
<i>Populus deltoides</i>	Cottonwood
<i>Prosopis chilensis</i>	Chilean mesquite
<i>Prunus yedoensis</i>	Yoshino flowering cherry
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Quercus coccinea</i>	Scarlet oak
<i>Quercus ilicifolia</i>	Bear oak
<i>Quercus palustris</i>	Pin oak
<i>Quercus phellos</i>	Willow oak
<i>Quercus rubra</i>	Red oak
<i>Quercus virginiana</i>	Live oak
<i>Robinia pseudoacacia</i>	Black locust
<i>Salix</i> spp.	Willow
<i>Sequoia dendron giganteum</i>	Giant sequoia
<i>Swietenia mahogani</i>	Mahogany
<i>Tabebuia caraiba</i>	Yellow tab
<i>Taxodium distichum</i>	Bald cypress
<i>Tilia</i> spp.	Linden
<i>Tsuga canadensis</i>	Eastern hemlock
<i>Ulmus parvifolia</i>	Chinese elm
<i>Washingtonia robusta</i>	Mexican fan palm

## ORNAMENTAL BULBS

This product may be applied for control of susceptible annual weeds in ornamental bulbs, e.g., bulbous Iris, Daffodil (Narcissus), Hyacinth, and Tulip. Apply this product to the soil surface 2 to 4 weeks after planting, but prior to the emergence of annual weeds. This product may also be applied following bulb emergence. For Fall planted bulbs, apply this product again in late Winter or early Spring to weed-free soil surfaces.

## NON-BEARING FRUIT AND NUT TREES AND NON-BEARING VINEYARDS\*

Almond Apple Apricot Avocado Blackberry Blueberry Boysenberry Cherry, sour Cherry, sweet Citrus Currant Dewberry Elderberry	Fig Filbert Gooseberry Grape, American Grape, European Grapefruit Kiwi Lemon Loganberry Macadamia nut Nectarine Olive	Orange Peach Pear Pecan Pistachio Plum Pomegranate Prune Raspberry Walnut, black Walnut, English
* Non-bearing fruit and nut trees and non-bearing vineyards are defined as plants that will not bear fruit for at least one year after treatment.		

## CHRISTMAS TREE PLANTATIONS

Apply this product to established plantings of field grown Christmas tree species listed on this label. Apply only to established plantings. Established plants are defined as those that have been transplanted into their final growing location for a sufficient period of time to allow the soil to be firmly settled around the roots from packing and rainfall or irrigation.

### Use Restriction

- Do not apply to seedbeds or seedling transplant beds.

## NON-CROPLAND AREAS

This product may be applied as a pre-emergence herbicide to control certain annual grasses and broadleaf weeds on industrial sites, utility substations, highway guard rails, sign posts and delineators.

Apply this product any time prior to germination of target weeds. Apply to areas free of established weeds or control existing weeds with post-emergence herbicides.

## POT NURSERY PRODUCTION OF TREES AND SHRUBS

This product may be used to control excess rooting between the socket pot and the growing pot. This product will reduce the rooting out from the growing container.

Apply this product in the socket pot before the growing pot is inserted at the rate corresponding to the container size below. Use the higher rate in the given rate range for aggressive rooting species.

Pot Size (Nursery Gals.)	This Product Per Pot	
	Grams	Tsp.
5	1 to 1.5	0.5
7	1 to 2	0.75
10	1.5 to 3	1
15	1.6 to 3.2	1 to 1.5
20	2.4 to 4.8	1 to 2
25	3 to 5.8	2 to 3
30	3.3 to 6.5	3 to 4

## UNDER PAVED SURFACES

### Site Preparation

Use only this product where the soil to be treated has been prepared according to good construction practices. If rhizomes, stolon, tubers or other vegetative plant parts are present in the site, remove them by scalping with grader blade to a depth sufficient to ensure their complete removal.

### Application

Applications may be made after the final grade is established or after the base rock has been added. **Use Restriction:** Do not move soil after application of this product and do not apply this product to soil where asphalt may be laid directly on top of the soil.

Pave as soon as possible after application of this product.

Apply this product to ensure thorough coverage of the base rock layer. Apply with any granular applicator that will apply uniformly.

Apply the following amount of this product:

Amount of This Product (Lbs.)	
Per Acre	Per 1000 Sq. Ft.
120 to 160 (12 to 16 lb. a.i.)	2.75 to 3.65 (0.275 to 0.365 lb. a.i.)

## STORAGE AND DISPOSAL

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

**STORAGE:** Store in original container. In case of leak or spill, contain material and dispose as waste.

**PESTICIDE DISPOSAL:** To avoid waste, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often, such programs are run by State or local governments or by industry).

### CONTAINER HANDLING:

**Nonrefillable Container (flexible-bag-all weights):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty container in a sanitary landfill or by incineration or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid-fifty lbs. or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid-greater than fifty lbs.):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Refillable Container:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

## **WARRANTY—CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Manufactured By:



**Drexel Chemical Company**

P.O. BOX 13327, MEMPHIS, TN 38113-0327

**SINCE 1972**

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## **[EDITORIAL NOTES]**

The following unit of measures found in the Tables under the “*DIRECTIONS FOR USE*” section can be formatted using the following optional abbreviations:

- Pounds – lbs.; lb.
- Acre – Ac.
- Acre - A
- per - /