

67959-4

9/13/2004

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

SEP 13 2004

James K Hines  
Tri Corp  
10260 Westheimer Road - Suite 230  
Houston, TX 77042

Dear Mr. Hines:

Subject: Delete Use on Eggplants and Onions and Label Updates  
Trilin  
EPA Registration No. 67959-4 ✓  
Griffin L.L.C. Submissions Dated September 20 and November 26,  
2002

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
  - Assure that the label reflects the transfer of ownership as specified by EPA's letter dated February 20, 2004.
2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records. The amended labeling supersedes all previously accepted ones.

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If you have any questions concerning this letter, please contact Mr. James Stone at 703-305-7391.

Sincerely yours,

/s/

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

Enclosure

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# TRILIN®

## HERBICIDE

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

### ACTIVE INGREDIENT

Trifluralin

(a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine) . . . . . 42.8%

**INERT INGREDIENTS** . . . . . 57.2%

**TOTAL** . . . . . 100.0%

Contains 4 pounds trifluralin per gallon  
Contains Petroleum Distillate

ACCEPTED  
with COMMENTS  
in EPA Letter Dated  
**SEP 13 2004**

**KEEP OUT OF REACH OF CHILDREN**

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

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<b>FIRST AID</b>	
If swallowed	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have a person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor</li> <li>• <u>Do not give anything by mouth to an unconscious person.</u></li> </ul>
If inhaled	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies involving this product, call toll free 1-888-324-7598.	
<b>NOTE TO PHYSICIAN</b>	
This product may pose an aspiration pneumonia hazard.	
See label for additional Precautions and Directions for Use	

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Griffin LLC  
Valdosta, GA 31601

Net Contents \_\_\_\_\_

EPA Reg. No. 1812-355  
EPA Est. No.: \_\_\_\_\_

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

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, or viton  $\geq$  14 mils
- Shoes plus socks

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

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

**USER SAFETY RECOMMENDATIONS**

Users should:

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

**ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to freshwater marine and estuarine fish and aquatic invertebrates including shrimp and oyster. Do not apply in a manner which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when cleaning

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equipment or disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for 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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: If product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves, such as barrier laminate, or viton > 14 mils
- Shoes plus socks

#### NON-AGRICULTURAL USE REQUIREMENTS

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

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Avoid freezing. Store above 40°F. If frozen, poor weed control may result. Do not store near heat or flame.

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

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

## **GENERAL INSTRUCTIONS AND INFORMATION CHEMIGATION**

### **General Instructions**

Apply Trilin only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move or drip irrigation systems. Do not apply Trilin through any other type of irrigation system.

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

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety device for public water systems is in place.

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

### **Specific Instructions for Public Water Systems**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced - pressure zone, backflow preventer, (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

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The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Specific Instructions for Sprinkler Irrigation Systems**

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Good agitation is required in the injection tank.

In moving systems, apply specified dosage of Trilin as a continuous injection. In non-moving systems inject Trilin for 15 to 20 minutes at end of cycle. Use the least amount of water possible for uniform coverage.

Mix the amount of Trilin needed for acreage to be treated into the quantity of water determined during prior calibration (refer to Mixing and Application Directions). For moving systems inject into the system continuously for one complete revolution of the field. For non-moving systems inject into system for the time established during calibration.

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Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all Trilin is flushed from system.

## **AERIAL SPRAY DRIFT REDUCTION ADVISORY INFORMATION**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

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

### **INFORMATION ON DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

### **CONTROLLING DROPLET SIZE**

**Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift



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nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **BOOM LENGTH**

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

### **APPLICATION HEIGHT**

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

### **SWATH ADJUSTMENT**

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

### **WIND**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

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

**SENSITIVE AREAS**

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

**GENERAL INFORMATION**

Trilin is a preemergence herbicide which is incorporated into the soil to provide control of grasses and broadleaf weeds. Trilin controls weeds as they germinate. Trilin will not control established weeds.

**GRASSES AND BROADLEAF WEEDS CONTROLLED BY Trilin**

**Grasses**

Annual Bluegrass	<u>Poa annua</u>
Barnyardgrass (Watergrass)	<u>Echinochloa sp.</u>
Brachiaria (Signalgrass)	<u>Brachiaria sp.</u>
Bromegrass	<u>Bromus tectorum</u>
(Cheatgrass)	
(Downy Brome)	
Cheat (chess)	<u>Bromus secalinus</u>
Crabgrass	<u>Digitaria spp.</u>
(Large Crabgrass)	
(Smooth Crabgrass)	
Foxtail	<u>Setaria spp.</u>
(Bottlegrass)	
(Bristlegrass)	
(Giant Foxtail)	
(Green Foxtail)	
(Foxtail Millet)	
(Pigeongrass)	
(Robust Foxtail)	
(Yellow Foxtail)	
Itchgrass (Raoulgrass)	<u>Rottboellia exaltata</u>
(See Sugarcane for special instructions)	
Johnsongrass (from seed)	<u>Sorghum halepense</u>
(Rhizome - see special instructions for control in Cotton, Soybeans, Fruit and Nut Crops, Vineyards and Cottonwood Trees Grown for Pulpwood)	
Junglerice	<u>Echinochloa colonum</u>
Panicum	
Fall Panicum	<u>Panicum dichotomiflorum</u>
(Spreading Panicgrass - see special instructions in Cotton and Soybeans)	
Guineagrass	<u>Panicum maximum</u>
(See sugarcane for special instructions)	

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Texas Panicum (See special instructions in Cotton and Soybeans) (Buffalograss) (Coloradograss)	<u>Panicum texanum</u>
Red Rice (See suppression or partial control directions under Soybeans)	<u>Oryza sativa</u>
Sandbur (Burggrass)	<u>Cenchrus incertus</u>
Sprangletop	<u>Leptochloa filiformis</u>
Stinkgrass (Lovegrass)	<u>Eragrostis cilianensis</u>
Wild Cane (Shattercane) (See Soybean - Trilin Along for special instructions)	<u>Sorghum bicolor</u>
Woolly Cupgrass	<u>Eriochloa villosa</u>

**Broadleaf Weeds**

Carpetweed	<u>Mollugo verticillata</u>
Chickweed	<u>Stellaria media</u>
Field Bindweed (See Fruit and Nut Crops and Vineyards for special instructions)	<u>Convolvulus arvensis</u>
Florida Pusley (Florida Purslane) (Mexican Clover) (Pusley)	<u>Richardia scabra</u>
Goosefoot	<u>Chenopodium hybridum</u>
Henbit (fall application only)	<u>Lamium amplexicaule</u>
Knotweed	<u>Polygonum aviculare</u>
Kochia (Fireweed) (Mexican Fireweed)	<u>Kochia scoparia</u>
Lambsquarters	<u>Chenopodium album</u>
Pigweed (Carelessweed) (Prostrate Pigweed) (Redroot) (Rough Pigweed) (Spiny Pigweed)	<u>Amaranthus spp.</u>
Puncturevine (Western U.S. only) (Caltrop) (Goathead)	<u>Tribulus terrestris</u>
Purslane	<u>Portulaca oleracea</u>
Russian Thistle (Tumbleweed)	<u>Salsola kali</u>
Stinging Nettle (Nettle)	<u>Urtica dioica</u>

Long term and continued use of trifluralin has resulted in the selection of tolerant populations in certain species of weeds. This situation is limited to a few weeds and is generally geographically specific. Weed species known to have some trifluralin tolerant population are goosegrass, green foxtail (pigeongrass) and Palmer amaranthus (Palmer pigweed). Trilin is not recommended for the control of goosegrass, tolerant green foxtail or Palmer amaranthus. Consult State Agricultural Extension Service or Experiment Station weed specialists for specific recommendations for local weed problems.

### SOIL PREPARATION

Soil surface should be smooth enough to enable the efficient use of sprayer and incorporation equipment to insure a uniform application and incorporation of Trilin. Interference can be caused by ground cover such as crop residue or existing weeds. Soil should be tilled prior to the application of Trilin to allow uniform incorporation into the top 2 to 3 inches of soil. Soil moisture should be such that any large clods will be broken up during incorporation process.

#### Crop Residues or Existing Weeds

Ground cover such as crop residues or existing weeds can interfere with the incorporation of Trilin into the soil. A manageable level of such ground cover will allow the Trilin to be uniformly incorporated into the top 2 to 3 inches of soil. If the level of the ground cover is such that this cannot be done you must till the soil prior to the application of Trilin.

#### Roughness

The soil surface should be smooth enough so that you can operate a sprayer and incorporation equipment efficiently and at speeds which insure a uniform application and incorporation of Trilin.

#### General Soil Conditions

To assure incorporation of Trilin, soil moisture conditions should be such that any large clods can be broken up during the incorporation process.

### SOIL TEXTURE GUIDE

The amount of chemical applied will vary with the soil texture and organic matter. A fine textured soil will require more Trilin per acre than a coarse soil. Where rates are based on coarse, medium or fine textured soils, it is understood that soil textural classes are generally categorized as follows:

<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Sand	Loam	Sandy Clay
Loamy Sand	Silt	Clay Loam
Sandy Loam	Silt Loam	Silty Clay, Clay
	Silty Clay Loam*	
	Sandy Clay Loam*	

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\*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 mostly sand or silt, they are usually classified as medium textured soils. If they are mostly clay, they are usually classified as fine textured soils.

Do not exceed recommended rates.

## **INCORPORATION DIRECTIONS**

### **General Directions**

Erratic weed control and/or crop injury may result if Trilin is not incorporated into the top 2 to 3 inches of the final seedbed.

### **Before Planting**

Initial incorporation of Trilin must take place within 24 hours after application. A second incorporation prior to planting should be done by running the equipment in a different direction from the first. Incorporate Trilin uniformly into the top 2 to 3 inches of the final seedbed.

### **After Planting**

For directions concerning incorporation after planting check label for crop or crops of interest for specific instructions.

### **72 Hour Incorporation Delay - Arizona and California Only**

When Trilin is applied as a preplant incorporated treatment, the first incorporation pass must be accomplished within 24 hours after application. In Arizona and California the incorporation delay has been extended from 24 to 72 hours when applied to dry soils. When Trilin is applied to warm soil or if wind velocity is 10 mph or higher, variable weed control may result from delaying the first incorporation beyond 24 hours. Where two incorporation passes are required, the second incorporation may occur anytime prior to planting.

### **Bedded Culture**

Trilin needs to be incorporated into the top 2 to 3 inches of the final seedbed for effective weed control.

### **Application Prior To Bedding**

Apply Trilin prior to bedding and incorporate with recommended equipment. The bedding operation serves as the second incorporation. Avoid removal of untreated soil from the seedbed before or during the planting operation. This would expose untreated soil allowing weeds to germinate in the drill row.

### **Application After Bedding**

Knock off beds to planting height before application and incorporate Trilin with recommended equipment that will conform to the bed shape. Do not leave untreated soil exposed.

**Recommended Equipment**

Two incorporation passes are necessary unless specifically stated otherwise on this label. The second incorporation should not be deeper than the first.

**Disc:** Set disc to cut 4 to 6 inches deep and operate at 4 to 6 mph. A 4 to 6 inch cut should result in Trilin being incorporated into the top 2 to 3 inches of the soil.

**Field Cultivator:** Field cultivators are defined as implements with sweeps of 3 to 4 rows spaced at intervals of 7 inches or less staggered so that no soil is left unturned. Set to cut 3 to 4 inches deep and operate at 5 mph or more. Do not use chisel points.

**Combination Seedbed Conditioners:** Set to cut 3 to 4 inches deep and operate at a speed of at least 5 mph. These are defined as three or more tillage devices combined and used as a single tool. For example, 2 to 3 rows of field cultivator C- or S- shaped shanks with an effective sweep spacing of 6 to 9 inches (staggered so that no soil is left unturned) followed by a spike tooth or flexline harrow followed by a ground driven reel or basket.

**Rolling Cultivator:** Set to cut 2 to 4 inches deep and operate at a speed of 6 to 8 mph. Rolling cultivators are effective for use on coarse and medium textured soils. The rolling cultivator may be used on fine textured soils when used in sugarcane.

**Bed Conditioner (Do-All):** Set to cut 2 to 4 inches deep and operate at a speed of 4 to 6 mph. The Do-All is effective when used on coarse or medium textured soils only. Only one incorporation pass is necessary in bedded culture. Two passes with the Do-All are necessary in flat planted culture.

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

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

Other equipment, including the flexible tine-tooth harrow (Flexline, Melroe), is also recommended but only for the special usages for which it is specified in this label. Use other equipment only as specified herein.

**CULTIVATION AFTER PLANTING**

Soil may be shallow cultivated without reducing the weed control activity of Trilin. Poor weed control may result if cultivation is deeper than the treated soil since this may bring untreated soil to the surface.

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## **CROP RECOMMENDATIONS**

All recommendations are given as the broadcast rates of Trilin per acre. For band applications, decrease the amount of Trilin in proportion to the amount of surface treated per acre. Apply Trilin any time after January 1 when the soil can be worked and is suitable for good incorporation. For fall application see specific crop recommendations or "FALL APPLICATION" heading where specific crop recommendations are not given. Use the lower rate for coarser soils or soils with lower organic matter. For soils containing 10% or more organic matter do not use Trilin.

## **MIXING AND APPLICATION DIRECTIONS**

### **Trilin In Water**

Thoroughly clean sprayer prior to use. Fill the sprayer 1/3 to 1/2 full with clean water and start agitation. Add proper amount of Trilin providing sufficient agitation and finish filling the tank.

### **Trilin Tank Mixes in Water**

For all tank mixes, continuous agitation is required. (Sparger pipe agitators generally provide the best agitation in spray tanks). To prevent foaming, avoid stirring or splashing air into the mixture during filling by placing the end of the fill pipe below the surface of the water in the spray tank. Do not allow the mixture to siphon back into the water source.

### **Mixing Order**

Fill the tank 1/3 to 1/2 full with clean water and start agitation. Add wettable powders and dry flowables and agitate until completely dispersed. Then add aqueous suspensions (flowables): then add Trilin. Lastly, add soluble ingredients and finish filling the tank. Provide continuous agitation during filling and application. If spraying and agitation must be stopped before the tank is empty the materials may settle to the bottom. If this happens, before continuing the spray application, resuspend all of the material in the bottom of the tank. A sparge agitator is particularly useful for this purpose. It may be more difficult to resuspend the settled material than it is to suspend it originally.

Read and carefully follow all label instructions for each material added to the tank. To help assure good dispersion in the tank water, make a slurry mixture by premixing dry and flowable formulations with water and pour the slurry through a 20 or 35 mesh wet screen in the top of the tank. No finer than 50 mesh line screens in the tank should be used.

If material builds up on the walls of the spray tank, wash the tank with soapy water between fillings. Rinse and continue the spraying operation. After completion of spraying, thoroughly clean the tank lines and screens. The importance of accurate calibration and uniform application increases as the spray volume decreases. Check sprayer daily to insure proper calibration and uniform application. To insure uniform application, do not apply Trilin when the wind can cause drifting of spray particles. Poor weed control may result if Trilin is applied to soils which are wet or are subject to prolonged periods of flooding.

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**Ground Application**

Using a low pressure herbicide sprayer which will apply the spray uniformly, apply Trilin in 5 to 40 gallons of water or liquid fertilizer per acre (broadcast spray).

**Aerial Application**

For aerial spraying apply Trilin in 5 to 10 gallons of water or liquid fertilizer per acre. Pump pressure, nozzle arrangements, speed and height should be adjusted to provide a uniform application to the soil surface. To assure proper application spray widths, use swath markers or flagmen.

**Fall Application (Areas receiving more than 20" average annual rainfall)**

See specific crop for recommendations. Use the rates listed for spring applications for all crops for which there are no specific fall application instructions and for which Trilin is recommended as a preemergence application. Trilin should not be applied in the fall for sugarbeets, potatoes and direct seeded tomatoes. Apply and incorporate Trilin any time between October 15 and December 31. Leave ground flat or bedded over winter. On bedded ground, beds should be knocked down to desired height prior to planting, moving some treated soil from beds into furrows. Where soil is left over winter, care should be taken not to turn up untreated soil during spring bedding operations. During seedbed preparation destroy established weeds. Destroy weeds which have become established in furrows due to uncovering of untreated soil during bedding. Trilin should not be applied in the fall to soils which are wet, are subject to prolonged periods of flooding or where rice was grown the previous year.

**GENERAL PRECAUTIONS AND RESTRICTIONS**

**PRECAUTIONS**

Observe all precautions and limitations on the labels of each product used in tank mixes and overlays. Under normal growing conditions and if applied according to directions, Trilin will not harm the treated crop. Crop injury or soil residue may result from over application. Erratic weed control or crop injury may result from uneven application or improper soil incorporation of Trilin. Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration or drought may weaken crop seedlings and increase the possibility of damage from Trilin. Under these conditions delayed crop development or reduced yields may result.

**Plant back Restrictions**

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



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In those areas of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota and Texas where at least 20 inches of rain and/or irrigation (total) was used to produce the crop, sorghum or oats should not be planted for 12 months after an application of Trilin.

Do not plant sorghum, proso millet or oats for 18 months after an application of Trilin if less than 20 inches of total water was used to produce the crop. Cool wet weather conditions during the early stage of growth may increase the possibility of injury to sorghum.

In all other areas receiving greater than 20 inches rainfall per year, moldboard plow before planting sugar beets where a spring application of Trilin was made the previous season ~~moldboard plow~~. Also note planting restrictions listed in the section on control of rhizome johnsongrass and other high rate programs.

For vegetables other than those listed on this label, crops should not be planted within 5 months following the application of Trilin.

## FERTILIZER USE DIRECTIONS

### LIQUID FERTILIZERS

Trilin may be mixed with most liquid fertilizer materials. A combination of Trilin with solutions and suspension-type fertilizers will provide weed and grass control equal to the same rates of Trilin applied in water. Trilin label recommendations regarding rates per acre, crops, incorporation directions, special instructions and precautions should be followed. Labeling and applications relating to liquid fertilizer mixing for individual state regulations are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

### Compatibility Testing for Tank Mix Partners

A tank mixture of Trilin alone or with dry flowables, wettable powders, aqueous suspensions, flowables, liquids or solutions may not combine properly with some liquid fertilizer materials. Always test a small quantity before full-scale mixing to determine whether a compatibility agent is needed and which agent does the best job. Phosphate ester type surfactants designed for use with liquid fertilizers are suggested. Use the following test to select the correct agent for your mixture.

1. Measure one pint of intended spray water or fertilizer solution into a jar.
2. Check the pH of the liquid and adjust if necessary.
3. Add in the given order the intended ingredients shaking well after each addition.
  - (a) surfactants (spreaders), acidifiers, compatibility agents and activators; add one teaspoon for each pint/100 gallons.
  - (b) dry ingredients (wetable powders or dry flowables); add one tablespoon for each pound/100 gallons

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- (c) emulsifiable concentrates; add one teaspoon for each pint/100 gallons.
- (d) flowables: add one teaspoon for each pint/100 gallons
- (e) soluble ingredients: add one tablespoon for each pound/100 gallons.
- (f) spreader-stickers: one teaspoon for each pint/100 gallons.

4. The final mixture should be uniform and smooth with no evidence of coagulation occurring. If incompatibility is evident begin test again with a compatibility agent added first. Six drops is equivalent to four ounces per 100 gallons. If this does not smooth the mixture try higher concentrations and other compatibility agents.

5. Allow the mixture to stand undisturbed thirty minutes. If separation occurs, shake and observe the resulting mixture. If the mixture does not redisperse do not attempt to spray the mixture. You may try:

- (a) more compatibility agents
- (b) different formulations of the active ingredients (switch from wettable or emulsifiable concentrates to flowable or from wettable powder to emulsifiable concentrates).

**Mixing Instructions**

When mixing Trilin in liquid fertilizers, continuous agitation is required to prevent the Trilin from rising to the surface as an oily layer. Use a compatibility agent to make the Trilin emulsify properly. When tank mixing emulsifiable concentrates with dry flowables, wettable powders, aqueous suspensions, flowable liquids or solutions in liquid fertilizer using a compatibility agent is especially important. If Trilin rises to the surface of the fertilizer as an oil and the emulsion is not properly formed the oil may combine with the formulation or suspension to form oil curds which are difficult to redisperse. A compatibility agent is helpful in causing liquid concentrates to form non-oiling mixtures with liquid fertilizers. Compatibility agents can be used at rates as low as 1.5 to 2 pints per ton of liquid fertilizer and should be mixed well with the fertilizer before adding the liquid concentrate. Follow the directions on the compatibility agent label.

The following is a list of some phosphate ester type surfactants designed to be used with liquid fertilizers. They usually do not work as compatibility agents in tank mixtures in plain water.

- \*Amoco Spray Mate (Amoco Oil Company, Chicago, IL)
- \*Compat (Farm Chemicals Incorporated, Aberdeen, NC)
- Kem-Link (Universal Coop., Minneapolis, MN)
- Rigo Compatibility Agent (Rigo Company, Buckner, KY)
- Sponto 168D (Witco Chemicals Company, Chicago, IL)
- \*T-Mulz 734-2 (Thompson-Hayward Chemical Co.)
- Unite (Hopkins Ag Chemicals, Madison, WI)

\*Not for use in California

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**Application**

Use a properly calibrated applicator to spread the fertilizer/pesticide mixture and apply material uniformly to the soil surface.

**Incorporation**

Follow normal Trilin incorporation procedures.

**DRY BULK FERTILIZERS**

Trilin may be used for impregnation or coating of dry bulk fertilizers. Application of dry bulk fertilizers impregnated with Trilin has provided weed and grass control equal to the same rates of Trilin applied in water. Follow all Trilin label recommendations regarding rates per acre, approved crops, incorporation special instructions and precautions. A minimum of 200 pounds per acre of dry fertilizer impregnated with Trilin at the recommended rates should be applied. Trilin can be used for impregnation of any commonly used fertilizer except coated ammonium nitrate and straight limestone. Trilin will not be absorbed by these materials. Blends containing mixtures of these materials can be impregnated.

**Impregnation**

A closed drum belt ribbon or other commonly used dry bulk fertilizer blender may be used. Trilin should be applied uniformly to the fertilizer.

**Rates**

Specific crop recommendations for the rate of Trilin per acre should be followed. Check the rate table below to determine the amount of Trilin to be impregnated into a ton of dry bulk fertilizer based on the amount of fertilizer which will be applied per acre.

**Rate Chart For Impregnating Fertilizer With Trilin Added to a Ton of Fertilizer**

CHART QUANTITIES LISTED ARE QUARTS OF Trilin PER TON OF FERTILIZER

Fertilizer Rate Per Acre	Trilin Rate Per Acre				
	1 pint	1.5 pints	2 pints	3 pints	4 pints
200 lbs.	5	7.5	10	15	20
250 lbs	4	6	8	12	16
300 lbs	3.33	5	6.67	10	13.33
350 lbs.	2.75	4.25	5.75	8.5	11.5
400 lbs.	2.5	3.75	5	7.5	10
450 lbs	2.25	3.33	4.5	6.67	9

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For rates other than those listed above use the following formula to calculate the amount of Trilin to be impregnated on a ton of dry bulk fertilizer

$$\begin{array}{rclcl}
 \text{Pints} & & & & \text{Quarts} \\
 \text{Trilin} & \times & 1000 & = & \text{Trilin} \\
 \text{Per Acre} & & \text{lbs. Fertilizer} & & \text{Per} \\
 & & \text{Per Acre} & & \text{Ton of Fertilizer}
 \end{array}$$

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

**Application**

Use a properly calibrated applicator to spread the fertilizer/chemical mixture. The material should be applied uniformly to the soil surface.

**Incorporation**

Follow Trilin incorporation procedures.

**APPLICATION INSTRUCTIONS**

**ALFALFA**

**Preplant**

Trilin may be applied as a preplant incorporated treatment for preemergence control of labeled weeds in direct seeded alfalfa. Apply and incorporate prior to planting according to product label directions.

**Broadcast application Rates:**

<b>Soil Texture</b>	<b>Trilin (pt / Acre)</b>
Coarse	1.0
Medium	1.0 - 1.5*
Fine	1.5

\*Use lower range in areas receiving less than 20 inches of rainfall and irrigation.

Precautions: Some crop stand reduction and stunting may occur with use of Trilin, however, reduced weed competition will allow establishment of a quality stand.

**Mechanically Incorporated**

Use a broadcast rate of 1.5 pints per acre on coarse soils and 2 pints on medium and fine soils (in areas receiving less than 20 inches average annual rainfall). Damage to the established alfalfa may be caused if the proper incorporation equipment is not used for thorough soil mixing. Recommended soil preparation application and incorporation instructions should be followed.

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### **Chemigation or Water Incorporated**

Trilin may be surface applied for annual grass control in established alfalfa by chemigation, or ground or aerial broadcast application equipment. Refer to "Chemigation" section of this label for use directions for chemigation.

### **Surface Application Activated by Rainfall or Irrigation**

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

### **Application Timing**

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

Apply Trilin at a broadcast rate of 4 pints per acre on all soil textures by chemigation or surface applied and incorporated by rainfall or irrigation.

### **Precaution:**

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

## **ASPARAGUS**

### **Established**

Follow recommended soil preparation, application and incorporation procedures for Trilin. Trilin can be applied to established asparagus as a single or as a split application. In the winter or early spring, apply to asparagus after ferns are removed but before spear emergence or apply after harvest in the late spring or early summer before turning begins. Trilin will suppress volunteer seedling asparagus and field bindweed used at the following recommended rates and application schedules.

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**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)			
Split Application	1	1.5	2
OR			
Single Application	2	3	4

In any single calendar year, the maximum Trilin to apply is 2 pints per acre on coarse soils, 3 pints on medium soils and 4 pints on fine soils.

**BEAN  
Dry**

Apply Trilin before planting using the following rates:

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints per acre on coarse and medium soils and 2 pints on fine soils. For soils with 5-10% organic matter use 2 pints on all soils.

**Trilin with EPTAM Tank Mix**

A tank mix of Trilin and EPTAM will effectively control all the following weeds in addition to those weeds listed for Trilin.

Henbit (spring applications)	Oat Wild
Nightshade, Black	Ragweed, Common
Nightshade, Hairy	Smartweed, Pennsylvania
Nutsedge	Velvetleaf (Buttonweed)

Follow recommended soil preparation and incorporation procedures for Trilin. Apply this tank mix from 2 days prior to planting up to planting. Incorporate immediately after application.

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**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2
PLUS EPTAM 7E* (pints)	2.5-3.5	2.5-3.5	2.5 - 3.5

\*To control annual grasses use EPTAM 7E at a rate of 2.5 pints per acre. To control nutsedge and additional broadleaf weeds use 3.5 pints.

On soils with 2-5% organic matter use Trilin at 1.5 pints per acre on coarse and medium soils and 2 pints on fine soils. For soils with 5-10% organic matter use 2 pints of Trilin on all soils.

**PRECAUTION**

Observe all precautions and limitations on the labels of each product used in tank mixes and overlays. Do not use this tank mix on some black-eyed peas (beans), lima beans, soybeans, mung beans and other flatpodded beans except Romano. Do not use foliage from treated plants for feed or forage or for grazing.

**Fall application in Idaho, Oregon and Washington**

Apply and incorporate Trilin between October 15 and December 31. Use a broadcast rate of 1 pint per acre on coarse soils, 1.25 to 1.5 pints on medium soils and 1.5 pints on fine soils. Destroy established weeds during seedbed preparation.

**BEAN**

**Guar and Mungbean**

Apply and incorporate Trilin prior to planting at 1 pint per acre on coarse soils and 1.5 pints on medium and fine soils.

**BEAN**

**Snap and Lima**

Apply and incorporate Trilin prior to planting at a broadcast rate of 1 pint per acre on coarse and medium soils and 1.5 pints on fine soils.

**BEAN**

**(Lentil)**

Apply and incorporate Trilin before planting. Plant no deeper than 1.5 inches when temperature and moisture in seed bed promote fast germination and emergence.

**Broadcast Rates/Acre**

	Coarse	Medium	Fine
Trilin (pints)			
Spring Application	1.0	1.0	1.5
Fall Application	1.25	1.25	1.75

For soils with 2-5% organic matter use 1.5 pints per acre .

**PRECAUTION**

Lentil tolerance to trifluralin is marginal. Injury may occur under conditions of plant stress such as cold weather, low fertility and disease or insect damage. Spring application may increase the probability of stand reductions.

**CARROT**

Apply and incorporate Trilin prior to planting.

**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

**CASTOR BEAN**

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

**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2



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For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

### CELERY

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

#### Broadcast Rates Per Acre

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)	1	1.25-1.5	1.5 - 2.0

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

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

### CHICORY

Trilin may be applied as a preplant incorporated treatment to chicory grown either as a root crop of leafy vegetable.

Cichorium intybus, considered to be a root crop, may yield the following:

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 growth from field grown rootstalks.

Cichorium endiva, considered to be a leafy vegetable, may yield the following:

Escarole - curly green leaves from field grown plantings.

Endive - very curly green leaves from field grown plantings.

Apply Trilin as a soil incorporated treatment in spring or early summer prior to planting.

#### Broadcast Rates Per Acre

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)	1.0	1.5	2.0

For soils with 2.5% organic matter use 1.5 pints on coarse and medium soils and 2.0 pints on fine soils. On soils with 5-10% organic matter use 2.0 pint on all soil textures.

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## COLE CROPS Broccoli, Brussels Sprout, Cabbage & Cauliflower

### **Transplant**

Apply and incorporate Trilin prior to transplanting only.

### **Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

### **Direct Seeded**

Use Trilin before planting at a broadcast rate of 1 pint per acre on coarse and medium soils and 1.5 pints on fine soils and soils with 2-5% organic matter. Direct-seeded cole crops have exhibited marginal tolerance to recommended rates of Trilin.

Warning: stunting or reduced stands may occur.

## COTTON

Apply Trilin before planting, immediately after planting, or at layby.

### **Preemergence**

### **Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

Use 1.5 pints per acre on coarse and medium textured soils, 2 pints on fine soils with 2-5% organic matter and 2 pints on all soils with 5-10% organic matter.

### **Postplant**

Do not disturb the seed when incorporating Trilin postplant.

**Layby**

Trilin can be applied and incorporated any time up to layby, but not less than 90 days before harvest. Direct layby applications onto the soil between the rows and beneath emerged cotton plants at the same rates as for a preemergence application.

**Fall Application**

Trilin may be applied and incorporated any time between October 15 and December 31. The ground may be left flat or bedded-up over winter. Where soil is left flat, take care not to turn up untreated soil from beds into furrows. On bedded ground, knock down beds to desired heights before planting, moving some treated soil into the furrow from the beds. Destroy established weeds during preparation of seedbed. Before planting, destroy weeds which may have become established in furrows during the uncovering of untreated soil during bedding. Trilin should not be applied to wet soil or soils which are subject to prolonged periods of flooding.

**Application Over Standing or Shredded Cotton Stalks**

Trilin may be broadcast applied, after September 1, over the top of standing cotton stalks or after shredding using ground or aerial equipment. Trilin must be incorporated once within 24 hours after application using a disc operated at 4 to 6 mph. The second incorporation may be delayed until spring prior to bedding. To avoid dilution of the herbicide or bringing untreated soil to the surface, the treatment should not be chiseled, ripped or deep plowed following incorporation.

**Broadcast Rates Per Acre - Fall Application Only**

In Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri bootheel, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee, and Texas, apply and incorporate Trilin at a broadcast rate of 2 pints per acre on all soil types.

In Arizona, California and Nevada, a broadcast rate of 1.5 pints per acre should be used on coarse soil, and 2 pints on medium and fine soil.

For other states where cotton may be grown, apply Trilin at a broadcast rate of 1 pint per acre on coarse soils, 1.5 pints on medium soils and 2 pints on fine soils. For coarse soils with 2-5% organic matter use 1.5 pints. For soils with 5-10% organic matter use 2 pints.

**Incorporation of Trilin With Bedding Implements for Weed Control in Cotton.**

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

**Soil Preparation**

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

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**General Soil Conditions**

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

**Use Directions for Bedding Equipment**

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

If Trilin treated soil is moved, exposing untreated soil, during bed tillage or planting, a band application of Trilin at planting or a postemergence application maybe required to restore uniform weed control.

**Precaution**

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

**Trilin for Weed Control in Conservation Tillage Cotton**

Trilin may be applied and incorporated before planting, after planting prior to crop emergence, or at layby for weed control in conservation tillage cotton. Single or multiple application may be made so long as maximum application rates are not exceeded and rotational crop restrictions are followed.

**Strip Planting into Small Grain Cover Crops**

Fall planted cover crops may be utilized to control wind erosion and protect developing crop seedlings from wind damage. Prior to planting cotton, the cover crop may be treated with a contact herbicide to prevent continued growth and development and prevent competition with crop seedlings for water and soil nutrients. The standing cover crop (now dead) continues to control wind erosion and provide protection to the developing crop until it is well established.

In strip planting, cotton is seeded into competition free bands established in the cover crop. Competition-free bands may be established by leaving unseeded drill rows when seeding the cover crop, or by tillage or use of a contact herbicide to prepare competition-free bands prior to planting.

**Application Before or After Planting (Within Competition-Free Bands)**

Apply Trilin using low pressure ground equipment as a band (within the weed free zone) or as a

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broadcast treatment. Application and incorporation may occur before planting or after planting prior to crop emergence. If applied after planting, set incorporation equipment so as to not disturb the planted seed.

### **Incorporation**

Equipment should be adapted to the width of the competition-free band. Use equipment that will uniformly mix Trilin into the weed germination zone. Weed control resulting from single pass incorporation or with incorporation equipment that does not result in thorough mixing of Trilin treated soil may be reduced compared to conventional double pass incorporation. Implements used to incorporate Trilin after planting should be operated so that they do not disturb the planted seed or growing crop.

### **Broadcast Rates Per Acre**

Use 1.0 - 2.0 pints per acre on all soils. Use the lower rate in the rate range when additional sequential applications of Trilin are anticipated. Use the higher rate in the rate range where high crop residues are present, and where dense weed populations are anticipated.

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

### **Layby Applications**

Layby applications may be made in established cotton from the 4 true leaf stage of growth up to layby, but not less than 90 days before harvest. Apply Trilin uniformly to the soil surface using drop nozzles if necessary. Apply at a broadcast rate of 1.0 pint per acre for coarse, 1.5 pints per acre for medium and 2.0 pints per acre for fine textured soils. 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. Cumulative layby application rate may not exceed the layby application rate given for each soil texture.

### **Chemigation**

Trilin may be applied through properly equipped chemigation systems for weed control in conservation tillage cotton. Apply the recommended rate of Trilin in 0.5 - 1.0 acre in of sprinkler irrigation. Apply Trilin before planting or after planting, but prior to weed or crop germination. Trilin does not control established weeds. Soil incorporation is not required when applied by chemigation. Soil treated with Trilin may be shallow-cultivated without reducing weed control activity. See "Chemigation" section for detailed use directions. Apply at a broadcast rate of 1.0-2.0 pints per acre for all soils. Use the lower rate in the rate range when additional sequential applications of Trilin are anticipated. Use the higher rate in the rate range when high crop residue levels are present, where dense weed populations are anticipated, or where no additional sequential applications of Trilin are to be made (See Sequential Applications section).

### **Sequential Applications**

Trilin may be applied one or more times sequentially during the growing season using the rates and

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methods of application described for full season weed control. The maximum dosage that can be used for a single application cannot exceed the rates shown for each application method. The maximum cumulative application rate that may be applied within the same growing season cannot exceed 4 pints per acre.

### **Crop Rotation**

See the Plantback Restrictions section for specific rotational crop restrictions. When the cumulative application rate exceeds the application rate of 1.5 pints per acre for coarse, 1.5 pints per acre for medium and 2.0 pints per acre for fine textured soils, plant only those crops for which Trilin can be applied as a preplant incorporated treatment in the season following the Trilin application or crop injury may result.

Small grain cover crops that will not be grazed or harvested and are intended for prevention of wind erosion in conservation tillage cotton may be planted in the fall following spring applications of up to 2 pints per acre of Trilin. Injury in the form of reduced stands or delayed emergence and development may result when small grains are planted under these conditions.

## **SPECIAL USE DIRECTIONS FOR COTTON**

### **Fall Panicum**

Apply and incorporate Trilin broadcast at the rate of 2 pints per acre on coarse and medium soils.

### **Texas Panicum**

Apply and incorporate at the labeled use rate for the soil type. Uniformly incorporate to a depth of at least 3 inches. Adequate soil moisture is essential for herbicide activation. Any deviation from these recommendations can result in reduced control.

### **Rhizome Johnsongrass**

Rhizome Johnsongrass can be controlled in all Cotton Producing states except Arizona by applying in accordance with the following directions for two consecutive years.

### **Soil Preparation**

For satisfactory results proper soil preparation is essential. To bring rhizomes to the top of the soil use a chisel plow or similar implement. Follow with a disc twice before application to cut rhizomes into small 2 to 3 inch pieces. Any emerged johnsongrass should be destroyed.

### **Application**

Choose one of the following programs which best meets your cultural practices:

For spring application apply Trilin prior to planting in the spring for 2 consecutive years. A broadcast rate of 2 pints per acre should be used on all soils.

OR

For fall application use Trilin between October 15 and December 31 for 2 consecutive years at the same rates as a spring application.

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**Incorporation**

For good rhizome johnsongrass control deep incorporation is necessary. Incorporate Trilin thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary with the second pass in a different direction from the first.

**Cultivation**

To remove johnsongrass plants which have escaped control, timely cultivations during the crop season are necessary to obtain effective control. Effective control cannot be obtained with only 1 year of ~~double rate~~ Trilin use.

**Crop Rotation**

Plant only rice and those crops for which Trilin can be applied as a preplant treatment in the season following application using methods for control of rhizome johnsongrass described above or injury may result.

**Pigweed and Seedling Johnsongrass Control**

In Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, North Carolina, South Carolina, Tennessee and southern Virginia, apply Trilin preplant at a broadcast rate of 1 to 1.5 pints per acre on coarse soils, 1.5 to 2 pints on medium soils and 2 pints on fine soils.

**Additional Weed and Grass Control**

In the Texas Gulf Coast counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, apply Trilin at a broadcast rate of 1.5 pints per acre on coarse soils, 2 pints on medium and fine soils two weeks prior to planting.

**PRECAUTION**

When using higher usage rates, plant cotton after early season adverse weather conditions to avoid additional stress to the cotton plants due to cool, wet weather early in the growth cycle, which could cause reduced stands, delayed maturity and reduced yields.

**TANK MIXES AND OVERLAYS**

Observe all precautions and limitations on the label of each product used in tank mixes and overlays.

**Trilin with Cotton Pro - Arizona, New Mexico and West Texas**

**Trilin with CAPAROL 4L - Arizona, New Mexico and the upper and lower El Paso Valley, Texas**

Trilin with Cotton Pro or CAPAROL 4L will control certain grasses and broadleaf weeds listed for Trilin alone plus the following weeds.

- |                       |                        |
|-----------------------|------------------------|
| Annual Morningglory   | Prickly Sida (Teaweed) |
| Groundcherry (Annual) | Ragweed                |
| Malva                 | Smartweed              |
| Mustard               | Wild Oat               |

Shallow germinating seedlings of cocklebur and coffeeweed will also be controlled.

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints) PLUS	1	1.25 - 1.5	2
Cotton Pro (pints) OR	3.125	4	4
CAPAROL 4L (pints)	2.4-3.2*	4	4

Do not use on sands and loamy sands. Use proportionally less for band application. \*Use less than 3.2 pints per acre only in Arizona

**Mixing Directions**

Add Cotton Pro or CAPAROL 4L to a partially filled tank of water. Add Trilin and fill tank. During the filling and spraying operation, agitate continuously. If bypass agitation is used, minimize foaming by hanging the bypass line stop at the bottom of the tank. Avoid leaving the spray mixture in the tank without constant agitation.

**Crop Rotations**

After a spring application of Trilin plus Cotton Pro or CAPAROL 4L, cabbage, okra, onions and peas may be planted in the fall. Winter barley, winter rye and winter wheat, if plowed down and not used for food or feed, can be planted in the fall also. Refer to the Cotton Pro or CAPAROL 4L label for directions and precautions.

**PRECAUTION**

Do not use a Trilin with Cotton Pro or CAPAROL 4L tank mix in the cut areas of newly leveled fields, in areas of excess salt, or where flooding over the beds is likely to happen. Do not plant cotton in tractor wheel depressions. These conditions may cause crop injury. On mulch planted cotton, water back only after cotton seedlings are well-established. Do not feed foliage from treated plants to livestock or graze treated areas.

**Trilin with Meturon 4L, Meturon 80DE, COTORAN 4L or COTORAN DF (except in Arizona)**

Follow recommended soil preparation and incorporation procedures for Trilin. A tank mix of Trilin with Meturon 4L, Meturon 80DF, COTORAN 4L or COTORAN DF effectively controls all the annual grasses and broadleaf weeds listed for Trilin alone plus these additional weeds:

- |                        |            |
|------------------------|------------|
| Buttonweed             | Ragweed    |
| Cocklebur              | Ryegrass   |
| Groundcherry, Wright   | Sesbania   |
| Jimsonweed             | Sicklepod  |
| Morningglory           | Smartweed  |
| Prickly Sida (Teaweed) | Tumbleweed |



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**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)	1	1.5	2
PLUS			
Meturon 4L (pints)	2	3.125	4
OR			
Meturon 80DF (pounds)	1.25	1.9	2.5
OR			
Cotoran 4L (pints)	2	3.125	4
OR			
Cotoran DF (pounds)	1.2	2	2.4

**Mixing Directions**

Add Meturon or COTORAN to a partially filled tank of water. Add the Trilin after Meturon or COTORAN is thoroughly mixed and continue filling. Agitate continuously throughout the filling and application operations. Do not leave spray mixture in tank without constant agitation. If bypass agitation is used minimize foaming by hanging the bypass line stop at the bottom of the tank. Apply in 15 to 40 gallons of water per acre.

**West Texas Only**

Do not use tank mix of Trilin plus Meturon or COTORAN on sandy, loamy sand or fine sandy loam soils. Do not use on cotton planted in furrows.

**Arkansas, Louisiana and Mississippi Only**

On sandy loam soils low in organic matter use 1.5 pints Meturon 4L or Cotoran 4L or 1 pound Meturon 80DF or COTORAN DF in tank mix with Trilin.

**New Mexico**

Do not plant treated land with crops other than cotton until 1 year after the last application. Do not use on sandy or coarse textured soils of less than 1% organic matter.

**PRECAUTION**

Crop injury may result if treated land is planted to anything but cotton within six months of the application of Trilin plus Meturon or COTORAN. Do not feed foliage from treated cotton plants or gin trash to livestock. Do not mix Trilin plus Meturon or COTORAN with liquid fertilizer.

**Trilin preplant followed by Meturon 4L, Meturon 80DF, COTORAN 4L or COTORAN DF Overlay**

Apply and incorporate Trilin as recommended for the specific soil texture. Apply Meturon 4L or Cotoran 4L at 2 to 4 pints per acre or Meturon 80DF or COTORAN DF at 1.2 to 2.4 pounds per acre as a preemergence surface treatment. Use the lower rate on light silt and sandy soil low in organic matter.

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**PRECAUTION**

Observe all precautions and limitations on the labels of each product used in tank mixes and overlays.

**Trilin preplant followed by DIREX 4L or KARMEX DF Overlay (East of the Mississippi River plus Arkansas, southeastern Missouri, Louisiana and Eastern Texas)**

Incorporate Trilin prior to planting. Follow with a preemergence application of DIREX 4L or KARMEX DF. This will effectively control all the weeds controlled by Trilin alone plus these additional weeds.

- |                      |                |
|----------------------|----------------|
| Annual Ground Cherry | Ragweed        |
| Annual Morning Glory | Shepherdspurse |
| Dogfennel            | Velvetgrass    |
| Pennycress           | Wild Lettuce   |
| Wild Mustard         |                |

**Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)	1	1.5	2
PLUS			
DIREX 4L (pints)	0.5	1	1.75
OR			
KARMEX DF (pounds)	0.33	0.67	1

**PRECAUTION**

Observe all precautions and limitations on the label of each product used in tank mixes and overlays. DIREX 4L or KARMEX DF should not be used on soils with less than 1% organic matter as crop injury may result. Do not feed foliage from treated plants to livestock or graze treated areas.

**COTTON: USE RESTRICTION**

Do not apply within 90 days of harvest. Do not apply more than 2.0 lbs a.i. / A (2 pints Trilin / A) per application and do not apply more than 2.0 lbs a.i. / A per crop year (either fall application through lay-by application or preplant plus post plant through lay-by)

**TREES GROWN FOR PULPWOOD  
ASPEN, COTTONWOOD and POPLAR**

**New Plantings:**

Apply and incorporate Trilin before planting.

**Broadcast Rates/Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)	1.0	1.25-1.5	1.5-2.0

For soils with 2-5% organic matter use 1.5-2.0 pints. On soils with 5-10% organic matter use 2.0 pints. Use lower rate in areas receiving less than 20 inches total rainfall and irrigation.

**Established Plantings:**

Apply as a directed spray to the soil and use incorporation methods not injurious to the crop.

**Broadcast Rates/Acre**

**All Soil Textures**

Trilin (pints)                      2.0-4.0 pints

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

**Johnsongrass Suppression:**

Proper soil preparation before application is necessary for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the soil surface. Then work the soil twice using a tandem disc to cut rhizomes into small (2 to 3 inch) pieces and to destroy emerging Johnsongrass.

**Broadcast Rates/Acre**

**All Soils**

Trilin (pints)                      4.0

**Incorporation:** Incorporate twice with a tandem disc set to cut 4 to 6 inches deep and operated at 4 to 6 mph.

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

**CUCURBITS**

**Cantaloupe, Cucumber and Watermelon**

**Postplant Emerged in Western United States including Texas**

Apply Trilin as a directed spray to the soil between the rows and beneath plants which are in the 3 to 4 true leaf stage.

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**Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

**FIELD CORN, GRAIN SORGHUM AND CORN FODDER, FORAGE AND SILAGE**

Apply Trilin to field corn or grain sorghum (8 inches or taller) as an over-the-top or directed spray to effectively control weeds listed for Trilin. Trilin applied as an over-the-top spray or as a directed spray in field corn and grain sorghum will control shattercane in addition to those other weeds listed on the label for Trilin.

**Soil Preparation**

Cultivate before a Trilin application to insure loose, friable soil, to remove established weeds and to cover the base of plants with soil.

**Application Directions**

Trilin should be applied and incorporated at the recommended rates for the soil texture when the crop is well established (8 inches or taller). Trilin may be applied either as an over-the-top spray or as a directed spray. Drop nozzles should be used if foliage prevents uniform coverage of soil surface. Soil incorporation may be accomplished with only one pass of a sweep-type cultivator or a properly adjusted rolling cultivator. The sweep-type cultivator should have 3 to 5 sweeps per row middle and be operated at 6 to 8 mph. Set the middle sweeps so as to avoid exposing untreated soil. Adjust the incorporation tools to prevent crop injury.

**Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)	0.75-1	1-1.5	1.5-2

**Corn Only**

Apply 1 to 1.5 pints per acre in Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia to control fall panicum and Texas panicum.

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**Trilin with Atrazine Tank Mix**

Trilin can be tank mixed with atrazine for additional weed control in field corn and grain sorghum.

**Broadcast Rates Per Acre**

	<b><u>Coarse*</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints) PLUS	0.75-1	1-1.5	1.5-2
AAtrex 4L (pints)	2.4	4.75	6

When using AAtrex 4L use the rates listed above. For other atrazine formulations, use equivalent rates. When using AAtrex NineO 1 pint of 4L = 0.55 pound of NineO. One pint of 4L equals 0.62 pounds of Atrazine 80W.

\*Do not use the above tank mix on coarse soils for grain sorghum.

Apply and incorporate the Trilin/atrazine tank mix as directed on the Trilin label for field corn and grain sorghum.

**PRECAUTION**

Do not apply Trilin to sweet corn or corn grown for seed. Do not apply to corn or sorghum as a preplant or preemergence treatment or crop injury may occur. Observe all precautions and limitations on the labels of each product used in tank mixes and overlays.

**FLAX**

**Fall Application**

Trilin may be applied and incorporated in the fall for weed control in spring seeded flax. Ground cover from existing weeds or previous crop should be at a manageable level so that there is no interference with incorporation.

Apply at the broadcast rates per acre of 1 pint on coarse soil, 1.5 pints on medium soil and 2 pints for fine soils.

**Incorporation Directions**

Incorporate one time within 24 hours after application. The second incorporation should be performed in the spring prior to seeding flax. The incorporation operations should result in a thorough mixing of Trilin with soil. Otherwise, erratic weed control may result.

**Incorporation Equipment**

Follow recommended soil incorporation procedures for Trilin. Incorporation operations or any other tillages performed in the spring prior to seeding should be relatively shallow so as to maintain a firm seedbed, and the seedbed should be packaged just prior to seeding. Seeding should be done

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with a press drill or hoe drill. Seed into a moist seedbed no more than 1.5 inches deep. Do not delay the first incorporation more than 24 hours after application.

## FRUIT AND NUT CROPS AND VINEYARDS

### For areas receiving more than 20" average annual rainfall

On new plantings of citrus, pecan trees and vineyards apply and incorporate Trilin prior to planting at a broadcast rate of 1 pint per acre on coarse soils, 1.5 pints on medium soils and 2 pints on fine soils. On soils with 2-5% organic matter use 1.5 pints on fine soils and on soils with 5-10% organic matter use 2 pints. Use Trilin at a broadcast rate of 2 to 4 pints per acre for all soil textures for non-bearing established plantings of citrus and pecan trees and bearing plantings of grapefruit, lemon, orange, pecan, tangelo, and tangerine trees.

### For areas receiving less than 20" average annual rainfall

On new plantings of almond, apricot, citrus, nectarine, peach, pecan, and walnut trees apply and incorporate Trilin prior to planting at a broadcast rate of 1 pint per acre on coarse soils, 1.25 to 1.5 pints on medium soils, 1.5 pints on fine soils, on soils with 2-5% organic matter use 1.5 to 2 pints and 2 pints on soils with 5-10% organic matter.

### New Plantings of Vineyards

Apply and incorporate Trilin prior to planting at a broadcast rate of 1 to 1.5 pints per acre on coarse soils, 1.5 to 3 pints on medium soils and 3 to 4 pints on fine soils or soils with 2-10% organic matter. Do not use more than 2 pints per acre on heat-treated grape rootings.

### Postplant Application

For postplant applications on bearing or non-bearing established plantings of vineyards and almond, apricot, grapefruit, lemon, nectarine, orange, peach, plum, prune, tangelo, tangerine and walnut trees. Use Trilin at a broadcast rate of 2 to 4 pints per acre for all soil textures. Do not apply to vineyards within 60 days of harvest. In established plantings, use Trilin as a directed spray to the soil. Use incorporation methods not injurious to the trees or vines.

### Rhizome Johnsongrass control

For areas receiving less than 20" average annual rainfall. Control rhizome johnsongrass with postplant applications in bearing and non-bearing established plantings of vineyards and almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine, and walnut trees by applying Trilin for 2 consecutive years.

### Soil Preparation

Soil should be worked thoroughly to bring the rhizomes near the surface.

### Application

Use Trilin at a broadcast rate of 2 quarts per acre on all soil textures each year for 2 consecutive years. Do not apply to vineyards within 60 days of harvest.

**Incorporation**

Incorporate Trilin thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary using a different direction for the second.

**Cultivation**

As some johnsongrass plants will escape, cultivation is necessary to obtain effective control. Effective control cannot be obtained with only 1 year of Trilin use.

**PRECAUTION**

Crop injury may result if the 2 quart rate is used on new plantings. Orchard or vineyards should not be interplanted with other crops. If the treated vineyards and orchards are diverted to other crop uses, plant only those crops for which Trilin has been registered as a preplant treatment for the next cropping season.

**Bindweed control In California**

Use Trilin for the control of field bindweed in vineyards and for almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine and walnut trees.

Use Trilin at a broadcast rate of 4 pints per acre on all soil textures. Trilin must be applied in the spring with a specially designed spray blade which applies a thin concentrated layer at a soil depth of 4 to 6 inches. This layer of Trilin prevents bindweed shoots from emerging.

**Land Preparation**

All weeds and grasses should be destroyed with soil tillage prior to applying Trilin. This tillage is necessary to prevent trash from interfering with the operation of the spray blade.

**Equipment**

A spray blade capable of running 4 to 6 inches below the surface of the soil should be used. The spray blade should be equipped with nozzles located under the blade and directed so that the Trilin spray will be trapped under the soil which is flowing over the blade as it is pulled through the soil. A sufficient number of nozzles should be used with spacing that will uniformly apply the Trilin underground in a thin horizontal layer.

**Application**

Use Trilin in 40 to 80 gallons of water per acre. Operate the spray blade at a depth of 4 to 6 inches.

**PRECAUTION**

After rainfall or irrigation some soils may crack as they dry. Bindweed may emerge if the cracks extend through the Trilin layer. Prevent or eliminate cracks by shallow discing or other tillage. Avoid deep tillage which disturbs the subsurface layer. Cultivation or tillage also aids the control of germinating seeds.

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## IRRIGATION WATER RINGS NON-BEARING CITRUS TREES

Apply to non-bearing citrus trees through irrigation water rings to provide preemergence weed control. Mix at a rate of 12 fluid ounces of Trilin per 500 gallons of water. Agitate until uniformly dispersed in tank.

Apply 10 gallons of the mixture per four foot diameter water ring per tree. Trilin should be applied at the second or third watering and should not be applied in combination with any other pesticide.

## GREENS

**Turnip greens grown for processing,  
Collards, Kale and Mustard Greens**

Apply and incorporate Trilin prior to planting at 1 pint per acre on coarse soils and 1.5 pints on medium and fine soils.

## HOPS

Apply and incorporate Trilin while the crop is dormant using a broadcast rate of 1 pint per acre on coarse soils, 1.25 pints on medium soils and 1.5 pints on fine soils. Use incorporation equipment that will insure thorough soil mixing with minimum damage to the crop.

## KENAF

### Ground Application

Using a low pressure herbicide sprayer which will apply the spray uniformly, apply Trilin in 5 to 40 gallons of water (broadcast spray).

### Aerial Application

For aerial spraying apply Trilin in 5 to 10 gallons of water. Pump pressure, nozzle arrangements, speed and height should be adjusted to provide a uniform application to the soil surface. To assure proper application spray widths use swath markers or flagmen.

### **Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)	0.75-1	1-1.5	1.5-2



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**Incorporation Directions**

**General Directions**

Erratic weed control and/or crop injury may result if directions are not followed. The soil surface should be free of existing weeds and excessive trash or clods.

**Before Planting**

Incorporation of Trilin must take place within 24 hours after application and may be accomplished in one pass with a sweep type or a rolling cultivator. Follow recommended soil incorporation procedures for Trilin.

**PRECAUTION**

Without reducing the weed control activity of Trilin, soil treated with Trilin may be shallow cultivated, rotary hoed, or handhoed. Do not cultivate deeper than 1 to 2 inches in the Trilin treated layer of soil as this may bring untreated soil to the surface and poor weed control may result. Kenaf treated with Trilin must not be used as a food, forage or feed.

**LUPINE**

Apply and incorporate before planting

	<b>Broadcast Rates/Acre</b>		
	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1.0	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1.0	1.5	2.0

For soils with 2-5% organic matter use 1.5 pints/acre on coarse and medium soils and 2.0 pints on fine soils. On soils with 5-10% organic matter use 2 pints.

**MUSTARD**

Grown for seed or processing for food in Minnesota, Montana and North Dakota. Apply and incorporate Trilin prior to planting at 1 pint per acre on coarse soils and 1.5 pints on medium and fine soils.

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## NUT CROPS

See FRUIT AND NUT CROPS AND VINEYARDS for Instructions.

### OKRA

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

#### Broadcast Rates Per Acre

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

### PEA

#### Dry and English

#### Trilin Alone

Apply and incorporate Trilin prior to planting at a rate of 1 pint per acre on coarse and medium soils and 1.5 pints on fine soils.

#### Fall application in Idaho, Oregon and Washington

Apply and incorporate Trilin any time between October 15 and December 31 using a broadcast rate of 1 pint per acre on coarse soils, 1.25 to 1.5 pints on medium soils and 1.5 pints on fine soils. Destroy established weeds during seedbed preparation. Do not apply Trilin in the fall to soils which are wet or are subject to prolonged periods of flooding.

#### Trilin with FAR-GO tank mix in Idaho Oregon and Washington

Trilin plus FAR-GO controls wild oat in addition to other annual grasses and broadleaf weeds controlled by Trilin.

#### Application Rates

Broadcast 0.75 pint of Trilin per acre on coarse and medium soils, 1 pint on fine soils. Use 1.25 quarts of FAR-GO per acre for all soil textures.

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**Incorporation Directions**

Apply and incorporate up to 3 weeks prior to planting. Follow recommended incorporation procedures for Trilin.

**PRECAUTION**

Do not apply to lentils. Leaf crinkling and delayed maturity of peas may occur particularly on clay points in the northwest; but this is usually more than offset by a reduction of wild oat. Do not use foliage from treated plants for feed or grazing. Observe all precautions and limitations on the label of each product used in tank mixes and overlays.

**PEANUT**

**Spanish Peanut, Florunner and Florigiant in New Mexico, Oklahoma and Texas**

Apply and incorporate Trilin prior to planting, at planting or immediately after planting using a broadcast rate of 1 pint per acre on coarse soils and 1.5 pints on medium soils. When incorporating after planting take care not to disturb the seed.

**PEPPER**

**Transplant**

Apply and incorporate Trilin prior to transplanting only.

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

**POTATO**

**All states except Maine**

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

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**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium soils and 2 pints on soils with 5-10% organic matter.

Incorporation equipment should be set to uniformly cover the bed and furrow with a layer of treated soil. If the herbicide is concentrated over the bed, potato emergence may be retarded and stem brittleness can occur. Do not completely cover the foliage with treated soil when Trilin is applied and incorporated after potato plants have fully emerged. Do not completely cover foliage at subsequent cultivations. Be careful that incorporation machinery does not damage potato seed pieces or elongating sprouts.

**Split Application in Idaho, Oregon and Washington**

Apply and incorporate 0.75 pint of Trilin per acre before planting and 0.75 pint after planting when potato plants have fully emerged from all soils except do not apply to soils containing 2% or more organic matter. Follow incorporation directions listed above for application to potato after planting.

**Trilin with EPTAM tank mix in Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas**

This tank mix will effectively control the following weeds in addition to those weeds controlled by Trilin.

Henbit (spring applications)	Oat, Wild
Nightshade Black	Ragweed Common
Nightshade Harry	Smartweed Pennsylvania
Nutsedge	Velvetleaf Buttonweed

Follow the recommendations for soil preparation and incorporation procedures for Trilin. The Trilin with EPTAM tank mix may be applied after planting but before crop emergence. In areas where potatoes are normally dragged off this tank mix should be applied and incorporated up to or immediately following drag off.

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**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1-1.5	1-1.5
Areas receiving greater than 20' average annual rainfall PLUS	1	1-1.5	1-2
Eptam 7E	1.75-7**	1.75-7	1.75-7

\*\*For nutsedge control use the higher rate of EPTAM 7E.

On soils with 2-5% organic matter use 1.5 pints per acre on coarse and medium soils and on soil with 5-10% organic matter use 2 pints on all soils.

**PRECAUTION**

Follow directions and precautions on the EPTAM label before using. Observe all precautions and limitations on the labels of each product used in tank mixes and overlays. Do not use foliage from treated plants for feed or forage or for grazing.

**Trilin with EPTAM application before planting in Idaho, Oregon and Washington**

Trilin with EPTAM may be applied prior to planting using a broadcast rate of 0.75 pint of Trilin per acre and 3.5 pints of EPTAM 7E per acre on all soil textures. Incorporate immediately.

**PRECAUTION**

Do not use this tank mix both before and after planting in the *same* season. Observe all precautions and limitations on the labels of each product used in tank mixes and overlays. Do not use foliage from treated plants for feed on forage or for grazing.

**RADISH**

Apply and incorporate as a preplant soil treatment.

**Broadcast Rates/Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>
Trilin (pints)	1.0	1.5	1.5

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## **RAPESEED (Canola), CRAMBE**

**(Except in Alaska)**

Follow recommended procedures for soil preparation and application of Trilin. Trilin may be applied in the fall or early spring prior to seeding. Set incorporation equipment to incorporate to a depth of 3-4 inches with equipment specified in this label.

### **Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)	1	1.5	2

## **SAFFLOWER**

Recommended soil preparation application and incorporation procedures for Trilin should be followed. Use Trilin before planting in the spring or between October 15 and December 31.

### **Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

On coarse and medium soils use 1.5 pints per acre and 2 pints on fine soils with 2-5% organic matter. Use 2 to 2.5 pints on all soils with 5-10% organic matter.

### **For Fall Application in Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming**

Apply and incorporate Trilin any time between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground, beds should be knocked down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, care should be taken during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. Before planting, destroy weeds that become established in furrows due to uncovering of untreated soil. Apply and incorporate Trilin at a broadcast rate of 1.5 pints per acre on coarse soils, 2 pints on medium and 2.5 pints on fine soils. Trilin should not be applied in the fall to soils which are wet or are subject to prolonged periods of flooding.

## **SOUTHERN PEA**

Apply and incorporate Trilin prior to planting only.

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

For soils with 2-5% organic matter use 1.5 pints on coarse and medium and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints on all soils.

**SOYBEANS**

**Preemergence**

Follow recommended soil preparation, application, and incorporation procedures for Trilin.

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)	1	1.5	2

Use 1.5 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 2-5% organic matter, use 2 to 2.5 pints on all soils with 5-10% organic matter.

**Fall Application**

Trilin may be applied and incorporated any time between October 15 and December 31. The ground may be left flat or bedded-up over winter. Where soil is left flat, care should be taken not to turn up untreated soil from beds into furrows. On bedded grounds, beds should be knocked down to desired heights before planting, moving some treated soil into the furrow from the beds. Established weeds should be destroyed during preparation of seedbed. Before planting, destroy weeds which may have become established in furrows due to the uncovering of untreated soil during bedding. Trilin should not be applied to wet soil or soils which are subject to prolonged periods of flooding of ground where rice was grown the previous year.

Apply and incorporate Trilin at a broadcast rate of 2 pints per acre on coarse and medium soils and 2.5 pints on fine soils in Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri bootheel, North Carolina, Oklahoma, South Carolina, Tennessee and Texas. For other states where soybeans may be grown, use Trilin at a broadcast rate of 1 pint per acre on coarse soils, 1.5 pints on medium soils and 2 pints on fine soils. For coarse soils with 2-5% organic matter use 1.5 pints. For soils with 5-10% organic matter use 2 to 2.5 pints.

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**SPECIAL USE DIRECTIONS FOR SOYBEANS**

**Fall Panicum**

Apply and incorporate Trilin broadcast at the rate of 2 pints per acre on coarse and medium soils.

**Crop Rotation**

Plant only rice and those crops for which Trilin can be applied as a preplant treatment following a double rate treatment season or injury may result.

**Texas Panicum**

Apply and incorporate at the labeled use rate for the soil type. Uniformly incorporate to a depth of at least 3 inches. Adequate soil moisture is essential for herbicide activation. Any deviation from these recommendations can result in reduced control.

**Pigweed and Seedling Johnsongrass Control**

In Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, North Carolina, Oklahoma, South Carolina, Tennessee and southern Virginia, apply Trilin preplant at a broadcast rate of 1 to 1.5 pints per acre on coarse soils, 1.5 to 2 pints on medium soils and 2 pints on fine soils. Exception: Use 3 pints per acre on fine soils in Louisiana.

**Additional Weed and Grass Control**

In the Texas Gulf Coast counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, apply Trilin at a broadcast rate of 1.5 pints per acre on coarse soils, 2 pints on medium soils and 3 pints on fine soils, up to two weeks before planting.

**Charcoal Soils in Arkansas, Louisiana and Mississippi**

Freshly cleared land sometimes contains 5-10% organic matter and charcoal from burning debris. This charcoal and organic matter has a tendency to bind Trilin and reduce its weed control activity. If these conditions exist, higher rates of Trilin are needed for weed control. Crop injury can occur if increased rates are used and the charcoal or organic matter is not present in the soil. In the burn row a high level of charcoal is present, consequently, poor weed control may result even with an increased rate of Trilin.

Use Trilin broadcast at the rate of 1.5 to 2.5 pints per acre on coarse soils, 2.5 pints on medium soils and 3 pints on fine soils. Follow recommended soil preparation, application and incorporation procedures for Trilin.

**Red Rice in Arkansas, Louisiana, Mississippi and Texas only**

Partial suppression or control of red rice can be obtained when Trilin is applied at the following recommended rates.



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### Broadcast Rates Per Acre

<b>Application</b>	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>	<b>Coarse with 2-5% organic matter</b>	<b>Coarse with 5-10% organic matter</b>
Year 1	2	3	4	3	4
Year 2	1	1.5	2	1.5	2-2.5

If high organic matter and/or charcoal are present in the soil use Trilin the second year as follows for Arkansas, Louisiana, and Mississippi:

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)	1	1.5-2.5	2.5-3

### Crop Rotation

Use a two year program for red rice control in soybeans. Use rates listed for 1 year and plant soybeans. The second year plant only those plants which Trilin can be used preplant using the normal rates listed for your soil type and charcoal level. Do not plant rice the second year. Rice may be planted the third year.

### Rhizome Johnsongrass in Eastern United States and Texas

Rhizome Johnsongrass can be acceptably controlled using a double rate program for two consecutive years as follows:

### Soil Preparation

For satisfactory results proper soil preparation is essential. To bring rhizomes to the top of the soil use a chisel plow or similar implement. Follow twice with a disc prior to application to cut rhizomes into small 2 to 3 inch pieces and to destroy any emerged Johnsongrass.

### Application

Choose one of the following programs which best meets your cultural practices.

For spring application use Trilin prior to planting in the spring for two consecutive years. A broadcast rate of 2 pints per acre should be used on coarse soils, 3 pints on medium soils and 4 pints on fine soils. Use 3 pints on coarse soils with 2-5% organic matter and 4 pints on soils with 5-10% organic matter.

OR

For fall application use Trilin between October 15 and December 31 for two consecutive years using the same rates as for spring application.

OR

A split application of Trilin may be used in spring and fall for two consecutive years using the following rates.

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**Broadcast Rates Per Acre**

	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>	<u>Coarse with 2-5% organic matter</u>	<u>Coarse with 5-10% organic matter</u>
Trilin (pints)					
Spring & Fall	1	1	2	1.5	2

**Incorporation**

For good rhizome johnsongrass control deep incorporation is necessary. Incorporate Trilin thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary with the second pass in a different direction from the first.

**Cultivation**

To control Johnsongrass plants which have escaped Trilin timely cultivations during the crop season may be necessary to obtain control. Control cannot be obtained with only 1 year of double rate Trilin use.

**Crop Rotation**

Plant only rice and those crops for which Trilin can be applied as a preplant treatment following a double rate treatment season or injury may result.

**Wild Cane (Shattercane)**

Follow recommended soil preparation and application procedures for Trilin.

Germination of wild cane (shattercane) occurs throughout the growing season and from deeper in the soil than most other weed seeds. Effective control can be obtained by using the following increased rates of Trilin.

A broadcast rate of 1 pint per acre on coarse soils, 2 pints on medium soils and 2.5 pints on fine soils.

**Incorporation**

For good wild cane control deep incorporation is necessary. Incorporate Trilin thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary with the second pass in a different direction from the first.

**Cultivation**

Cultivation during the crop season will also contribute to control.

**PRECAUTION**

When using higher rates, soybeans should be planted after early season adverse weather conditions. This is to avoid additional stress to the plants due to cool, wet weather early in the growth period. Use of high rates and adverse growing conditions can cause reduced stands, delayed maturity and reduced yields.

**TANK MIXES AND OVERLAYS**

Observe all precautions and limitations on the labels of each product used in tank mixes and overlays.

**Trilin with SENCOR or LEXONE**

Trilin with SENCOR or LEXONE will control certain grasses and broadleaf weeds listed for Trilin alone and the following weeds:

Jimsonweed	Ragweed, Common
Mallow, Venice (Flower-of-an-hour)	Sesbania, Hemp
Mustard, Wild	Smartweed, Pennsylvania
Prickly Sida	Velvetleaf

Cocklebur, morningglory and giant ragweed (horseweed) control may be erratic. Timely cultivation may improve control. An overlay of SENCOR or LEXONE may be preferred to the tank mix where cocklebur is a serious problem.

Trilin tank mixed with SENCOR or LEXONE may be applied from 2 weeks prior to planting up to planting.

**Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)	1	1.5	2
PLUS			
SENCOR 4L (pints)	0.5	0.75	1
OR			
LEXONE DF or			
SENCOR DF (pounds)	0.33	0.5	0.67

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

**PRECAUTION**

Do not plant any crop other than soybeans within 4 months after treatment. Crop injury, herbicide residue or erratic weed control may result from over application, uneven application or improper soil incorporation. Cold weather, deep planting, seedling disease, excessive moisture, soil pH over 7.5, high salt concentration or drought are additional stress factors. Any of these may weaken crop seedlings and possible damage from the tank mix is increased. These factors may also delay crop development or reduce yields when SENCOR or LEXONE is applied. Do not use foliage from treated plants for feed or forage.

**Trilin preplant followed by SENCOR or LEXONE as an overlay**

After Trilin has been applied as a preplant incorporated herbicide make a single application of

SENCOR or LEXONE as either a broadcast or band spray either during planting or after planting, but before the soybeans emergence. Crop injury may result if SENCOR or LEXONE is sprayed over the top of emerged soybeans.

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints) PLUS	1	1.5	2
SENCOR 4L (pints) OR	0.75-1	0.75-1.5	1-1.75
SENCOR DF (pounds) OR	0.5-0.67	0.5-1	0.67-1.17
LEXONE DF (pounds)	0.5	0.5-0.67	0.67

LEXONE or SENCOR should not be applied to sands or soils with less than 1/2% organic matter or to coarse soils (sandy loam and loamy sand) containing less than 2% organic matter.

**PRECAUTION**

Tracy, Semmes, Altona, Vansoy or Coker 102 soybean varieties are sensitive and crop injury may result if LEXONE or SENCOR is used. Before a SENCOR or LEXONE application, seeds must be planted at least 1.5 inches but not more than 2 inches below the soil surface. Only one application per season should be used at these rates. Do not plant areas treated with SENCOR or LEXONE to any crop other than soybeans within 4 months after treatment. Soybean injury may occur if LEXONE or SENCOR is used on soils having a calcareous surface, a pH of 7.5 or higher, or if they are used in conjunction with soil-applied organic phosphate pesticides. Do not use foliage from treated plants for feed or forage. Observe all precautions and limitations on the labels of each product used in tank mixes and overlays.

**SUGAR BEET**

Use Trilin when plants are between 2 and 6 inches tall as a broadcast overtop spray at a rate of 1 pint per acre on coarse soils and 1.25 to 1.5 pints on medium and fine soils. Use the higher rate for medium and fine soils in areas receiving more than 20" average annual rainfall. Set incorporation machinery to throw treated soil toward the plants in the row. Care should be taken that incorporation machinery does not damage the sugar beet taproot.

**PRECAUTION**

To reduce the possibility of girdling, exposed beet roots should be covered with soil before applying Trilin.

In Colorado, Idaho, Montana, Nebraska, Oregon, Texas, Utah, Washington and Wyoming use a tinetooth harrow (Flextine or Melroe) for incorporation of Trilin for effective weed control in sugar

beets. The tine-tooth harrow should be operated two times over the field the second time in opposite direction at a speed of 3 to 6 mph. The harrow should be set to cut 1 or 2 inches deep. Care should be taken that the tine-tooth harrow does not damage the sugar beet taproot. All recommendations for application procedures and broadcast rates per acre for sugar beet should be followed.

## **SUGAR CANE**

### **Plant Cane**

Apply and incorporate Trilin twice a year at a broadcast rate of 2 to 4 pints per acre for all soil textures. Make the first application of Trilin in the fall immediately after the seed pieces are planted and the second application of Trilin in the spring before or shortly after the cane emerges. Before the spring application rain-packed beds should be loosened 2 to 3 inches deep. Care should be taken so that the seed pieces or emerging shoots are not damaged by incorporation machinery.

#### **Hawaii (postplant) for control of most annual grasses including guineagrass**

Surface apply Trilin after planting (for plant cane) or after harvesting (for ratoon cane) at a broadcast rate of 6 to 8 pints per acre for all soil textures. Apply Trilin prior to germination and emergence of grass weeds. For best results in plant cane, the soil surface should be smooth and finely tilled. Apply Trilin as soon as possible after tillage and planting before germination and emergence of grass weeds. For optimum efficacy in ratoon cane, minimize surface residue from previous crop before applying. For best results, apply Trilin just before anticipated rainfall in non-irrigated and furrow-irrigated sugarcane. Apply 0.5 inch or more irrigation in drip-irrigated or sprinkler-irrigated sugarcane as soon as possible after applying Trilin.

#### **Repeat Applications:**

Subsequent germination flushes of grass weeds may occur prior to the development of a full dense canopy of sugarcane. Once this occurs, additional grass weed establishments is strongly suppressed. One or two additional applications of Trilin can be applied to maintain weed control during the early crop development period. For repeat applications, direct the spray to the soil surface to minimize interception of the herbicide by the crop.

#### **Precaution:**

Do not apply Trilin as a postplant surface applied treatment within 180 days of harvest.

#### **Applications in Louisiana or Texas up to layby for plant cane or ratoon cane**

Use Trilin at a broadcast rate of 2 to 4 pints per acre for all soil textures. This should be done in the spring from before or shortly after the cane emerges up to layby. Use Trilin after the beds have been shaved or false shaved. Rain-packed beds should be loosened 2 to 3 inches deep before application. Care should be taken that seed pieces or emerging shoots are not damaged by incorporation machinery. A rolling cultivator or bed chopper may be used to incorporate Trilin layby applications in sugarcane on all soil textures. Normal incorporation directions for the rolling cultivator should be followed. Bed chopper should be set to cut 3 to 4 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary.

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**Itchgrass (Raoulgrass) control in Louisiana**

Apply and incorporate Trilin on either plant or ratoon cane at a broadcast rate of 4 pints per acre for all soil textures. Directions above for sugarcane layby application in Louisiana and Texas should be followed.

**SUNFLOWER**

Use Trilin in the spring or in the fall between October 15 and December 31. Recommendations for soil preparation application and incorporation procedures for Trilin should be followed.

**Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1.5
Areas receiving greater than 20" average annual rainfall	1	1.5	2

On coarse and medium use 1.5 to 2 pints per acre and 2 pints on fine soils with 2-5% organic matter. Use 2 pints on all soils with 5-10% organic matter.

**TOMATO**

For direct-seeded tomato use Trilin at blocking or thinning as a directed spray to the soil between rows and beneath the plants and incorporated. For transplant tomato, apply and incorporate Trilin preplant, postplant or at lay-by.

**Broadcast Rates Per Acre**

	<b><u>Coarse</u></b>	<b><u>Medium</u></b>	<b><u>Fine</u></b>
Trilin (pints)			
Areas receiving less than 20" average annual rainfall	1	1.25-1.5	1-2
Areas receiving greater than 20' average annual rainfall	1	1.5	2

On soils with 2-5% organic matter use 1.5 pints per acre on coarse and medium textured soils and 2 pints on fine soils. On soils with 5-10% organic matter use 2 pints.

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## VINEYARDS

See FRUIT AND NUT CROPS AND VINEYARDS for Instructions

### WHEAT (WINTER)

Colorado, Idaho, Kansas, Montana, Nebraska, Oregon, Washington and Wyoming

Apply Trilin for preplant preemergence control of cheatgrass and other annual grasses and broadleaf weeds controlled by Trilin. If the seed is placed below the zone of soil treated with Trilin the growth development and yield of winter wheat will not be adversely affected.

Use Trilin any time during a period from 3 weeks to immediately prior to planting. Apply Trilin at a broadcast rate of 1.5 pints per acre on coarse and medium soils and 2 pints on fine soils.

#### **Incorporation**

Incorporate Trilin into the soil with a flexible tine-tooth harrow (Flextine Melroe) set to cut 1 to 2 inches deep and operate at 3 to 6 mph. Within 24 hours after application incorporate one time followed by a second incorporation in a different direction from the first prior to planting. After the Trilin has been incorporated with a flexible tine harrow do not till the soil with a disc.

#### **Seeding Directions**

Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone of soil into which Trilin has been incorporated.

#### **PRECAUTION**

Crop injury such as delayed emergence and development may occur when wheat is planted in direct contact with treated soil.

#### **Fallow soil application in Washington and Oregon**

To control cheatgrass and certain annual grasses and broadleaf weeds apply Trilin and shallowly incorporate into fallow soil up to four months ahead of planting. As long as the seed is placed below the zone of soil treated with Trilin the growth development or yield will not be adversely affected. Use deep or semi-deep furrow drills. Use at a broadcast rate of 1.5 pints per acre on coarse and medium soils and 2 pints on the fine soils. Trilin can be applied any time from May to September prior to the fall planting of winter wheat.

#### **Incorporation**

Incorporate Trilin using a flexible tine-tooth harrow (Flextine or Melroe) set to cut 1 to 2 inches deep and operated at 3 to 6 mph. Two passes over the field in different directions are necessary for thorough incorporation. Incorporate one time within 24 hours after application followed by a

second incorporation prior to seeding. When a flexible tine harrow has been used to apply Trilin do not till the soil with a disc.

### **PRECAUTION**

Deep furrow or semi-deep furrow drills only should be used. Seed should be placed below the zone of soil into which Trilin has been incorporated. Injury to the crop or delay in emergence or development may occur if wheat is planted directly into the zone of soil treated with Trilin.

## **WHEAT (SPRING), DURUM AND BARLEY**

### **Preplant Barley**

Apply and incorporate Trilin before planting in the spring or in the fall after September 1, at the rate of 1 pint per acre on coarse soils, 1.5 pints per acre on medium soils and 1.5 pints on fine soils. Use 1.5 pints of Trilin per acre on coarse and medium soils with 2-5% organic matter. Incorporate Trilin into the soil with a flexible tine-tooth harrow, (Flexline, Melroe) set to cut 1 to 2 inches deep and operate at 3 to 6 mph. Within 24 hours after application, incorporate one time followed by a second incorporation in a different direction from the first, prior to planting. After the Trilin has been incorporated with a flexible tine harrow do not till the soil with a disc. Use only a deep furrow or semideep furrow drill that will place the seed below the zone of soil into which Trilin has been incorporated.

### **PRECAUTION**

Crop injury such as delayed emergence and development may occur when barley is planted in direct contact with treated soil. **DO NOT MAKE MORE THAN ONE Trilin APPLICATION PER SEASON.**

### **Postemergence Wheat (Spring), Durum and Barley**

#### **Trilin Alone**

To control foxtail (pigeongrass) Trilin is recommended as a postplant incorporated treatment. Use Trilin at a broadcast rate of 1 pint per acre on coarse and medium soils and 1.5 pints on fine soils. Seedbed should be well-tilled and seed planted 2 to 3 inches deep. Use Trilin after seeding but prior to crop emergence. Use flexline or diamond harrow operated two times in different directions to incorporate. Incorporate by operating equipment at a speed of at least 5 mph and set at to 1.5 inches deep. Apply and incorporate the first time in the same operation if possible. Both incorporations must be done within 24 hours.

#### **Trilin with FAR-GO tank mix**

This tank mix will effectively control all the weeds controlled by Trilin alone plus these additional weeds.

Foxtail

Pigeongrass

Wild Oat



Apply Trilin with FAR-GO as a postplant incorporated treatment. Plant 2 to 3 inches deep in a well-tilled seedbed. Trilin with FAR-GO should be applied after seeding but prior to crop emergence. Use flextime or diamond harrows to incorporate. Make two passes each in different directions at speeds of at least 5 mph operating equipment 1 to 1.5 inches deep. Application and the first incorporation should be done in the same operation if possible. If not incorporate immediately after application.

**Broadcast Rates Per Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)			
Barley, Durum, Spring Wheat	1	1	1.5
<b>PLUS</b>			
FAR-GO (pints)			
Durum, Spring Wheat	2.5	2.5	2.5
Barley	2	2	2

**PRECAUTION**

Over application may result in crop injury. Observe all precautions and limitations on the label of each product used in tank mixes and overlays. **DO NOT MAKE MORE THAN ONE Trilin APPLICATION PER SEASON.**

**ORNAMENTALS**

Apply and mechanically incorporate Trilin prior to planting new nursery stock liners, ornamentals, trees and woody shrubs and gladioli. Gladioli corms less than 1 inch in diameter may be injured by pre-plant applications. Trilin may also be applied to these and other listed ornamentals (see below) after they are established. When mechanically incorporated after planting, the implement should be adjusted so that treated soil is thrown forward and around the plants in the row.

**Broadcast Rates/Acre**

	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Trilin (pints)	1.0	1.5	2.0

For the indicated ornamental groundcovers, apply 1 gallon/acre (3 oz/1000 sq ft) of Trilin in 5 to 40 gallons of water per acre and incorporate within 24 hours with at least a 1/2 inch rain or its equivalent in sprinkler irrigation.

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Woody Shrubs

Trees

Ground Cover

Andromeda, Japanese  
 Arborvitae, American  
 Azalea  
 Barberry, Japanese  
 Barberry, Mento  
 Boxwood, Common  
 Boxwood, Harlands  
 Boxwood, Litteleaf  
 Camellia, Japanese  
 Camellia, Sasanqua  
 Cherrylaurel, American  
 Cinquefoil  
 Cleyera, Japanese  
 Cotoneaster, Cranberry  
 Cotoneaster, Zabel  
 Deutzia  
 Elaeagnus, Silverberry  
 Euonymus, Spreading  
 Euonymus, Winged  
 Euonymus, Wintercreeper  
 Firethorn  
 Forsythia  
 Guava, Pineapple  
 Holly  
 Honeysuckle  
 Indiahawthorn  
 Juniper  
 Laurel, Mountain  
 Lilac, Common  
 Mockorange  
 Pittosporum, Japanese  
 Privet  
 Redcedar, Eastern  
 Rhododendron  
 Spiraea, Vanhoutte  
 Virburnum  
 Weigela  
 Willow  
 Yew, Anglojap  
 Yew, Japanese  
 Yewpine

Almond  
 Apple, Crabapple  
 Apricot  
 Ash, White  
 Baldcypress  
 Birch, European White  
 Black gum  
 Cherry  
 Chestnut, Chinese  
 Cottonwood  
 Dogwood, Flowering  
 Dogwood, Kousa  
 Douglasfir  
 Fir, Balsam  
 Hemlock, Canada  
 Honeylocust  
 Larch, Japanese  
 Locust, Black  
 Maple, Norway  
 Maple, Red  
 Maple, Silver  
 Maple, Sugar  
 Oak, Pin  
 Oak, Red  
 Oak, Scarlet  
 Peach  
 Pine, Austrian  
 Pine, Easter White  
 Pine, Japanese Black  
 Pine, Loblolly  
 Pine, Red  
 Pine, Scotch  
 Planetree, London  
 Plum  
 Redbud, Eastern  
 Spruce, Colorado  
 Spruce, Norway  
 Spruce, White  
 Sweetgum  
 Sycamore  
 Tuliptree  
 Walnut, Black

Aaronsbeard  
 Bellflower, Adriatic  
 Bellflower, Poscharsky  
 Ceanothus  
 Coreopsis  
 Cotoneaster  
 Coyote Brush  
 Crown Vetch  
 Daisy Trailing African  
 Fern, Asparagus  
 Gazania  
 Germander  
 Ice Plant, Largeleaf  
 Ivy, Algerian  
 Ivy, English  
 Lily-of-the-Nile  
 Lilyturf, Bigblue  
 Marigold  
 Myoporum  
 Plumbago, Dwarf  
 Rockrose  
 Rosemary  
 Rupturewort  
 Snow-in-Summer  
 Speedwell  
 St. Johnswort  
 Stonecrop (Sedum)  
 Strawberry, Beach  
 Thrift  
 Verbena  
 Wirevine, Creeping  
 Yarrow, Woolly  
 Zoysiagrass

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Roses and Other Established Flowers

- |                   |                      |
|-------------------|----------------------|
| African Daisy     | Marigold             |
| Aster (perennial) | Marigold, Cape       |
| Balsam            | Morningglory         |
| Black-eyed Susan  | Nasturtium           |
| Calendula         | Petunia              |
| Carnation         | Phlox                |
| entaurea, Velvet  | Pincushion flower    |
| Chrysanthemum     | Poppy, California    |
| Coreopsis         | Portulaca            |
| Cornflower        | Rose                 |
| Cosmos            | Salvia               |
| Dahlia            | Shasta Daisy         |
| Dianthus          | Snapdragon           |
| Dusty Miller      | Snow-on-the-mountain |
| Floss Flower      | Stock                |
| Forget-me-not     | Sunflower            |
| Four O'Clock      | Sweet Allosome       |
| Gaillardia        | Sweet Pea            |
| Gladiolus         | Sweet Sultan         |
| Golden Glow       | Sweet William        |
| Impatiens         | Vinca                |
| Ixora             | Yarrow               |
| Lobelia           | Zinnia               |
| Lupine            |                      |

**UNDER PAVED SURFACES**

General Use Instructions and Site Preparation: Trilin should be used only where the soil to be treated has been prepared according to good construction practices. If rhizomes, stolens, tubers or other vegetative plant parts are present in the site, they should be removed by scalping with a grader blade to a depth sufficient to insure their complete removal.

Application may be made after the final road bed is established or after the base rock has been added. Do not move soils after application of Trilin and do not apply Trilin to soil where asphalt is to be applied directly on top of the treated soil. Paving should follow Trilin applications as soon as possible.

**Large Areas:** Apply Trilin in sufficient water to insure thorough wetting of the soil surface or penetration of the spray solution through the base rock layer. A minimum of 150 gallons per acre is recommended. Apply uniformly with a ground sprayer. Using a ground sprayer add Trilin to clean water during filling of spray tank. Agitate before spraying.

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**Small Areas:** For treating small areas, a hand sprayer or sprinkling can may be used. Before application determine the amount of water and Trilin necessary to uniformly cover the area to be treated. Shake or stir the spray solution prior to application.

	<b>Ounces / 1000 Sq. Ft.</b>	<b>Gallons / Acre</b>
Trilin	9.0 -12.0	3- 4

**WARRANTY STATEMENT**

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid for this product or, at Griffin Corporation's election, the replacement of this product. **GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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- KARMEX is a registered trademark of E.I. Dupont de Nemours and Company
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- Meturon is a registered trademark of Griffin Corporation
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