

PM 23 1812-355

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US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (75-767) WASHINGTON, DC 20460  <b>NOTICE OF PESTICIDE:</b> <input checked="" type="checkbox"/> REGISTRATION <input type="checkbox"/> REREGISTRATION <i>(Under the Federal Insecticide, Fungicide,          and Rodenticide Act, as amended)</i>	EPA REGISTRATION NO. 1812-355	DATE OF ISSUANCE MAR 8 1994
	TERM OF ISSUANCE Conditional	
	NAME OF PESTICIDE PRODUCT Trilin Herbicide	

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Griffin Corporation  
P.O. Box 1847  
Valdosta, GA 31603

**NOTE:** Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others. This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit/Cite all data or other material required for registration/re-registration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
2. Add the phrase, "EPA Registration No. 1812-355" to your label before you release the product for shipment.
3. Add the statement "Contains Petroleum Distillates" just below the ingredients statement.

Submit three (3) copies of your final printed labeling, with the changes referred to above, before you release the product for shipment. Refer to the A 79 previously mailed to you for a further description of final printed labeling.

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

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL: *James A. Miller* DATE: MAR 8 1994

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A stamped copy of the label is enclosed for your records.

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

Enclosure

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CONCURRENCES

SYMBOL	7505C						
SURNAME	Robbins						
DATE	3/3/94						



ACCEPTED  
with COMMENTS  
in EPA Letter Dated

MAR 8 1994

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
1812-355

3044  
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# Trilin®

HERBICIDE



Made in the USA

**A Selective Herbicide for the Pre-Emergence 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*

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING — AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted no detalle. (If you do not understand this label, find someone to explain it to you in detail).

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED:** Drink 1 to 2 glasses of water. Induce vomiting by placing finger in back of throat. Call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**IF ON SKIN:** Wash immediately with soap and water.

**IF IN EYES:** Flush with plenty of water for at least 15 minutes. Get medical attention.

**GRIFFIN CORPORATION**  
VALDOSTA, GEORGIA 31601

EPA REG NO 1812-

4044

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) WARNING

Precautionary Statements: Causes substantial, but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin or clothing. Do not contaminate foodstuffs or feeds.

### ENVIRONMENTAL HAZARDS

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

### PERSONAL PROTECTIVE EQUIPMENT

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
- protective eyewear

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Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### 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.

### 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. 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.

### PHYSICAL AND CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame.

### 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  $\geq$  14 mils
- shoes plus socks
- protective eyewear

### STORAGE AND DISPOSAL

Avoid freezing. Store above 40°F. If frozen, poor weed control may result. Do not store near heat or flame. Do not contaminate water, food or feed by storage or disposal.

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

**CONTAINER DISPOSAL:** 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.

# GRASSES AND BROADLEAF WEEDS CONTROLLED BY TRILIN

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## Grasses

Annual Bluegrass	<u>Poa annua</u>
Barnyardgrass (Watergrass)	<u>Echinochloa</u> sp.
Brachiaria (Signalgrass)	<u>Brachiaria</u> sp.
Bromegrass (Cheatgrass) (Downy Brome)	<u>Bromus tectorum</u>
Cheat (chess)	<u>Bromus secalinus</u>
Crabgrass (Large Crabgrass) (Smooth Crabgrass)	<u>Digitaria</u> spp.
Foxtail: (Bottlegrass) (Bristlegrass) (Giant Foxtail) (Green Foxtail) (Foxtail Millet) (Pigeongrass) (Robust Foxtail) (Yellow Foxtail)	<u>Setaria</u> spp.
Johnsongrass (from seed) (Rhizome - see special instructions for control in cotton and soybeans)	<u>Sorghum halepense</u>
Junglerice	<u>Echinochloa colorem</u>
Panicum Fall Panicum (Spreading Panicgrass - see special instructions in cotton and soybeans)	<u>Panicum dichotomiflorum</u>
Guineagrass (See sugarcane for special instructions)	<u>Panicum dichotomiflorum</u>
Texas Panicum (Buffalograss) (Coloradograss)	<u>Panicum texanum</u>
Itchgrass (Raoulgrass) (See sugarcane for special instructions)	<u>Rottboellia exaltata</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 ciliaris</u>
Wild Cane (Shattercane)	<u>Sorghum bicolor</u>
(See Soybean - Trilin Along for special instructions)	<u>Eriochloa villosa</u>
Woolly Cupgrass	

## Broadleaf Weeds

Carpetweed	<u>Mollugo verticillata</u>
Chickweed	<u>Stellaria media</u>
Field Bindweed	<u>Convolvulus arvensis</u>
(See Fruit and Nut Crops and Vineyards for special instructions)	
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</u> spp.
Puncturevine (western U.S. only)	<u>Tribulus terrestris</u>
(Caltrop) (Goathead)	
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 population 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 (Palmar 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 specialist for specific recommendations for local weed populations.

## 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 of 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:

Coarse	Medium	Fine
Sand	Loam	Sandy Clay
Loamy Sand	Silt	Clay Loam
Sandy Loam	Silt Loam	Silty Clay, Clay
	Silty Clay Loam*	
	Sandy Clay Loam*	

\*Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loam soils are 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 crop or crops of interest for specific instruction.

### 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 operate at 5 mph or more. Do not use chisel points.

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**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.

## 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 through 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 pre-mixing 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.

### 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 pre-emergence 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 or are subject to prolonged periods of flooding or where rice was grown the previous year.

### Plantback 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.

In those areas of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota and Texas where at least 20 inches of rain/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" rainfall per year, 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.

### 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. Seeding 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.

## 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 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.

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

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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.

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

### ALFALFA Established

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 eased if the proper incorporation equipment is not used for thorough soil mixing. Recommended soil preparation application and incorporation instructions should be followed.

#### Application Timing and Rates

Trilin may be applied to established alfalfa prior to weed emergence while the crop is dormant, semidormant or during the season if applied immediately after a cutting. Alfalfa should not be cut or grazed within 21 days of application. Trilin should be applied only once per growing season. Trilin does not control established weeds and as such treatment must be made prior to germination.

For cool season fall germinating weeds such as bromegrass and cheat Trilin should be applied from August 1 to October 1. For other weeds on the label apply prior to their season of germination generally late winter to early spring.

#### PRECAUTION

Do not apply when winds are greater than 10 to 15 mph to avoid drift or wind skips. Do not apply thorough any system with leaking connections.

### 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 seeding asparagus and field bindweed if you use the following recommended rates and application schedules.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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

	Coarse	Medium	Fine
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)

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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.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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.

#### PRECAUTIONS

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.

### CARROT

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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.

### CELERY

Direct seeded and transplant in areas receiving less than 20" average annual rainfall.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
Trilin (pints)	1	1.25-1.5	1.5

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.

### COLE CROPS

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

#### Transplant

Apply and incorporate Trilin prior to transplanting only.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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.

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**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.

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 two weeks prior to planting.

**PRECAUTIONS**

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                |
| Melva                 | Smartweed              |
| Mustard               | Wild Oat               |

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

**COTTON**

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

**Preemergence**

**Broadcast Rates Per Acre**

	Coarse	Medium	Fine
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 to 2.5 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 grounds, knock down beds to desired heights before planting, moving some treated soil into 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.

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

In Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee, and Texas, 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 Arizona and Nevada, a broadcast rate of 1.5 pints per acre should be used on coarse soil, 2 pints on medium soil and 2.5 pints on 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 to 2.5 pints.

**Broadcast Rates Per Acre**

	Coarse	Medium	Fine
Trilin (pints)	1	1.25 - 1.5	2
PLUS Cotton Pro (pints)	3.125	4	4
OR 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**

Make a slurry following the instructions on the Cotton Pro or CAPAROL 4L label. Add slurry 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, cautions and precautions.

**PRECAUTIONS**

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 80DF, 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           | Morningglory           | Sesbania   |
| Cocklebur            | Prickly Sida (Teaweed) | Sicklepod  |
| Groundcherry, Wright | Ragweed                | Smartweed  |
| Jimsonweed           | Ryegrass               | Tumbleweed |

**Broadcast Rates Per Acre**

	Coarse	Medium	Fine
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)	1.5	2	2.4

**Mixing Directions**

Make a slurry following the instructions on the Meturon or COTORAN labels. Add slurry 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.

**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.

**Rhizome Johnsongrass**

Rhizome Johnsongrass can be controlled in all cotton producing states except Arizona by using a double rate program applied 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 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 coarse soils, 3 pints on medium soils and 4 pints on fine 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.

**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 following a double rate treatment season 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



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**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 Trifin.

**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.

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

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

Apply and incorporate Trifin 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.

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

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

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

Pennycress	Valvetgrass
Ragweed	Wild Lettuce
Shepherdspurse	Wild Mustard

Broadcast Rates Per Acre

	Coarse	Medium	Fine
Trifin (pints)	1	1.5	2
PLUS			
Direx 4L (pints)	0.5	1	1.75
OR			
KARMEK DF (pounds)	0.33	0.67	1

**PRECAUTIONS**  
Observe all precautions and limitations on the label of each product used in tank mixes and overlays. Direx 4L or KARMEK 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 gaze treated areas.

**CUCURBITS**

**Cantaloupe, Cucumber and Watermelon**

Postplant Emerged in Western United States including Texas  
Apply Trifin as a directed spray to the soil between the rows and beneath plants which are in the 3 to 4 true leaf stage.

Broadcast Rates Per Acre

	Coarse	Medium	Fine
Trifin (pints)			
Soils receiving less than average annual rainfall	1	1.25-1.5	1.5
Soils 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 Trifin to field corn or grain sorghum (8 inches or taller) as an over-the-top or directed spray to effectively control weeds listed for Trifin. Trifin 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 Trifin.

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

**Application Directions**  
Trifin should be applied and incorporated at the recommended rates for the soil texture when the crop is well established (8 inches or taller). Trifin 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

	Coarse	Medium	Fine
Trifin (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

**Trifin with Atrazine Tank Mix**

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

Broadcast Rates Per Acre

	Coarse*	Medium	Fine
Trifin (pints)	0.75-1	1-1.5	1.5-2
PLUS			
AAtrax 4L (pints)	2.4	4.75	6

When using AAtrax 4L use the rates listed above. For other atrazine formulations, use equivalent rates. When using AAtrax 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 Trifin/Atrazine tank mix as directed on the Trifin label for field corn and grain sorghum.

**PRECAUTIONS**  
Do not apply Trifin 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**

Trifin 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 Trifin with soil. Otherwise, erratic weed control may result.

**Incorporation Equipment**  
Follow recommended soil incorporation procedures for Trifin. 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 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 Trifin 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 Trifin 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 Trifin 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 Trifin 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 Trifin 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 Trifin 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 Trifin for 2 consecutive years.

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

**Application**  
Use Trifin 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 Trifin 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 Trifin use.

**PRECAUTIONS**  
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 Trifin has been registered as a preplant treatment for the next cropping season.

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**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 disking or other tillage. Avoid deep tillage which disturbs the surface layer. Cultivation or tillage also aids the control of germinating seeds.

**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**

	Coarse	Medium	Fine
Trilin (pints)	0.75-1	1-1.5	1.5-2

**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) 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.

**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.

**NUT CROPS**

See FRUIT AND NUT CROPS AND VINEYARDS for Instructions.

**OKRA**

**Broadcast Rates Per Acre**

	Coarse	Medium	Fine
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.

**ONIONS**

**Grown for Dry Bulbs Only**

Apply Trilin as a directed spray to the soil between the onion rows. Avoid spraying the onion tops or exposed bulbs. Do not apply within 60 days of harvest. Broadcast Rates Per Acre

	Coarse	Medium
Trilin (pints)	0.75-1	1-1.25

For band applications, use proportionately less Trilin. Use the lower rates where light weed pressure is anticipated.

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

**PRECAUTION**

Applied according to these directions and under normal growing conditions Trilin will not adversely affect onions. Diseases, improper incorporation depth, excessive moisture, high salt concentration or drought may weaken the crop and increase the possibility of damage from Trilin. Under these conditions, delayed crop development or reduced yields may result.

**PEA**

**Dry and English**

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.

**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.

**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.

**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.

**PEANUT**

**Spanish Peanut in 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. 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**

	Coarse	Medium	Fine
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.

**Broadcast Rates Per Acre**

	Coarse	Medium	Fine
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 & 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

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## SOUTHERN PEA

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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 a 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.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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	1	1-1.5	1-2
PLUS			
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 direction 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 or forage or for grazing.

## RAPESEED (Canola) 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

	Coarse	Medium	Fine
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

	Coarse	Medium	Fine
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.

Apply and incorporate Trilin prior to planting only.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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

	Coarse	Medium	Fine
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 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, 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; 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.

## 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.

#### 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.

#### Broadcast Rates Per Acre

Application	Coarse	Medium	Fine	Coarse with	Coarse with
				2-5% organic matter	5-10% organic matter
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

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second year as follows for Arkansas, Louisiana, and Mississippi:

	Coarse	Medium	Fine
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.

**Broadcast Rates Per Acre**

Application	Coarse	Medium	Fine	Coarse with 2-5% organic matter	Coarse with 5-10% organic matter
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.

**PRECAUTIONS**

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	Sesbania, Hemp
(Flower-of-an-hour)	Smartweed, Pennsylvania
Mustard, Wild	Velvetleaf
Prickly Sida	

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**

	Coarse	Medium	Fine
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.

**PRECAUTIONS**

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 on 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**

	Coarse	Medium	Fine
Trilin (pint)	1	1.5	2
PLUS SENCOR 4L (pints)	0.75-1	0.75-1.5	1-1.75
OR SENCOR DF (pounds)	0.5-0.67	0.5-1	0.67-1.17
OR 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% organic matter or to coarse soils (sandy loam and loamy sand) containing less than 2% organic matter.

**PRECAUTIONS**

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 tine-tooth harrow (Flexline 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 but before weeds and cane emergence. A broadcast rate of 6 to 8 pints per acre should be used for all soil textures. For plant cane, form or roll beds before application. For ratoon cane remove crop residue prior to application. Trilin will not be effective if large amounts of residue are present.

Use Trilin just before anticipated rainfall or sprinkle irrigate immediately after application.

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.

#### Highgrass (Rauougrass) 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

	Coarse	Medium	Fine
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 prior to transplanting. Trilin should not be used after transplanting.

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
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.

## 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.

Apply Trilin any time during a period from 3 weeks up 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 (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.

#### 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 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 (Flexline 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

#### 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 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 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 1.5 inches deep. Apply and incorporate the first time in the same operation if possible. Both incorporations must be done with 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
Trilin (pints)			
Barley, Durum, Spring Wheat PLUS FAR-GO (pints)	1	1	1.5
Durum, Spring Wheat Barley	2.5	2.5	2.5
	2	2	2

#### Broadcast Rates Per Acre

	Coarse	Medium	Fine
Trilin (pints)			
Barley, Durum, Spring Wheat PLUS FAR-GO (pints)	1	1	1.5
Durum, Spring Wheat Barley	2.5	2.5	2.5
	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.

## 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 to water. Trilin label recommendations regarding rates per acre crops incorporation directions special instructions cautions and special 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.

#### Testing for Tank Mix Compatibility in Liquid Fertilizers

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
  - (c) emulsifiable concentrates; add one tablespoon for each pint/100 gallons.
  - (d) flowables; add one teaspoon for each pint per 100 gallons
  - (e) soluble ingredient; add one tablespoon for each pint/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 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 not 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).

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**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, flowables 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 is difficult to redispense. 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)
- \*Compt (Farm Chemicals Incorporated, Aberdeen, NC)
- \*Kens-Link (Universal Coop., Minneapolis, MN)
- \*Rigo Compatibility Agent (Rigo Company, Buckner, KY)
- \*Sponfo 168D (Wilco Chemicals Company, Chicago, IL)
- \*T-Mutz 734-2 (Thompson-Hayward Chemical Co.)
- \*Unite (Hopkins Ag Chemicals, Madison, WI)
- \*Not for use in California

**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.

**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 1/2 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

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

Pints Trilin	x	1000	=	Quarts Trilin
Per Acre		Lbs. Fertilizer Per Acre		Per Ton of Fertilizer

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.

**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, cautions and special 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 above 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.

**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.

**NOTICE OF WARRANTY**

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. Griffin MAKES NO WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

- CAPAROL - prometryn, Ciba-Geigy Corporation
- COTORAN - fluometuron, Ciba-Geigy Corporation
- Cotton Pro - prometryn, Griffin Corporation
- Direx 4L - diuron, Griffin Corporation
- EPTAM - EPTC, ICI Americas, Incorporated
- FAR-GO - triallate, Monsanto Agricultural Products Company
- KARMEX - diuron, E.I. Dupont de Nemours and Company
- LEXONE - metribuzir, E.I. Dupont de Nemours and Company
- Meturon - fluometuron, Griffin Corporation
- SENCOR - metribuzin, Mobay Corporation
- Trilin - trifluralin, Griffin Corporation.

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