PH23 18/2-353



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

MAY 6 1994

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

L. Vernon White GRIFFIN CORPORATION P. O. Box 1847 Valdosta, GA 31603-1847

Subject: Label Amendment Submission of 06/24/93 in Response to PR Notice 93-7 EPA Reg. No. 1812-353 TRILIN 5

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

# WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

# WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

 BEFORE selling or distributing any product bearing the final printed labeling AND

• WITHIN one year from date of this acceptance.



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Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs (7505C) U.S. Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs Room 266A, Crystal Mall 2 1921 Jefferson Davis Highway Arlington, VA 22202

Sincerely, Ν. Jim Tompkins, Deputy Chief

Registration Support Branch Registration Division (7505W) 20447

Attachment

GRIFFINS 1812-353 06/24/93 TRILIN 5

Original Submissions

User Safety Recommendations and the Agri. Use Requir. must either be placed in a box or printed on the label in a contrasting color from surrounding text.

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# TRILIN 5

# **ACTIVE INGREDIENT:**

Trifluralin (alpha, alpha, alpha-trifluoro-2, 6-dinitro-N, N-dipropyl-p-tol	uidine)50.8%
INERT INGREDIENTS	<u></u>
TOTAL	100.0%

Contains 5 lbs. Trifluralin per gallon. Contains Petroleum Distillate

# **KEEP OUT OF REACH OF CHILDREN**

# WARNING - AVISO

PRECAUCION-AL-USARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente.

# STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person. IF INHALED: Remove victim to fresh air. Apply artificial respiration if indicated.

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

IF ON SKIN: Wash with soap and water.

See Additional Precautionary Statements

GRIFFIN CORPORATION VALDOSTA, GA 31601

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DEST AVAILABLE COP

EPA REG. NO. 1812-353

ACCEPTED with COMMENTS In EPA Letter Dated

MAY 6 1994 Under the Federal Insecticide, Fundicide, and Rodenticide Act an amended, for the pesticide registered under EPA Reg. No. - 151,1 353

# HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) WARNING

**Drecautionary Statements** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear safety glasses when handling. Wash-thoroughly with soap and water after handling. Harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing spray Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

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Set Safety Recommendations

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# 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 by cleaning of equipment or disposal of wastes.

# PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

# DIRECTIONS FOR USE

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



non-apply this product in a way that will contact workers on other persons, either threatly or through daffs Only protected thandlers may be the negatest dual peraphication of containy rematements specific to your State or Pribe, consult the agency responsible for pesheide requiring

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#### **RE-ENTRY-STATEMENTS**

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

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

# STORAGE AND DISPOSAL



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

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

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.

# CHEMIGATION STATEMENT

Refer to labeling entitled Chemigation Use Instructions (Citrus Crops only) for use directions on chemigation. Do not apply this product through any type of irrigation system unless the labeling on chemigation is followed.

# **GENERAL INFORMATION**

Trilin 5 is a preemergence herbicide which is incorporated into the soil to provide long-lasting control of many annual grasses and broadleaf weeds. Trilin 5 controls weeds as they germinate. Trilin 5 will not control established weeds.

# WEEDS AND GRASSES CONTROLLED BY TRILIN 5

#### GRASSES

Annual bluegrass -- Poa annua

Barnyardgrass (Watergrass) -- Echinochloa sp.

Brachiaria (Signalgrass) -- Brachiaria sp.

Bromegrass (Cheatgrass, Downy brome) -- Bromus tectorum

Cheat (Chess) -- Bromus secalinus

Crabgrass (Large crabgrass, Smooth crabgrass) -- Digitaria spp.

Foxtail (Bottlegrass, Bristlegrass, Giant foxtail, Green foxtail, Foxtail millet, Pigeongrass, Robust foxtail, Yellow foxtail) -- Setaria spp.

Goosegrass (Silver crabgrass, Silvergrass, Wiregrass, yardgrass) -- Eleusine indica

Johnsongrass (from seed) (Rhizome -- see cotton and soybean sections for special instructions) -- Sorghum halepense

Junglerice -- Echinochloa colonum

Panicum (Fall panicum) (Spreading panicgrass -- see cotton and soybean sections for special instructions) -- Panicum dichotomiflorum

Guineagrass (See sugarcane section for special instructions) -- Panicum maximum Texas panicum (Buffalograss, Coloradograss) -- Panicum texanum

Itchgrass (Raoulgrass) (see sugarcane section for special instructions) -- Rottboellia exaltata Red Rice (see soybean section for suppression or partial control directions) -- Oryza sativa Sandbur (Burgrass) -- Cenchrus incertus

Sprangletop -- Leptochloa filiformis

# Stinkgrass (Lovegrass) -- Eragrostis cilianesis

Wild cane (Shattercane) (see soybean section for special instructions) Sorghum bicolor Wild oat (Preplant only. Not for fall applications for spring seeded cereals) -- Avena fatua Woolly cupgrass -- Eriochloa villosa

# **BROADLEAF WEEDS**

Carpetweed -- Mollugo verticillata

Chickweed -- Stellaria media

Field bindweed (see fruit and nut crops and vineyards section for special instructions) --Convolvulus arvensis

Florida pusley (Florida purslane, Mexican clover, Pusley) -- Richardia scabra

Goosefoot -- Chenopodium hybridum

Henbit (fall application only) -- Lamium amplexicaule

Knotweed -- Polygonum aviculare

Kochia (fireweed, Mexican fireweed) -- Kochia scoparia

Lambsquarters -- Chenopedium album

Pigweed (Carelessweed, Prostrate pigweed, Redroot, Rough pigweed, Spiny pigweed) --Amaranthus spp.

Puncturevine (Western U.S. only) (Caltrop, Goathead) -- Tribulus terrestris

Purslane -- Portulaca eleracea

Russian thistle (Tumbleweed) -- Salsola kali

Stinging nettle (Nettle) -- Urtica dioica

# SOIL PREPARATION

Crop Residues or Existing Weeds

Ground cover, such as crop residues or existing weeds, can interfere with the incorporation of Trilin 5 into the soil. A manageable level of such ground cover will allow the Trilin 5 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 this product.

#### Roughness

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

#### General Soil Conditions

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

#### Soil Texture Guide

The amount of Trilin 5 you apply will vary with the soil texture and organic matter. A fine textured soil will require more per acre than a coarse soil. Choose the proper rate for each application based on the following soil texture group and specific crop recommendations. Do not exceed recommended rates.

Soil Texture	Soil Classification
Coarse Soils (Light)	Sand, loamy sand, sandy loam

Medium Soils Fine Soils Loam, silty clay loam\*, silt, sandy clay loam\* Clay, clay loam, silty clay loam\*, silty clay, sandy clay, sandy clay loam\*

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

#### Trilin 5

# MIXING AND APPLICATION DIRECTIONS

Start with a clean spray tank. Fill sprayer 1/3 to 1/2 full with clean water. Start agitation. Add correct quantity of Trilin 5, continue agitation and finish filling tank.

#### Trilin 5 Tank Mix in Water

Vigorous, continuous agitation is required for all tank mixes. (Sparger pipe agitators generally provide the best agitation in spray tanks). Avoid stirring or splashing air into the mixture during filling to prevent foaming. To do this, place 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 1/4 to 1/3 full with clean water. Start the agitation. Add dry flowables, wettable powders (WP), aqueous suspensions (AS), flowables (F), and liquids (L) to the water and agitate until the product(s) are completely dispersed in the water. Allow additional mixing and dispersion time when using dry flowable products. Continue agitation and fill tank to 3/4 full, add the Trilin 5, mix thoroughly. Then add any solution (S) formulations, agitate and finish filling. Maintain agitation curing filling and through application. If spraying and agitation must be stopped before the tank is empty, the materials may settle to the bottom. In this case, it is important to resuspend all of the material in the bottom of the tank before continuing the spray application. A sparger agitator is particularly useful for this purpose. Sometimes it is more difficult to resuspend settled material than it is to suspend it originally.

Read and carefully follow all label instructions for each material added to the tank.

Premixing dry and flowable formulations with water (slurring) and pouring the slurry through a 20 or 35 mesh wetting screen in the top of the tank will help assure good initial dispersion in the tank water. Line screens in the tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

If you see a buildup of material on the walls of the sprayer tank, wash the tank with soapy water between fillings, rinse and continue the spraying operation. Clean the tank, lines, and screens thoroughly after use.

As the spray volume decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform "pplication. Do not apply Trilin 5 when the wind can cause drifting of spray particles which can result in non-uniform application. Trilin 5 should not be applied to soils which are wet or are subject to prolonged periods of flooding as poor weed control may result. Ground Application

Apply Trilin 5 in 5 to 40 gallons of water or liquid fertilizer per acre (broadcast basis), use any properly calibrated, low pressure herbicide that will apply the spray uniformly.

# Aerial Application

Apply Trilin 5 in 5 to 10 gallons of water or liquid fertilizer per acre. Adjust pump pressure, nozzle arrangements, speed and height to provide a uniform application to the soil surface. Use swath markers or flagmen to assure proper application spray widths.

# **INCORPORATION DIRECTIONS**

Incorporation Equipment -- General Directions

Use incorporation equipment that mixes Trilin 5 into the top 2 to 3 inches of the final seedbed, or erratic weed control and/or crop injury may result. Incorporation equipment such as a disc will mix approximately half as deep as the equipment is set to operate. For example, a disc set to cut 4 inches deep will incorporate most of the Trilin 5 within the top 2 inches of soil.

#### Incorporation Before Planting

Trilin 5 must be incorporated one time within 24 hours after application. Then any time prior to planting, a second incorporation is necessary, this time running the equipment in a different direction from the first. You should incorporate the Trilin 5 uniformly into the top 2 to 3 inches of the final seedbed.

#### Incorporation After Planting

Check specific crop for incorporation directions after planting.

#### Incorporation in Bedded Culture

For effective weed control, Trilin 5 needs to be incorporated into the top 2 to 3 inches of the final seedbed.

Application Prior to Bedding -- Apply Trilin 5 and incorporate it one time with recommended equipment. The bedding operation serves as the second incorporation. Do not expose untreated soil during postbedding operations.\*

Application After Bedding -- Knock off beds to planting height before applying Trilin 5. Apply and incorporate it with recommended equipment that will conform to the bed shape. Do not leave treated soil exposed.\*

\*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.

# Recommended Equipment

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

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

Field Cultivator -- Set to cut 3 to 4 inches deep and operate at 5 mph or more. A field cultivator is defined as an implement with 3 to 4 rows of sweeps, spaced at intervals of 7 inches or less

and staggered so that no soil is left unturned. Chisel points should not be used.

Combination Seedbed Conditioners -- Set to cut 3 to 4 inches deep and operate at a speed of at least 5 mph. These implements are defined as three or more tillage devices combined and used as a single tool. For example, 2 to 3 rows of field cultivator C- or S- shaped shanks with an effective sweep, spacing of 6 to 9 inches (staggered so that no soil is left unturned), followed by a spike-tooth or flextine harrow, followed by a ground-driven reel or basket. Trilin 5 can be incorporated with one pass when using combination seedbed conditioners when soil conditions allow for optimum mixing of soil. Soil conditions such as excessive trash, roughness, cloddiness, moisture extremes or high clay content which prevent optimum soil mixing action will require two incorporations.

Rolling Cultivator -- Set to cut 2 to 4 inches deep and operate at 6 to 8 mph. Rolling cultivators are adequate for use on coarse and medium texture soils only, except when used in sugarcane where the rolling cultivator may be used on fine textures soils.

Bed Conditioner (Do-All) -- Set to cut 2 to 4 inches deep and operate at 4 to 6 mph. The do-all is adequate for use on coarse and medium textures soils only. When using the do-all in bedded culture, only one incorporation passes is required. However, two passes with a do-all are required in flat planted culture.

Mulch Treader (other similar disc-type implements)

Set to cut 3 to 4 inches deep and operate at 5 to 8 mph.

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

Other equipment, including the flexible tine-tooth harrow (Flextine Melroe), is also recommended but only for the special programs for which it is specified in this label.

#### CULTIVATION AFTER PLANTING

Soil treated Trilin 5 may be shallow cultivated without reducing the product's weed control activity. Do not cultivate desper than the treated soil since this may bring un-treated soil to the surface, and poor weed control may result.

# FALL APPLICATION

General: (Areas receiving more than 20'' average annual rainfall) -- See specific crop recommendations. For all crops for which there are no specific fall application instructions and for which Trilin 5 is recommended as a preemergence application, use the rates listed for spring applications. Do not apply Trilin 5 in the fall for sugarbeets, potatoes, and direct-seeded tomatoes.

In most states apply and incorporate Trilin 5 any time between October 15 and December 31. In Minnesota, Montana, North and South Dakota, and California, apply and incorporate anytime between September 1 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground knock beds down to desired height before planting, moving some treated soil from beds into furrows. Where soil is left over winter, be careful not to turn up untreated soil during spring bedding operations.

Destroy established weeds during seedbed preparation. If weeds become established in furrows

aue to uncovering of untreated soil during bedding, destroy these weeds before planting. Do not apply in the fall to soils which are wet, are subject to prolonged periods of flooding or where rice was grown the previous year.

# **CROP RECOMMENDATIONS**

These recommendations are given as the broadcast rates of Trilin 5 per acre. For band applications, decrease the amount in proportion to the amount of surface treated per acre. Apply any time after January 1 when the soil can be worked and is suitable for good incorporation. Trilin 5 can be applied in the fall -- see previous paragraph and specific crops for recommendations. Where a rate range is shown, use the lower rate for coarse soils or soils with lower organic matter. Trilin 5 should not be used on soils containing more than 10% organic matter.

#### COTTON TRILIN 5 ALONE

Trilin 5 can be applied and incorporated before or at planting, immediately after planting, and from four true leaf stage to layby.

# **COTTON -- PREEMERGENCE**

Broadcast Rates Per Acre

Soil Texture	Areas receiving less than 20'' average annual rainfall* (pints)	Area: .eceiving greater than 20'' average annual rainfall* (pints)
Coarse	0.8	0.8
Medium	1.0 - 1.2	1.2
Fine	1.2	1.6

\*Use 1.2 pints per acre on coarse and medium soils and 1.6 pints on fine soils with 2-5% organic matter. Use 1.6 to 2 pints on all soils with 5-10% organic matter.

# Incorporation with Bedding Implements

Bedding implements (listers and hippers) may be used to incorporate Trilin 5 into the soil for weed control in cotton.

Since bedding equipment does not provide thorough incorporation under all conditions, it is important to closely follow the directions below to optimize weed control performance. Weed control resulting from single pass incorporation with bedding implements will be reduced compared to conventional double pass incorporation. Apply the amount of Trilin 5 recommended in the label.

Soil Preparation -- See general soil preparation.

Bedder Use Directions -- Either a lister or disc bedder maybe used. Operate the bedder in the manner recommended by the equipment manufacturer in order to bed to the desired height. A ripper shank, sweep or chisel shank should be mounted on the bedder behind the spray nozzles and ahead of the bedder tool to help distribute Trilin 5 in the center of the bed. The use of bed tillage equipment such as rolling cultivators, P.T.O. driven rod weeders or bed conditioners after the bedding operation will provide additional mixing of the soil.

Weather conditions, cultural practices, bed tillage and planting procedures will determine location of the Trilin 5 in the soil. Weed control obtained will be dependent upon location of the Trilin 5 at the time of planting.

If Trilin 5 is moved during bed tillage or planting, a band application of Trilin 5 at planting or a postemergence application of Trilin 5 may be required to ensure good weed control.

Precautions Do not incorporate with the bedder if the soil is too wet for good mixing.

#### COTTON -- POSTPLANT

When incorporating Trilin 5 after planting (postplant), be careful not to disturb the seed.

#### COTTON -- POSTEMERGENCE -- Directions for Use

Trilin 5 can be used as a post-emergence soil incorporated application in cotton. Trilin 5 may be applied after the final bed preparation any time from the four true leaf stage up to layby but not less than 90 days before harvest.

**Application Directions** 

Trilin 5 may be applied to cotton from the four true leaf stage as either a broadcast application or as a post directed spray. Drop nozzles should be used if cotton foliage prevents uniform coverage of the soil surface. Refer to Trilin 5 label for ground and aerial application directions.

# **Application Rates**

Apply Trilin 5 to cotton at the following broadcast rates per acre:

Soil Texture	Trilin 5 (pints)
Coarse	0.6 - 0.8
Medium	0.8 - 1.2
Fine	1.2 - 1.6

#### **Incorporation** Directions

Final beds should be established before the Trilin 5 application is made. The soil surface should be free of existing weeds and excessive trash or clods. Trilin 5 should be incorporated within 24

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hours following application and may be accomplished in one pass with a sweep type of a rolling cultivator. The sweep type cultivator should have 3 to 5 sweeps per row middle and be operated at 6 to 8 mph. Set sweeps to provide maximum soil mixture and to insure movement of treated soil into the crop row. One pass with the sweep cultivator properly set will provide adequate soil incorporation. The rolling cultivator should be set to provide maximum soil mixing and to insure movement of treated soil into the crop row. The rolling cultivator should be operated at 6 to 8 mph. Care should be taken to insure that middle sweeps do not expose untreated soil. One pass with the rolling cultivator properly set will provide adequate incorporation.

# Rotational Crops -

Wheat or barley can be planted in fall following this application at recommended rates.

#### **Special Precautions**

Do not apply to cotton before the four true leaf stage or crop injury may result. Soil treated with Trilin 5 may be shallow cultivated, rotary hoed, or hand hoed without reducing the weed control activity of the product. Do not cultivate deeper than the treated layer of soil (1 to 2 inches) since this may bring untreated soil to the surface and poor weed control may result.

# **COTTON -- FALL APPLICATION**

Apply and incorporate Trilin 5 any time between October 15 and December 31. The ground may be left flat or bedded-up over the winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from beds into furrows. Where soil is left flat over winter, be careful not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during bedding, destroy these weeds before planting. In the fall, do not apply Trilin 5 to soils which are wet or subject to prolonged periods of flooding.

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

In Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, bootheel North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee and Texas, apply and incorporate at a broadcast rate of 1.6 pints per acre on coarse and medium and 2 pints on fine soils.

In Arizona, California and Nevada, apply and incorporate Trilin 5 at a broadcast rate of 1.2 pints per acre on coarse soils, 1.6 pints on medium soils and 2 pints on fine soils. For cotton grown in other states, apply and incorporate at a broadcast rate of 0.8 pints per acre on coarse soils, 1.2 pints on medium soils, 1.6 pints on fine soils, 1.2 pints on coarse soils with 2-5% organic matter and 1.6 to 2 pints on soils with 5-10% organic matter.

# **COTTON – SPECIAL USE DIRECTIONS**

COTTON -- FALL PANICUM

Apply and incorporate Trilin 5 at the broadcast rate of 1.6 pints per acre on both coarse and medium soils.

# COTTON -- RHIZOME JOHNSONGRASS

In all cotton-producing states except Arizona and California, you can obtain commercially

acceptable control of rhizome johnsongrass with a double rate program which you apply for 2 consecutive years in accordance with the following directions.

#### Soil Precautions

Proper preparation of the soil before application is very important for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the top of the soil. Then follow with a disc two times before application to cut the rhizomes into small (2 to 3 inch) pieces. This should also destroy any emerged johnsongrass.

#### Application

Choose the one application program that best fits your cultural practices:

Spring Application -- Apply Trilin 5 any time before planting in the spring for 2 years in a row. Use a broadcast rate of 1.6 pints per acre on coarse soils, 2.4 pints on medium soils and 3.2 pints on fine soils.

#### OR

Fall Application -- Apply Trilin 5 between October 15 and December 31 for 2 years in a row at the same rates as a spring application for the control of rhizome johnsongrass.

#### Incorporation

Deep incorporation is essential for good rhizome johnsongrass control. Incorporate Trilin 5 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

Some johnsongrass plants will escape. Timely cultivations during the crop season to remove escaped plants are necessary to obtain commercially acceptable control. You cannot obtain commercially acceptable control with only 1 year of double rate use.

#### Crop Rotation

In the season following a double rate treatment, plant only rice and those crops for which Trilin 5 can be applied as a preplant treatment or injury may result.

#### COTTON -- PIGWEED AND SEEDLING JOHNSONGRASS CONTROL

In Alabama, Arkansas, Florida, Georgia, Louisiana, Missisippi, southeastern Missouri, North Carolina, South Carolina, Tennessee, and southern Virginia, Trilin 5 may be applied preplant at a broadcast rate of 0.8 to 1.2 pints per acre on coarse soils, 1.2 to 1.6 pints on medium soils and 1.6 pints on fine soils. In the state of Louisiana, 2.4 pints per acre are recommended on fine soils.

# COTTON -- ADDITIONAL WEEDS AND GRASS CONTROL (Texas Gulf Coast)

In the Texas Gulf Coast counties of Brazoria, Calhoun, Chambes, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, Trilin 5 may be applied up to 2 weeks before planting at a broadcast rate of 1.2 pints per acre on coarse soils,

1.6 pints on medium soils and 2.4 pints on fine soils.

# COTTON PRECAUTIONS

Cotton should be planted after early season adverse weather conditions have passed, especially when using higher rate programs. Cool, wet weather early in the growth cycle causes additional stress to the cotton plant. This may result in reduced stands, delayed maturity and reduced yields.

# **COTTON -- TANK MIXES AND OVERLAYS**

Follow recommended soil preparation and incorporation procedures for Trilin 5.

COTTON -- Trilin 5/CAPAROL TANK MIX for Cotton Grown in California, Arizona, New Mexico and West Texas

The Trilin 5/Caparol will control certain grass and broadleaf weeds listed for Trilin 5 alone plus the following weeds:

Smartweed Prickly sida (Teaweed) Annual morningglory Ragweed Groundcherry (annual) Mustard Malva Wild Oat

The tank mix also controls shallow germinating seedlings of cocklebur and coffeeweed.

Broadcast Rates Per Acre			
Soil Texture	Trilin 5 (pints)	Caparol 80W (pounds)	
Coarse	0.8	2	
Medium	1.0 to 1.2	2.5	
Fine	1.6	2.5	

\*Do not use on sands and loam sands. For band applications use proportionately less.

#### Mixing Directions

Carefully follow the procedures on the Caparol 80W label for making a slurry and adding it to a partially filled tank of water. After the Caparol is thoroughly mixed with the partially filled tank of water, add the Trilin 5 and continue filling. Agitate continuously during the filling and spraying operation.

Avoid leaving the spray mixture in the tank without constant agitation. If bypass agitation is used, the bypass line should stop at the bottom of the tank to minimize foaming.

# **Additional Precautions**

The combination of Trilin 5/Caparol should not be used 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.

# **Crop Rotations**

Cabbage, okra, onions and peas may be planted in the fall after a spring application of Trilin 5 plus Caparol. Winter barley, winter rye and winter wheat can be planted in the fall also, if they are plowed down and not used for food or feed. Refer to the Caparol label for directions, cautions and precautions.

COTTON -- Trilin 5/COTORAN TANK MIX (except in Arizona and California) Follow recommended soil preparation and incorporation procedures for Trilin 5.

The Trilin 5/Cotoran tank mix effectively controls all the annual grasses and broadleaf weeds listed for Trilin 5 alone plus these additional weeds.

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

#### Broadcast Rates Per Acre

Soil Texture	TRILIN 5 (pints)	Cotoran 80W (pounds)
Coarse	0.8	1.25
Medium	1.2	2
Fine	1.6	2.5

# Mixing Directions

Carefully follow the procedures on the Cotoran label for making a Cotoran slurry and adding it to a partially filled tank of water. After the Cotoran is thoroughly mixed with the partially filled tank of water, add the Trilin 5 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, the bypass line should stop at the bottom of the tank to minimize foaming. Apply in 15 - 40 gallons of water per acre.

# Additional Precautions

Do not plant crops other than cotton on the treated land within 6 months after the application of Trilin 5 plus Cotoran, or crop injury may result. Do not feed foliage from treated cotton plants or gin trash to livestock. Do not mix Trilin 5 plus Cotoran with liquid fertilizer.

#### West Texas Only

Do not use the tank mix of Trilin 5 plus Cotoran on sandy, loamy sand or fine sandy loam soils. Do not use on cotton planted in furrows.

#### Arkansas, Louisiana, and Mississippi Only

Use 1 pound Cotoran 80W in tank mix with Trilin 5 on sandy loam soils low in organic matter.

#### 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.

# COTTON -- TRILIN 5 PREPLANT FOLLOWED BY KARMEX OVERLAY

For cotton grown east of the Mississippi River plus Arkansas, Southeastern Missouri, Louisiana and Eastern Texas, incorporate before planting. Then follow with a preemergence application of Karmex. This will effectively control all the weeds controlled by Trilin 5 alone plus these additional weeds:

Ragweed Annual groundcherry Dogfennel Pennycress Annual morningglory Shepherdspurse Velvetgrass Wild lettuce Wild mustard

# Broadcast Rate Per Acre<br/>Soil TextureTRILIN 5<br/>(pints)KARMEX 80W<br/>(pounds)Coarse0.81/3Medium1.22/3Fine1.61

#### Additional Precautions

Do not use Karmex on soils with less than 1% organic matter as crop injury may result. Do not allow livestock to graze on cotton treated with Karmex. Consult the Karmex label for additional instructions, cautions and precautions.

# SOYBEAN - TRILIN 5 ALONE

# SOYBEAN -- PREEMERGENCE

Follow recommended soil preparation, application, and incorporation procedures for Trilin 5.

Broadcast Rates Per Acre

TRILIN 5 (pints)
0.8
1.2
1.6

\*Use 1.2 pints per acre on coarse and medium textured soils and 1.6 pints on fine soils with 2 - 5% organic matter. Use 1.6 - 2 pints on all soils with 5 - 10% organic matter.

# SOYBEAN -- FALL APPLICATION

Apply and incorporate anytime between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soils if left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting. Do not fall apply to soils which are wet, are subject to prolonged periods of flooding, or where rice was grown the previous year.

For soybeans grown in Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri Bootheel, North Carolina, Oklahoma, South Carolina, Tennessee and Texas, apply and incorporate at a broadcast rate of 1.6 pints per acre on coarse and medium soils and 2 pints on fine soils.

For soybeans grown in states other than those listed above, apply and incorporate at a broadcast rate of 0.8 pints per acre on coarse soils, 1.2 pints on medium soils, 1.6 pints on fine soils, 1.2 pints on coarse soils with 2 - 5% organic matter and 1.6 to 2 pints on soils with 5 - 10% organic matter.

# SOYBEAN -- SPECIAL USE DIRECTIONS SOYBEAN -- FALL PANICUM

Apply Trilin 5 at the broadcast rate of 1.6 pints per acre on both coarse and medium soils.

# SOYBEAN -- PIGWEED AND SEEDLING JOHNSONGRASS

In Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, southeastern Missouri, North Carolina, Oklahoma, South Carolina, Tennessee and southern Virginia, Trilin 5 may be applied at a broadcast rate of 0.8 to 1.2 pints per acre on coarse soils, 1.2 to 1.6 pints on medium soils and 1.6 pints on fine soils. Exception: in the state of Louisiana, 2.4 pints per acre are recommended on fine soils.

# SOYBEAN -- ADDITIONAL WEED AND GRASS CONTROL (Texas Gulf Coast)

In the Texas Gulf Coast counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, Trilin 5 may be applied up to 2 weeks before planting at a broadcast rate of 1.2 pints per acre on coarse soils, 1.6 pints on medium soils and 2.4 pints on fine soils.

# SOYBEAN -- CHARCOAL SOILS in Arkansas, Louisiana and Mississippi

Newly cleared land often contains high organic matter (5 - 10%) and charcoal from burning debris. This charcoal and/or organic matter tends to bind Trilin 5 and reduce its weed control activity. Under these conditions, higher rates of Trilin 5 are necessary for weed control. Increased rates, however, can cause crop injury if charcoal or organic matter is not present to bind some of the Trilin 5. In the burn row a high level of charcoal is present; consequently, poor weed control may result even with an increased rate of Trilin 5.

Apply at the broadcast rate of 1.6 to 2 pints per acre on coarse soils, 2 pints on medium soils and 2.4 pints on fine textured soils. Follow recommended soil preparation, application and incorporation procedures for Trilin 5.

SOYBEAN -- NED RICE in Arkansas, Louisiana, Mississippi and Texas Only You can obtain suppression or partial control of red rice when you apply Trilin 5 at the following recommended rates. Follow recommended soil preparation and incorporation procedures for Trilin 5.

Apply and incorporate in the spring before planting.

Broadcast Rates Per Acre

	Trilin 5	
Soil Texture	Application Year 1 (pints)	Application Year 2 (pints)
Coarse	1.6	0.8
Medium	2.4	1.2
Fine	3.2	1.6
Coarse soils with 2 to 5% organic matter	2.4	1.2

Soils with 5 to 10%organic matter3.21.6 - 2

If a combination of high organic matter (5 - 10%) and charcoal are present in the soil, apply Trilin 5 the second year at the following rates for charcoal soils in Arkansas, Louisiana and Mississippi:

Soil Texture	Trilin 5 (pints)
Coarse	 1.2 - 2
Medium	2
Fine	2.4

For more information on charcoal soils (see above).

#### Crop Rotation

The program for red rice control in soybeans is a 2-year program. Use the rates listed for first year application and plant soybeans. The second year use the normal rates listed for your soil type and charcoal level and plant only those crops for which Trilin 5 has been registered as a preplant treatment, or crop injury may result. Do not plant rice the second year. Rice may be planted the third year.

SOYBEAN -- RHIZOME JOHNSONGRASS (Eastern United States and the State of Texas) You can obtain commercially acceptable control of rhizome johnsongrass with a double rate program applied for 2 consecutive years in accordance with the following directions.

#### Soil Preparation

Proper preparation of the soil before application is very important for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the top of the soil. Then follow with a disc two times before application to cut the rhizomes into small (2 to 3 inch) pieces and to destroy any emerged johnsongrass.

#### Application

Choose the one application program that best fits your cultural practices:

Spring Application -- Apply Trilin 5 anytime in the spring before planting for 2 years in a row. Use a broadcast rate of 1.6 pints per acre on coarse soils, 2.4 pints on medium soils, 3.2 pints on fine soils, 2.4 pints on coarse soils with 2 - 5% organic matter and 3.2 pints on soils with 5 - 10% organic matter.

# OR

Fall Application -- Apply Trilin 5 between October 15 and December 31 for 2 years in a row at the same rates as a spring application for the control of rhizome johnsongrass

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# OR

Split Application -- Apply Trilin 5 at the same rate in both the spring and fall for 2 years in a row using the rates in the following table.

Broadcast Rates Per Acre

Soil Texture	Spring and Fall (pints)
Coarse	0.8
Medium	1.2
Fine	1.6
Coarse soils with 2 - 5% organic matter	1.2
Soils with 5 - 10% organic matter	1.6

# Incorporation

Deep incorporation is essential for good rhizome johnsongrass control. IncorporateTrilin 5 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

Some johnsongrass plants will escape. Timely cultivations during the crop season to remove escaped plants are necessary to obtain commercially acceptable control.

# **Crop** Rotation

In the season following a double rate treatment, plant only rice and those crops for which Trilin 5 can be applied as a preplant treatment or injury may result.

# SOYBEAN -- RHIZOME JOHNSONGRASS

Trilin 5/Sencor or Trilin 5/Lexone Tank Mix

Trilin 5 may be used with Sencor or Lexone for rhizome johnsongrass control and for the control of those weeds listed for Trilin 5 alone. For the additional weeds controlled by Sencor or Lexone in tank mix, (see below). Follow procedures for soil preparation, incorporation, and cultivation recommended in the Soybean -- Rhizome johnsongrass section.

Apply Trilin 5 / Sencor for Lexone up to two weeks before planting for two consecutive years at the following broadcast rates per acre:

Lexone 50WP / 4L	Lexone (Dry Flowable)
or	or

Soil Texture	Trilin 5 (pints)	Sencor 50WP / 4 (pounds / pints)	Sencor (Dry Flowable) (lbs.)
Coarse*	1.6	1/2	1/3
Medium	2.4	3/4	1/2 ·
Fine	3.2	1	2/3

\*Do not use on coarse soils with less than 1% organic matter. Read and follow all additional precautions listed for the Trilin 5 / Sencor or Lexone tank mix (see below).

# SOYBEAN -- WILD CANE (Shattercane)

Follow recommended soil preparation and application procedures for Trilin 5.

Wild calle (shattercane) can germinate throughout the growing season and from greater soil depth than most other weed seeds. Commercially acceptable control of wild cane can be obtained with the following increased rates of Trilin 5. Apply at the broadcast rate of 0.8 pints per acre on a coarse soil, 1.6 pints on a medium soil and 2 pints on a fine textured soil.

#### Incorporation

Deep incorporation is essential for good wild cane control. Incorporate Trilin 5 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

Cultivations during the crop season will also contribute to control.

#### SOYBEAN PRECAUTIONS

Soybeans should be planted after early season adverse weather conditions have passed, especially when using higher rate program. Cool, wet weather early in the growth cycle causes additional stress to the soybean plant. This may result in reduced stands, delayed maturity and reduced yields.

# SOYBEAN -- TANK MIXES AND OVERLAYS

SOYBEAN -- Trilin 5/SENCOR OR Trilin 5/LEXONE TANK MIX The Trilin 5/Sencor or Trilin 5/Lexone tank mix effectively controls the annual grasses and broadleaf weeds controlled by Trilin 5 plus these additional weeds: Jimsonweed Mallow, Venice (Flower-of-an-hour) Mustard, wild Prickly sida Ragweed, common Sesbania, hemp Smartweed, Pennsylvania Velvetleaf Control of cocklebur, mc.ningglory and giant ragweed (horseweed) may be erratic. Control may be improved with timely cultivation. Where cocklebur is a serious problem, an overlay of Sencor or Lexone may be preferred to the Trilin 5/Sencor or Lexone tank mix.

Follow recommended procedures for soil preparation, incorporation, and cultivation of Trilin 5. Mix according to instructions under general mixing and application directions. The tank mix can be applied from 2 weeks before planting up to planting.

Broadcast Rates Per Acre

		Lexone 50WP/4L or	Lexone (dry flowable) or
Soil Texture	Trilin 5 pints)	Sencor 50WP/4 (pounds/pints)	Sencor (dry flowable) (lbs.)
Coarse*	0.8	1/2	1/3
Medium	1.2	3/4	1/2
Fine	1.6	1	2/3

\*Do not use Sencor/Lexone on coarse soils with less than 1% organic matter.

# Additional Precautions -

Do not plant any crop other than soybeans within 4 months after treatment. Over application, uneven application, or improper soil incorporation may result in crop injury, herbicide residue, or erratic weed control. Additional stress factors are seedling disease, cold weather, deep planting, excessive moisture, soil pH over 7.5, high salt concentration, or drought. Any of these may weaken crop seedlings and increase possibility of damage from the tank mix. These additional factors may also delay crop development or reduce yields when Sencor or Lexone is applied. Observe all cautions and limitations on the Sencor and Lexone labels. Do not use the foliage from soybeans treated with the tank mix for feed or forage.

# SOYBEAN -- Trilin 5 PREPLANT FOLLOWED BY SENCOR OR LEXONE AS AN OVERLAY

Apply Trilin 5 as a preplant incorporated herbicide. As a separate operation, make a single application of Sencor or Lexone as either a band or broadcast spray during planting or as a separate operation after planting, but before the soybeans emerge. Do not spray Sencor or Lexone over the top of emerged soybeans, or crop injury may result.

# Use Directions

Follow directions on the Sencor or Lexone labels for specific instructions regarding each herbicide.

Broadcast Rates Per Acre

Postplant/Preemergence Lexone 50WP/4L\* Lexone (dry flowable)

Soil Texture	Trilin 5 (pints)	Sencor 50WP/4 or (pounds/pints)	Sencor (dry flowable) (lbs.)
Coarse**	0.8	3/4 or 3/4 - 1	1/2 or 1/2 - 1/3
Medium	1.2	3/4 - 1 or 3/4 - 1.5	1/2 - 2/3 or 1/2 - 1
Fine	1.6	1 or 1 - 1 3/4	2/3 or 2/3 - 11/6

\*Lexone rates are given first, followed by Sencor rates.

\*\*Do not apply Lexone to sand or soils with less than 1/2% organic matter. Do not apply Sencor to coarse soils (sandy loam and loamy sand) containing less than 2% organic matter.

# Additional Sencor and Lexone Precautions

Do not use Lexone or Sencor on Tracy, Semmes, Altona, Vansoy or Coker 102 soybeans. These varieties are sensitive to Lexone or Sencor and crop injury may result. Seed must be planted at least 11/2 inches but not more than 2 inches below the soil surface before a Sencor or Lexone application. Do not apply Sencor or Lexone at these rates more than once per season. Do not replant areas treated with Sencor or Lexone with any crop other than soybeans within 4 months after treatment. Injury to soybeans may occur if you use Lexone or Sencor on soils having a calcareous surface or pH of 7.5 or higher or if you use them in conjunction with soil-applied organic phosphate pesticides. Do not use the foliage from treated soybeans for feed or forage.

# ALFALFA - ESTABLISHED

In areas receiving less than 20<sup>''</sup> average annual rainfall per year, apply Trilin 5 in established alfalfa stands at a broadcast rate of 1.2 pints per acre on coarse soils and 1.6 pints on medium and fine soils. Use incorporation equipment that will insure thorough soil mixing with minimum damage to the established alfalfa.

#### ASPARAGUS – ESTABLISHED

Follow recommended soil preparation, application and incorporation procedures for Trilin 5. Trilin 5 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 ferning begins. Trilin 5 will suppress volunteer seedling asparagus and field bindweed if you use the following recommended rates and application schedules.

Broadcast Rates Per Acre

	Split App	Trilin 5 Split Application			Single Application	
	Before	After		Before	After	
	+			or		
Soil Texture	Harvest	Harvest		Harvest	Harvest	

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	(pints	)	(pints)				
Coarse	0.8	+	0.8		1.6	or	1.6
Medium	1.2	+	1.2		2.4	or	2.4
Fine	1.6	+	1.6		3.2	or	3.2

In any single calendar year, the maximum Trilin 5 to apply is 1.6 pints per acre on coarse soils; 2.4 pints on medium soils; and 3.2 pints on fine soils.

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

CARROT

CASTOR BEAN

CELERY

Direct seeded and transplant in areas receiving less than 20" average annual rainfall COLE CROPS -- TRANSPLANT

Apply and incorporate prior to transplanting only. (Broccoli, Brussel Sprout, Cabbage and Cauliflower). See next section for direct seeded.

OKRA

**PEPPER -- TRANSPLANT** 

Apply and incorporate prior to transplanting only.

SOUTHERN PEA

Apply and incorporate before planting, at planting, or immediately after planting, unless otherwise indicated.

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Broadcast Rates Per Acre

		1 11111 5
Soil Texture	Areas receiving less than 20' average annual rainfall (pints)*	Areas receiving greater than 20'' average annual rainfall (pints)*
Coarse	0.8	0.8
Medium	1.0 - 1.2	1.2
Fine	1.2	1.6

\*Use 1.2 pints per acre on coarse and medium textured soils and 1.6 pints on fine soils with 2 - 5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

COLE CROPS -- DIRECT SEEDED (Broccoli, Brussel Sprout, Cabbage, and Cauliflower) See above section for transplant.

For direct-seeded cole crops, apply and incorporate Trilin 5 before planting at a broadcast rate

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of 0.8 pints per acre on coarse and medium soils and 1.2 pints on fine soils and soils with 2-5% organic matter. Direct-seeded cole crops have exhibited marginal tolerance to recommended rates of Trilin 5. Stunting or reduced stands may occur.

CUCURBITS -- POSTPLANT EMERGED (Cantaloupe, Cucumber, and Watermelon) Western United States including Texas

Apply 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

		Lim J
Soil Texture	Areas receiving less than 20" average annual rainfall (pints)*	Areas receiving greater than 20'' average annual rainfall (pints)*
Coarse	0.8	0.8
Medium	1.0 - 1.2	1.2
Fine	1.2	1.6

\*Use 1.2 pints on coarse and medium textured soils and 1.6 pints on fine soils with 2-5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

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

# DRY BEAN - Trilin 5 ALONE

Apply and incorporate before  $k^{2}$  anting using the following rates:

Broadcast Rates Per Acre

	·	Trilin 5
Soil Texture	Areas receiving less than 20'' average annual rainfall (pints)*	Areas receiving greater than 20' average annual rainfall (pints)*
Coarse	0.8	0.8
Medium	1.0 - 1.2	1.2
Fine	1.2	1.6

\*Use 1.2 pints per acre on coarse and medium textured soils and 1.6 pints on fine soils with 2

- 5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

# DRY BEAN -- Trilin 5/EPTAM TANK MIX

The Trilin 5/Eptam tank mix effectively controls all the following weeds in addition to those weeds listed for Trilin 5: Henbit (Spring applications) Nightshade, black Nightshade, hairy Nutsedge Oat, wild Ragweed, common Smartweed, Pennsylvania Velvetleaf (Buttonweed) Follow recommended soil preparation and incorporation procedures for Trilin 5. The tank mix

should be applied from 2 days before planting up to planting. Incorporate immediately after application.

Broadcast Rates Per Acre

Soil Texture	Areas receiving less than 20'' average annual rainfall* (pints)	Areas receiving greater than 20'' average annual rainfall* (pints)	Eptam 7E (pints)
Coarse	0.8	0.6	2.5 - 3.5**
Medium	1 - 1.2	1.2	2.5 - 3.5
Fine	1.2	1.6	2.5 - 3.5

\*Use 1.2 pints per acre on coarse and medium textured soils and 1.6 pints on fine soils with 2 - 5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

**\*\***Use Eptam 7E at a rate of 2.5 pints per acre to control annual grasses, 3.5 pints to control nutsedge and additional broadleaf weeds.

#### Precaution

Read the Eptam label before using. Observe all cautions and limitations of all products used in mixtures. The combination of Trilin 5 and Eptam should not be used on soybeans, black-eyed peas (beans), lima beans and other flat podded beans, except Romano. Do not use the foliage from a crop treated with this tank mix for feed or for grazing.

# DRY BEAN -- FALL APPLICATION For Dry Bean Grown in Idaho, Oregon, and Washington.

Apply and incorporate Trilin 5 any time between October 15 and December 31 at a broadcast rate of 0.8 pints per acre on coarse soils, 1 to 1.2 pints on medium soils and 1.2 pints on fine

soils. Destroy established weeds during seedbed preparation.

# FOR THE FOLLOWING CROP GROUPING, USE THE RATE LISTED BELOW

**BEANS** – (Guar and Mungbean), GREENS – Turnip greens grown for processing, Collard, Kale and Mustard greens.

MUSTARD -- Grown for seed or processing for food in Minnesota, Montana and North Dakota. Apply and incorporate Trilin 5 before planting at 0.8 pint per acre on coarse soils and 1.2 pints on medium and fine soils.

**BEANS** -- (Lima Bean and Snap Bean) -- Apply and incorporate before planting at a broadcast rate of 0.8 pint per acre on coarse and medium soils and 1.2 pints on fine soils.

**CORN (Field Corn) and GRAIN SORGHUM (Milo)** – Apply Trilin 5 to field corn or grain sorghum (8 inches or taller) as an over-the-top or directed spray to effectively control weeds listed for Trilin 5.

### Soil Preparation

Cultivate before a Trilin 5 application to insure loose, friable soil, to remove established weeds and to cover the base of plants with soil.

**Application Directions** 

Trilin 5 should be applied and incorporated at the recommended rates for the soil texture when the crop is well established (8 inches or taller). Trilin 5 may be applied either as an over-the-top spray or as a directed spray. Drop nozzles should be  $u \sim d$  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

Soil Texture	Trilin 5 (pints		
Coarse	0.6 - 0.8*		
Medium	0.8 - 1.2		
Fine	1.2 - 1.6		

Use the lower rates when you anticipate light weed pressure and the higher rates when you anticipate heavy weed pressure.

# \*Corn Only

Apply 0.8 to 1.2 pints per acre in Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia to control fall panicum and Texas panicum.

CORN/GRAIN SORGHUM -- Trilin 5 FOR SHATTERCANE CONTROLAND Trilin 5/ATRAZINE TANK MIX FOR ADDITIONAL WEED CONTROL

Trilin 5 applied as an over-the-top spray or as a directed spray in field corn/grain sorghum will control shattercane in addition to those other weeds listed on the label for Trilin 5. Use rates listed above.

Trilin 5 can be tank mixed with atrazine for additional weed control in field corn/grain sorghum.

Broadcast Rates Per Acre

Soil Texture	Trilin 5 (pints)	Atrazine 41 (pints)*
Coarse (sandy loam only)	0.6 - 0.8	2.4
Medium	0.8 - 1.2	4.75
Fine	1.2 - 1.6	6.0

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

Apply and incorporate the Trilin 5/Atrazine tank mix as directed on the Trilin 5 label for field corn and grain sorghum.

Check the Atrazine label for additional directions, cautions, and precautions prior to use.

Precaution

Do not apply Trilin 5 to corn grown for seed. Do not apply to corn or sorghum as a preplant or preemergence treatment or crop injury may occur.

HOPS -- Apply and incorporate Trilin 5 while the crop is dormant. Use a broadcast rate of 0.8 pints per acre on coarse soils, 1 to 1.2 pints on medium soils and 1.2 pints on fine soils and soils with 2 - 10% organic matter.

**PEA** -- (Dry and Engish) -- Trilin 5 Alone -- Apply and incorporate before planting at a rate of 0.8 pint per acre on coarse and medium soils and 1.2 pints on fine soils.

**PEA** -- Trilin 5/Far-Go Tank Mix for Pea in Idaho, Oregon and Washington --The tank mix combination of Trilin 5 plus Far-Go will provide control of wild oat in addition to other annual grasses and broadleaf weeds controlled by Trilin 5.

Application Rates

Broadcast 0.6 pint of Trilin 5 per acre on coarse and medium soils, 0.8 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 before planting. Follow recommended incorportion procedures for Trilin 5.

# Precaution

Do not apply to lentils. Leaf crinkling and delayed maturity of peas may occur, particularly on calyx points in the northwest; but this is usually more than offset by a reduction of wild oat. Do not use foliage from treated peas for feed or forage. Refer to the cautions, precautions, and directions on the Far-Go label.

**PEA** -- Fall Application to Dry Pea and English Pea in Idaho, Oregon and Washington -- Apply and incorporate anytime between October 15 and December 31 at a broadcast rate of 0.8 pint per acre on coarse soils, 1 to 1.2 pints on medium soils and 1.2 pints on fine soils. Destroy established weeds during seedbed preparation. Do not apply in the fall to soils which are wet or are subject to prolonged period of flooding.

**PEANUT** -- panish Peanut in Texas and Oklahoma) -- Apply and incorporate Trilin 5 before planting, at planting or immediately after planting at a broadcast rate of 0.8 pint per acre on coarse soils. When incorporating after planting, take care not to disturb the seed.

**POTATO** -- (All states except Maine) -- Apply and incorporate Trilin 5 after planting, before emergence, or immediately following dragoff or after the potato plants have fully emerged.

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Broadcast Rates Per Acre

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Soil Texture	Areas receiving less than 20'' average annual rainfall* (pints)	Areas receiving greater than 20" average annual rainfall* (pints)
Coarse	0.8	0.8
Medium	1.0 - 1.2	1.2
Fine	1.2	1.6

\*Use 1.2 pints per acre on coarse and medium soils with 2 - 5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

Set incorporation equipment so that the bed and furrow will be uniformly covered with a layer of treated soil. If the layer of treated soils is not uniform and the herbicide is concentrated over the bed, potato emergence may be retarded, and stem brittleness can occur. When applying and incorporating Trilin 5 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.

**POTATO** -- Split Application in Idaho, Oregon and Washington -- In all soils, apply and incorporate 0.6 pint of Trilin 5 per acre before planting and 0.6 pint after planting when potato plants have fully emerged. Do not apply to soils containing 2% or more organic matter. Follow

incorporation directions listed above for application to potato after planting.

POTATO -- Trilin 5/Eptam Tank Mix for Potatoes Grown in Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, South Dakota and Texas -- The Trilin 5/Eptam tank mix effectively controls the the following weeds in addition to those weeds controlled by Trilin 5: Henbit (Spring applications) Nightshade, black Nightshade, hairy Nutsedge Oat, wild Ragweed, common Smartweed, Pennsylvania Velvetleaf (Buttonweed)

Follow recommended soil preparation and application procedures for Trilin 5. The tank mix may be applied after planting, but prior to crop emergence. In areas where potatoes are normally dragged off, the tank mix should be applied and incorporated up to or immediately following drag off.

Broadcast Rates Per Acre

	Trili	Trilin 5		
Soil Texture	Areas receiving less than 20'' average annual rainfall* (pints)	Areas receiving greater than 20'' average annual rainfall* (pints)	Eptam 7E (pints)	
Coarse	0.8	0.8	1.75 - 7**	
Medium	0.8 - 1.2	0.8 - 1.2	1.75 - 7	
Fine	0.8 - 1.2	0.8-1.6	1.75 - 7	

\*Use 1.2 pints per acre on coarse and medium soils with 2 - 5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

\*\*Use the higher rate of Eptam 7E for nutsedge control.

#### Precaution

Read the Eptam label before using. Observe cautions and limitations of products used in mixtures. Do not graze or feed forage to livestock from fields treated with Trilin 5/Eptam tank mix.

**POTATO** -- Trilin 5/Eptam Application Before Planting in Washington, Idaho and Oregon --Trilin 5/Eptam may be applied before planting at a broadcast rate of 0.6 pint of Trilin 5 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. Read the Eptam label before using. Observe all cautions and limitations on labeling of all products used in mixtures. Do not use foliage from treated crops for feed or forage.

# SAFFLOWER

Follow recommended soil preparation, application and incorporation procedures for Trilin 5. Apply and incorporate in the spring before planting or in the fall between October 15 and December 31.

Broadcast Rates Per Acre

Soil Texture	Trilin 5			
	Areas receiving less than 20'' average annual rainfall* (pints)	Areas receiving greater than 20" average annual rainfall* (pints)		
Coarse	0.8	0.8		
Medium	1.0 - 1.2	1.0 - 1.2		
Fine	1.2	1.6		

\*Use 1.2 pints per acre on coarse and medium textured soils and 1.6 pints on fine soils with 2 - 5% organic matter. Use 1.6 to 2 pints on all soils with 5 - 10% organic matter.

SAFFLOWER -- FALL APPLICATION in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming

Apply and incorporate Trilin 5 any time between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting. Apply and incorporate at a broadcast rate of 1.2 pints per acre on coarse soils, 1.6 pints on medium soils and 2 pints on fine soils.

Do not apply Trilin 5 in the fall to soils which are wet or are subject to periods of flooding.

# SUGAR BEET

Apply Trilin 5 as a broadcast, overtop spray when plants are between 2 to 6 inches tall at a rate of 0.8 pint per acre on coarse soils and 1 to 1.2 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. Be careful that incorporation machinery does not damage the sugar beet taproot.

Precaution

Exposed beet roots should be covered with soil before an application to reduce the possibility of girdling.

SUGAR BEET -- INCORPORATION WITH TINE-TOOTH HARROW in California, Colorado, Idaho, Montana, Nebraska, Oregon, Texas, Utah, Washington and Wyoming -- A properly operated tine-tooth harrow (Flextine or Melroe) can incorporate Trilin 5 for effective weed control in sugar beet. Operate the tine-tooth harrow 2 times over the field in opposing directions at a speed of 3 to 6 mph .Set the harrow to cut 1 to 2 inches deep. Be careful that the tine-tooth harrow does not damage the sugar beet taproot. Follow recommended application procedures and broadcast rates per acre for sugar beet. (See preceding paragraph).

# SUGARCANE

(Plant Cane)

Apply and incorporate Trilin 5 twice a year at a broadcast rate of 1.6 to 3.2 pints per acre for all soil textures. Make the first application in the fall on firmly packed beds immediately after the seed pieces are planted. Make the second application in the spring before or shortly after the cane emerges. Loosen rain packed beds 2 to 3 inches deep before the spring application. Take care that incorporation machinery does not damage the seed pieces or emerging shoots.

SUGARCANE - POSTPLANT in Hawaii for control of most annual grasses, including guineagrass -- Surface apply Trilin 5 after planting (for plant cane) or after harvesting (for ratoon cane), before weeds and cane emerge. Use a broadcast rate of 4.8 to 6.4 pints per acre for all soil textures. In plant cane, the beds should be formed or rolled before application. In ratoon cane, the crop residue should be removed before application. If large amounts of crop residues are present, Trilin 5 will not be effective. Apply just before anticipated rainfall or sprinkle irrigate immediately after application.

SUGARCANE -- APPLICATIONS UP TO LAYBY FOR PLANT CANE OR RATOON CANE Grown in Louisiana or Texas -- Apply and incorporate Trilin 5 at a broadcast rate of 1.6 to 3.2 pints per acre for all soil textures. Do this in the spring from before or shortly after the cane emerges up to layby. Apply the Trilin 5 after the beds have been shaved or false shaved. Loosen rain-packed beds 2 to <sup>2</sup> inches deep before application. Be careful that incorporation machinery does not damage seed pieces or emerging shoots. You may use a rolling cultivator or bed chopper to incorporate layby applications in sugarcane on all soil textures. Follow normal incorporation directions for the rolling cultivator. Set bed chopper to cut 3 to 4 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary.

SUGARCANE -- ITCHGRASS (RAOULGRASS) CONTROL in Louisiana -- Apply and incorporate on either plant or ratoon cane at a broadcast rate of 3.2 pints per acre for all soil textures. Follow the directions above for sugarcane layby application in Louisiana and Texas.

#### SUNFLOWER -- TRILIN 5 ALONE

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

recommended soil preparation, application and incorporation procedures for Trilin 5.

Broadcast Rates Per Acre

	i riin D		
Soil Texture	Areas receiving less than 20'' average annual rainfall* (pints)	Areas receiving greater than 20" average annual rainfall * (pints)	
Coarse	0.8	0.8	
Medium	1.0 - 1.2	1.2	
Fine	1.2	1.6	

\*Use 1.2 to 1.6 pints per acre on coarse and medium soils with 2 - 5% organic matter and 1.6 pints on all soils with 5 - 10% organic matter.

# TOMATO

For direct-seeded tomato, apply Trilin 5 at blocking or thinning as a directed spray to the soil between rows and beneath the plants, and incorporate. For transplaint tomato, apply and incorporate Trilin 5 preplant, postplant or at lay-by.

Broadcast Rates Per Acre

Soil Texture	Trilin 5			
	Areas receiving less than 20'' average annual rainfall* (pints)	Areas receiving greater than 20'' average annual rainfall* (pints)		
Coarse	0.8	0.8		
Medium	1.0 - 1.2	1.2		
Fine	1.2	1.6		

\*Use 1.2 pints per acre on coarse and medium textured soils and 1.6 pints on fine soils with 2 - 5% organic matter. Use 1.6 pints on all soils with 5 - 10% organic matter.

# FRUIT AND NUT CROPS AND VINEYARDS

For Areas Receiving More Than 20<sup>''</sup> Average Annual Rainfall -- For new planting of vineyards, citrus and pecan trees, apply and incorporate Trilin 5 before planting at a broadcast rate of 0.8 pint per acre on coarse soils, 1.2 pints on medium soils, 1.6 pints on fine soils, 1.2 pints on fine soils with 2 - 5% organic matter and 1.6 pints on soils with 5 - 10% organic matter.

For non-bearing, established plantings of citrus and pecan trees and bearing plantings of grapefruit, lemon, orange, pecan, tangelo, tangerine trees, apply at a broadcast rate of 1.6 to 3.2 pints per acre for all soil textures.

For Areas Receiving Less Than 20<sup>''</sup> Average Annual Rainfall -- For new plantings of almond, apricot, citrus, nectarine, peach, pecan and walnut trees, apply and incorporate before planting at a broadcast rate of 0.8 pint per acre on coarse soils, 1 to 1.2 pints on medium soils, 1.2 pints on fine soils, 1.2 to 1.6 pints on soils with 2 - 5% organic matter and 1.6 pints on soils with 5 - 10% organic matter.

For new planting of vineyards, apply and incorporate before planting at a broadcast rate of 0.8 to 1.2 pints per acre on coarse soils, 1.2 to 2.4 pints on medium soils and 2.4 to 3.2 pints on fine soils or soils with 2 - 10% organic matter. Do not use more than 1.6 pints per acre on heat-treated grape rootings.

For postplant application on bearing or non-bearing, established plantings of vineyards and almond, apricot, grapefruit, lemon, nectarine, orange, peach, plum, prune, tangelo, tangerine and walnut trees, apply at a broadcast rate of 1.6 to 3.2 pints per acre for all soil textures. Do not apply to vineyards within 60 days of harvest.

In established plantings, apply Trilin 5 as a directed spray to the soil and use incorporation methods not injurious to the trees or vines.

FRUIT AND NUT CROPS AND VINEYARDS -- RHIZOME JOHNSONGRASS CONTROL -- For Areas Receiving Less Than 20" Average Annual Rainfall -- You can obtain commercially acceptable control of rhizome johnsongrass with postplant applications in bearing and nonbearing established plantings of vineyards and almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine and walnut trees with a Trilin 5 program when applied for 2 years in a row.

#### Soil Preparation

Work the soil thoroughly to bring the rhizomes nearer the surface.

#### Application

Apply Trilin 5 at a broadcast rate of 1.6 quarts per acre on all soil textures each year for 2 years in a row. Do not apply to vineyards within 60 days of harvest.

#### Incorporation

Incorporate thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary, with the second pass in a different direction from the first.

## Cultivation

Some johnsongrass plants will escape. Timely cultivations are necessary to obtain commercially acceptable control. You cannot obtain commercially acceptable control with only 1 year of Trilin 5 use.

#### Precautions

Do not use the 1.6 quart rate on new plantings, or crop injury may result. Do not interplant orchards or vineyards with other crops. If the treated vineyards and orchards are diverted to

other crop uses, plant only those crops for which Trilin 5 has been registered as a preplant treatment for the next cropping season.

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FRUIT AND NUT CROPS AND VINEYARDS -- BINDWEED CONTROL in California --Trilin 5 can be used for the control of field bindweed in vineyards and for almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine and walnut trees. Apply at a broadcast rate of 3.2 pints per acre on all soil textures. Trilin 5 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 5 prevents bindweed shoots from emerging.

# Land Preparation

Destroy all weeds and grasses with soil tillage before applying. This tillage is necessary to prevent trash from interfering with the operation of the spray blade.

#### Equipment

This operation requires a spray blade capable of running 4 to 6 inches below the surface of the soil. The spray blade should be equipped with nozzles located under the blade and directed so that the spray will be trapped under the soil which is flowing over the blade as it is puiled through the soil. Use a sufficient number of nozzles with spacing that will uniformly apply the Trilin 5 underground in a thin, horizontal layer.

#### Application

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

#### Precaution

Some soils develop cracks as they dry after rainfall or irrigation. Field bindweed may emerge if the cracks extend through the Trilin 5 layer. Prevent or eliminate cracks by shallow discing or other tillage. Avoid deep tillage which disturbs the subsurface layer. Cultivation or tillage also aids the control of germinating seeds.

# CHEMIGATION USE INSTRUCTIONS (Citrus Crops Only)

Apply this product only through sprinkler including solid set and hand moved or drip irrigation systems. Do not apply this product through any other type of irrigation system.

Do not apply this product in an irrigation system connected to a public water supply.

Crop injury, lack of effctiveness or illegal pesticides residue in the crop can 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. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### Irrigation System Requirements:

The system must contain a functional check valve, vacuum relief valve and a low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a func-tional, automatic, quick-closing check valve to prevent the flow of fluid 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 th pesticide injection pump when the water pump motor stops. The irrigation line or wate pump must include a functional pressure switch which will stop the water pump motor 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 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.

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# **Application Instructions:**

Application of Trilin 5 through irrigation systems should be used as a supplemental weed control practice to suppress break through weeds at irrigation points. Do not apply when wind speed favors drift beyond the area intended for treatment, when system connections leak or when emitters do not provide uniform distribution. Before use, remove scale, pesticide residues and other debris from the mix tank and the pump system. Flush system with clean water. Calibration and distribution will bemore accurately achieved by injecting a larger volume of a more dilute solution ovr time, if desired, dilute Trilin 5 with water prior to injection and mix solution sufficiently to assure uniform delivery into the injection system. Sprinkler systems should be calibrated to deliver a volume of 4-50 gallons per hour (gph) per emitter. Drip systems should be set at 0.5-3gph per emitter. Inject Trilin 5 into the system during the last stage of an irrigation cycle. The application interval should be such that at one period of time during the injection the first and last emitters in the system contains Trilin 5 treated water. After application is completed flush equipment with clean water, then continue to irrigate for one and a half to two hours.

#### **Calculation of Use Rate:**

2.

Calculation of use rate is based on wetted area aroun\_ emitters -- NOT on tree acres. Apply Trilin 5 according to the dosages on this label. To determine the correct amount of Trilin 5, use the following formula:

Treated area per each emitter = A
 A = 3.14 x (radius x radius)
 Example: If the average distance from emitter to perimeter of wetted area (measured one inch below soil surface) = 13 inches, then
 A = 3.14 x (13'' x 13'') = 530.7 square inches

The area in square feet wet in each acre = B  $B = A \times \frac{\text{emitters/acre}}{144}$ Example: If there are 300 emitters per acre, then  $B = \frac{530.7 \times 300}{144} = B = 1105.6$  square feet wetted per acre The total area (in square ieet) wet by your system = C
C = B x acres covered by system
Example: If the system covers 20 acres, then
C = 1105.6 square feet per acre x 20 acres
= 22,112 square feet wetted by system.

- 4. The total area (in acres) wet by your system = D D = 22.112 = total acreage wetted by system = .51 43,560
- 5. D x desired acre rate of Trilin 5 = amount to be injected into system. Example: If desired rate is 3.2 pints per acre, then <u>3.2 pints x .51 acre = 1.6 pints Trilin 5 injected into irrigation system</u> acre

#### WHEAT (WINTER)

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

Trilin 5 may be applied for preplant preemergence control of cheatgrass and other annual grasses and broadleaf weeds controlled by Trilin 5. The growth, development and yield of winter wheat will not be adversely affected, provided the seed is placed below the zone of soil treated with Trilin 5.

Apply any time during a period from 3 weeks up to immediately prior to planting. Broadcast at a rate of 1.2 pints per acre on coarse soils and medium soils and 1.6 pints on fine soils.

#### Incorporation Directions

Incorporate into the soil with a flexible tine-tooth harrow (Flextine, Melroe) set to cut 1 to 2 inches deep and operate at 3 to 6 mph. Incorporate one time within 24 hours after application, iollowed by a second incorporation in a different direction from the first prior to planting. Do not till the soil with a disc after the Trilin 5 has been incorporated with flexible tine harrow.

#### 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 5 has been incorporated.

#### Precaution

Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

WHEAT (WINTER) -- FALLOW SOIL APPLICATION in Washington and Oregon -- Trilin 5 applied and shallowly incorporated into fallow soil up to four months ahead of planting will control cheatgrass and certain annual grasses and broadleaf weeds. The growth, development, or yield will not be adversely affected as long as the seed is placed below the zone of soil treated with Trilin 5. Use deep or semi-deep furrow drills.

Broadcast rates are 1.2 pints per acre on coarse and medium soils and 1.6 pints on fine soils. Apply any time from May to September prior to the fall planting of winter wheat.

#### Incorporation

Incorporate with a flexible tine-tooth harrow (Flextine or Melroe) set to cut 1 to 2 inches deep and operated at 3 to 6 mph. For thorough incorporation, two passes of the equipment in different directions over the field are necessary. Incorporate one time within 24 hours after application followed by a second incorporation prior to seeding. Do not till the soil with a disc after Trilin 5 has been applied with a flexible tine harrow.

# Precaution

Use only deep furrow or semi-deep furrow drills. Place seed below the zone of soil into which Trilin 5 has been incorporated. Do not plant wheat directly into the zone of soil treated, injury to the crop or delay in its emergence and development may occur.

# WHEAT (SPRING), DURUM AND BARLEY

TRILIN 5 ALONE

Trilin 5 is recommended as a postplant incorporated treatment to control foxtail (pigeongrass). Apply at a broadcast rate of 0.8 pint per acre on coarse and medium soils and 1.2 pints on fine soils.

Plant 2 to 3 inches deep in a well-tilled seedbed. Apply Trilin 5 after seeding but before the crop emerges. To incorporate use flex-tine or diamond harrows operated two times in different directions, at speeds of at least 5 mph. Incorporate by operating equipment 1 to 1.5 inches deep. Application and the first incorporation should be done in the same operation if possible. Both incorporations must be done within 24 hours.

# WHEAT (SPRING), DURUM, BARLEY (FALL APPLICATION)

Foxtail/Pigeongrass Control

Trilin 5 maybe fall applied for foxtail/pigeongrass control in spring wheat, durum and barley planted the following spring. Trilin 5 may be applied to ground that has a manageable trash level, has been fallowed or pre-tilled. The first incorporation is required within 24 hours after application. A second incorporation is required prior to planting to destroy emerged weeds and to ensure an even distribution of treated soil.

Broadcast Rates F Soil Texture	Per Acre Trilin 5 (pints)
Coarse	0.8
Medium	0.8
Fine	1.2

#### Incorporation Directions

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

1 -- Chisel Plow -- May be used for the first pass only. Operate at 4 - 5 inches deep at 4 - 6 mph. A chisel plow is defined as having 3 rows of up to 18-inch sweeps on no greater than 12-inch centers. Stagger sweeps so that no soil is left unturned.

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2 -- Tandem Disc -- Operate at 3 - 4 inches at 4 - 6 mph.

3 -- Field Cultivator -- Operate at 3 - 4 inches deep at 5 mph or more. A field cultivator is defined as having 3 to 4 rows of sweeps with C'' or S'' shaped shanks, spaced 7 inches or lets and staggered so that no soil is left unturned.

Planting Directions

Wheat, durum, or barley should be approximately 2 inches deep.

# Precaution

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

# WHEAT (SPRING), DURUM AND BARLEY

TRILIN 5/Far-Go Tank Mix

Broadcast Rates Per Acre

Trilin 5/Far-Go applied as a postplant incorporated treatment will control foxtail (pigeongrass) and wild oat.

Plant 2 to 3 inches deep in a well-tilled seedbed. Apply Trilin 5/Far-Go after seedling but before crop emerges. To incorporate, use flex-tine or diamond harrows two times, operated in different directions, at speeds of at least 5 mph. Incorporate by operating equipment 1 to 1.5 inches deep. Application and the first incorporation should be done in the same operation if possible. If not, incorporate immediately after application.

Soil Texture	Trilin 5 Barley Durum Spring Wheat (pints)	Far-Go Durum Spring Wheat Barley (pints) (pints)		
Coarse	0.8	2.5	2	
Medium	0.8	2.5	2	
Fine	1.2	2.5	2	

Precaution

Over application may result in crop injury. Read the Far-Go label carefully before using.

# FLAX -- FALL APPLICATION

Trilin 5 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 as the broadcast rates per acre of 0.8 pint for coarse soils, 1.2 pints for medium soils and 1.0 pints for fine soils.

#### Incorporation Directions

Incorporate one time within 24 hours after application. The second incorporation should be performed in the spring prior to seeding flax. The incorporation operations should result in a thorough mixing of Trilin 5 with the soil. Otherwise, erratic weed control may result.

#### Incorporation Equipment

Use machinery that mixes Trilin 5 thoroughly with the soil. Recommended equipment includes: Disc -- Set to cut 3-4 inches deep and operated in 2 different directions at 4 to 6 mph. A tandem or double-disc operated one time does not provide adequate incorporation.

Field Cultivator -- Set to cut 3-4 inches deep and operated at 5 mph or more. The field cultivator used alone or in combination with the double-disc will provide effective incorporation providing the following instructions are used:

1 -Two passes over the field with a field cultivator with second pass running at an angle to the first. Do not set cultivator to cut deeper than 4 inches. Be sure a depth of not greater than 4 inches is maintained on the second pass since untreated soil may be turned up.

2 - Field cultivator used for the first pass and the double-disc used for the second pass.

3 -- Double-disc used on the first pass and the field cultivator used for the second pass.

Note -A field cultivator is defined as an implement with 3 to 4 rows of sweeps spaced at intervals of 7 inches or less and staggered so that no soil is left unturned. Chisel points should not be used.

Mulch treader and other similar disc-type implements -- Set to cut 3 - 4 inches deep and operated at 5 to 8 mph in two different directions.

#### Special Instructions for Flax

1 -- Incorporation operations or any other tillages performed in the spring prior to seeding should be relatively shallow so as to maintain a firm seedbed, and the seedbed should be packed just prior to seeding.

2 -Seeding should be done with a press drill or hoe drill. Seed into a moist seedbed no more than 1.5 inches deep.

3 -- Flax should not be seeded until the seedbed has warmed up.

4 -- Refer to special precautions statement on this label regarding stresses that can lead to crop injury or yield reduction.

Note: Do not delay the first incorporation more than 24 hours after application.

# **ONIONS (Grown for Dry Bulbs Only)**

Application Directions

Apply Trilin 5 as a directed spray to the soil between the onion rows. Avoid spraying the onion tops or exposed bulbs.

Preharvest Interval Do not apply within 60 days of harvest.

# Broadcast Rates Per Acre

Soil TextureTrilin 5 (pints)Coarse0.6 - 0.8Medium0.8 - 1.0

For band applications, use proportionately less Trilin 5. Use the lower rates where light weed pressure is anticipated.

# Incorporation Directions

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 5 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.

# Precautions

Applied according to these directions and under normal growing conditions, Trilin 5 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 5. Under these conditions, delayed crop development or reduced yields may result.

# RAPESEED

Trilin 5 as a broadcast application will control certain annual grasses and broadleaf weeds in rapeseed.

For Use in All States Except Alaska

Follow recommended procedures for soil preparation and application for Trilin 5. Trilin 5 may be applied in the fall or early spring prior to seeding.

Set incorporation equipment to incorporate to a depth of 3 to 4 inches with equipment specified in this label.

Broadcast Rates Per Acre

Soil Texture	Trilin 5 (pints)
Coarse	0.8
Medium	1.2
Fine	1.6

# FERTILIZER USE DIRECTIONS APPLICATION WITH LIQUID FERTILIZERS

Trilin 5 may be mixed with most liquid fertilizer materials. The combination with solutions and suspension-type fertilizers har provided weed and grass control equal to the same rates of Trilin 5 applied in water. Follow Trilin 5 label recommendations regarding rates per acre, crops, incorporation directions, special instructions, cautions and special precautions.

Individual state regulations relating to liquid fertilizer mixing, registration, labeling and applications are the responsibility of the individual and/or company selling the fertilizer and chemical mixture...

Testing for Tank Mix Compatibility in Liquid Fertilizers

Trilin 5 alone or in tank mixture with dry flowables, wettable powders (WP), aqueous suspensions (AS), Flowables (F), liquids (L), or solutions (S) may not combine properly with some fluid fertilizer materials. Small quantities should always be tested before full-scale mixing. This will determine whether a compatibility agent is needed, and which agent does the best job. The seven agents listed below have been thoroughly tested. There are many other surfactants on the market which were not designed for use with liquid fertilizer. Use the following test to select the correct agent for your mixture.

1 -- Put 1 pint of the liquid fertilizer in a quart jar.

2 -- Add 1 to 4 teaspoonful(s) of the dry flowable, WP, AS, F, or L formulation (depending on the recommended rate per acre) to the liquid fertilizer. Close jar and agitate until the materials are dispersed evenly in the fertilizer. If the materials do not disperse well, it maybe necessary to slurry the chemicals in water before addition to the fertilizer.

3 -- After dispersing the materials (Step 2), add 3 to 4 teaspoonsfuls of Trilin 5 to the jar and shake well. Add solution herbicides to the mixture last and agitate. Observe the jar for about 10 minutes. If the materials rise to the surface and form a thick layer (oily curds) which will not redisperse when agitated, a compatibility agent is needed. If the mixture is easily redispersed to its original state with slight agitation, no agent is needed but good agitation must be provided in the fertilizer spray tank.

4 -- If the need for a compatibility agent is shown on Sept 3, using a clean quart jar, start at Sept 1 above, add 0.5 teaspoon of the compatibility agent to the liquid fertilizer, mix well, then repeat Steps 2 and 3.

An effective compatibility agent will cause the mixture to remain uniformly mixed with little or no separating or oil rising to the surface for one half hour or longer. If slight separation does occur, 2 to 3 inversions of the jar should give a uniform remix. If oily curds form which will not redisperse, more agent or another agent should be tried.

Use a clean jar for each test. The compatible mixture will have a uniform appearance and will be relatively easy to keep mixed with gentle agitation of the jar.

# LIQUID FERTILIZER MIXING INSTRUCTIONS

Trilin 5 in Liquid Fertilizer -- Emulsifiable concentrates, such as Trilin 5, can be mixed with liquid fertilizers. In all cases, continuous agitation is required to prevent the Trilin 5 from rising to the surface as an oily layer. When necessary, (see Testing for Tank Mix Compatibility in Liquid Fertilizers, above) a compatibility agent can be used to cause the Trilin 5 to emulsify

properly (i.e., have a milky appearance rather than an oily layer). The use of compatibility agents is especially important when tank mixing emulsifiable concentrates (EC) with dry flowables, wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) in liquid fertilizer. If the emulsion is not properly formed and the Trilin 5 rises to the surface of the fertilizer as an oil (``oils out'') the oil may combine with the wettable powder, flowable, or suspension to form oily curds (viscous phase) which is difficult to redisperse. Any one of the compatibility agents listed below is helpful in causing liquid concentrates to form non-oiling mixtures with liquid fertilizers. These 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. Read the label on the compatibility agent and follow the directions.

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

All of the above are phosphate, ester-type surfactants designed to be used with liquid fertilizers. They usually do not work as compatibility regents in tank mixtures in plain water.

Compat, T-Mulz 734-2 and Amoco Spray Mate are not for use in California.

#### Application

Spread the fertilizer/pesticide mixture with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

# Incorporation

Follow normal Trilin 5 incorporation procedures.

Trilin 5 application with dry bulk fertilizers -- Dry bulk fertilizers may be impregnated or coated with Trilin 5. Application of dry bulk fertilizers impregnated with Trilin 5 has provided weed and grass control equal to the same rates of Trilin 5 applied in water.

All Trilin 5 label recommendations regarding rates per acre, approved crops, incorporation, special instructions, cautions, and special precautions must be followed.

Apply a minimum of 200 pounds per acre of dry fertilizer impregnated with Trilin 5 at the recommended rates. Any commonly used dry fertilizers can be used for Trilin 5 impregnation except coated ammonium nitrate and straight limestone. These materials will not absorb the herbicide. Blends containing mixtures of these materials can be impregnated.

#### Impregnation

Use any closed drum, belt, ribbon or other commonly used dry bulk fertilizer blender. Apply Trilin 5 uniformly to the fertilizers.

#### Rates

Check specific crop recommendations for the rate of Trilin 5 per acre. See the rate table which follows to determine the amount of Trilin 5 to be impregnated into the ton of dry bulk fertilizer based on the amount of fertilizer which will be applied per acre (see rate chart below).

# Application

Spread the fertilizer/chemical mixture with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

# Incorporation

Follow Trilin 5 incorporation procedures.

# RATE CHART FOR IMPREGNATING FERTILIZER WITH TRILIN 5

(Trilin 5 added to a Ton of Fertilizer)

# Trilin 5 Rate Per Acre

Fertilizer Rate Per Acre	0.8 pint	1.2 pints	1.6 pints	2.4 pints	3.2 pints
200 pounds	4 qts/ton	6 qts/ton	8 qts/ton	12 qts/ton	16 qts/ton
250 pounds	3.2 qts/ton	4.8 qts/ton	6.4 qts/ton	9.6 qts/ton	12.8qts/ton
300 pounds	2.7 qts/ton	4 qts/ton	5.6 qts/ton	8 qts/ton	10.8 qts/ton
350 pounds	2.3 qts/ton	3.6 qts/ton	4.8 qts/ton	6.8 qts/ton	9.2 qts/ton
400 pounds	2 qts/ton	3 qts/ton	4 qts/ton	6 qts/ton	8 qts/ton
450 pounds	1.8 qts/ton	2.7 qts/ton	3.6 qts/ton	5.4 qts/ton	7.2 qts/ton

For rates other than those listed above, use the following formula to calculate the amount of Trilin 5 to be impregnated on a ton of dry bulk fertilizer:

Pints		1000		quarts TRILIN 5
Trilin 5 per	Х	lbs. fertilizer	=	per ton of
acre		per acre		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.

#### SPECIAL PRECAUTIONS

Applied according to directions and under normal growing conditions, Trilin 5 will not harm the treated crop. Over application may result in crop injury or a soil residue. Uneven application of improper soil incorportion of Trilin 5 can result in erratic weed control or crop injury. Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration or drought may weaken crop seedlings and increase the possibility of damage from Trilin 5. Under these

conditions, delayed crop development or reduced yields may result.

In Arizona, Colorado, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, sugarbeets, red beets or spinach should not be planted for 12 months after a spring application or for 14 months after a fall application. Plow the land to a depth of 12 inches prior to planting sugar beets to prevent the possibility of crop injury. Sorghum (milo), proso millet, corn or oats should not be planted for 14 months after a spring application or for 16 months after a fall application to avoid crop injury. If land has not been irrigated, do not plant any of these crops for 18 months after a spring application or 20 months after a fall application. In those portions of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota and Texas where at least 20 inches of irrigation and/or rainfall (total) was used to produce the crop, sorghum or oats should not be planted for 12 months after an application.

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

In all other areas receiving greater than 20'' rainfall/year, Moldboard plow before planting sugar beets where a spring application of Trilin 5 was made the previous season. Also note planting restrictions listed in the section on control of rhizome johnsongrass and other higher rate programs.

Vegetable Growing Areas

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

# 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 WARRANTIE<sup>C</sup> OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.