SOYBEANS

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 TREFLAN at a broadcast rate per acre of 2 pints on coarse and medium soils and 21/2 pints on fine soils. For soybeans grown in the Eastern United States other than those states listed above: Apply and incorporate TREFLAN at a broadcast rate per acre of 1 pint on coarse soils; 11/2 pints on medium soils; 2 pints on fine soils; 11/2 pints on coarse soils with 2 to 5% organic matter; and 2 to 2½ pints on soils with 5.1 to 10% organic matter.

SAFFLOWER

For safflower grown in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming: Apply and incorporate TREFLAN at a broadcast rate per acre of 11/2 pints on coarse soils; 2 pints on medium soils; and 2½ pints on fine soils.

DRY BEANS AND PEAS

For dry beans and peas grown in Idaho, Oregon and Washington: Apply and incorporate TREFLAN at a broadcast rate per acre of 1 pint on coarse soils; 11/4 to 11/2 pints on medium soils; and 11/2 pints on fine soils.

OTHER CROPS—Eastern United States Only:

For all other crops for which TREFLAN is recommended as a preemergence application, use the rates listed for normal spring applications. Do not fall apply TREFLAN for sugar beets, potatoes and direct-seeded tomatoes.

APPENDIX II RHIZOME JOHNSONGRASS CONTROL

SOYBEANS—Eastern United States and the State of Texas

Commercially acceptable control of rhizome Johnsongrass can be obtained with a double-rate TREFLAN program when applied for 2 years in a row.

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 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 TREFLAN anytime in the spring before planting for 2 years in a row at a broadcast rate per acre of 2 pints on coarse soils; 3 pints on medium soils; 4 pints on fine soils; 3 pints on coarse soils with 2 to 5% organic matter; and 4 pints on soils with 5.1 to 10% organic matter. OR

Fall Application-Apply TREFLAN 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, OR

Split Application -- Apply as directed under both spring and fall applications for 2 years in a row using the following broadcast rates per acre:

•	Spring	and	Fall
Coarse soils	1 pint		1 pint
Medium soils			1½ pints
Fine soils	2 pints		2 pints

Coarse soils with 2 to 5% organic matter11/2 pints

1½ pints

Soils with 5.1 to 10%

organic matter2 pints

2 pints

Incorporation—Deep incorporation is essential to good rhizome Johnsongrass control. Incorporate TREFLAN thoroughly with a disc set to cut 4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph.

Cuitivation--Some Johnsongrass plants will escape. Timely cultivations during the crop season are necessary to obtain commercially acceptable control. Commercially acceptable control will not be obtained with only 1 year of double-rate TREFLAN use.

Precautions: Plant soybeans after early season adverse weather conditions have passed. Do not plant soybeans deeper than 2 inches. Crop injury in the form of delayed growth may occur under adverse cool, wet weather conditions early in the season when TREFLAN is used according to these recommendations.

In the season following either the 1 or 2-year treatments, plant only those crops for which TREFLAN has been registered as a preplant treatment or injury may result.

COTTON-

All Cotton Producing States except Arizona and California. Commercially acceptable control of rhizome Johnsongrass can be obtained with a double-rate TREFLAN program when applied for 2 years in a row.

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 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 TREFLAN anytime in the spring before planting for 2 years in a row at a broadcast rate per acre of 2 pints on coarse soils; 3 pints on medium soils and 4 pints on fine soils, OR

Fall Application-Apply TREFLAN 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 to good rhizome Johnsongrass control. Incorporate TREFLAN thoroughly with a disc set to cut 4 to 6 inches deep and operate in 2 different directions at 4 to 6 mph.

Cultivation—Some Johnsongrass plants will escape. Timely cultivations during the crop season are necessary to obtain commercially acceptable control. Commercially acceptable control will not be obtained with only 1 year of double-rate TREFLAN use.

Precautions: Plant cotton after early season adverse, wetweather conditions have passed. Crop injury in the form of reduced stands and delayed growth will occur under adverse cool, wet-weather conditions early in the season and may result in delayed maturity and reduced yields when TREFLAN is used according to these recommendations. High quality seed accompanied by a good fungicide program to control seedling diseases in addition to other recommended cultural and chemical practices should be used to minimize crop injury from TREFLAN.

In the season following either the 1 or 2-year treatments.

plant only those crops for which TREFLAN has been registered as a preplant treatment or injury may result.

TREES AND VINEYARDS—Western United States only:

Commercially acceptable control of rhizome Johnsongrass can be obtained with post-plant applications in Bearing and Non-Bearing established plantings of Vineyards, Almond, Apricot, Grapefruit, Lemon, Nectarine, Orange, Peach, Pecan, Tangelo, Tangerines and Walnut trees with a TREFLAN program when applied for 2 years in a row.

Soil Preparation—Work the soil thoroughly to bring the rhizomes nearer the surface.

Application—Apply TREFLAN at a broadcast rate per acre of 4 pints on all soil textures each year for 2 years in a row. Do not apply to vineyards within 60 days of harvest.

Incorporation—Incorporate TREFLAN thoroughly with a disc set to cut 4 to 6 inches deep and operate 2 times at 4 to 6 mph.

Cultivation—Some Johnsongrass plants will escape. Timely cultivations are necessary to obtain commercially acceptable control. Commercially acceptable control will not be obtained with only 1 year of TREFLAN use.

Precautions: Do not use the 2-quart rate on new plantings as injury may result. Do not interplant orchards or vine-yards with other crops. If Treflan-treated vineyards and orchards are diverted to other crop uses, plant only those crops for which Treflan has been registered as a preplant treatment.

APPENDIX III—TREFLAN APPLICATION WITH FLUID FERTILIZERS

GENERAL

*5*2

TREFLAN may be mixed with most fluid (liquid) fertilizer

materials. Combination of TREFLAN with solutions and suspension-type fertilizers has provided weed and grass control equal to the same rates of TREFLAN applied in water.

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

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

COMPATIBILITY TEST-

TREFLAN and some fluid fertilizer materials may not combine properly. Small quantities should always be tested before full-scale mixing.

- 1. Put 1 pint of fertilizer mixture in a quart jar.
- 2. Add 2 teaspoonfuls of TREFLAN.
- 3. Close jar and shake well.
- Watch mixture for several seconds, check again 30 minutes later.
- 5. If the mix does not separate, the combination may be used. If the mixture foams, separates, gets very thick or syrupy, DO NOT combine for field application.
- 6. Mixing ability may be improved by adding a compatibility agent. The suggested compatibility agents are Kalo Laboratories' Compex and Witco Chemicals' Sponto 168D. Both agents are used in the same way. Follow the procedure outlined above and add ½ teaspoon of the compatibility agent in Step 2. Complete the other steps to determine if the compatibility agent solves the problem.

If a compatibility agent is needed, Compex should be used at the rate of 5 to 15 pints per ton of fluid

fertilizer. Sponto 168D should be used at the rate of 5 to 10 pints per ton of fluid fertilizer.

MIXING---

If a compatibility agent is needed, add it to the fluid fertilizer before adding the TREFLAN. If compatibility is a problem, mix 2 quarts of water with 1 quart of TREFLAN before pouring into the fertilizer.

TREFLAN should be poured directly into the fluid fertilizer and mixed thoroughly. Continued agitation is needed until application is complete.

APPLICATION

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

INCORPORATION

Follow normal TREFLAN incorporation procedures.

APPENDIX IV—TREFLAN APPLICATION WITH DRY BULK FERTILIZERS

GENERAL

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

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

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.

LIMITATIONS

A minimum of 200 pounds per acre and a maximum of 450 pounds per acre of dry fertilizer impregnated with TREFLAN at the recommended rate must be applied. Any commonly used dry fertilizers can be used for TREFLAN impregnation except straight 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. The nozzle or nozzles used to spray the TREFLAN on to the fertilizer should be placed to provide uniform spray coverage.

RATES

Check the crop section to determine the rate of TREFLAN per acre. See the rate table which follows to determine the amount of TREFLAN to be impregnated on a ton of dry bulk fertilizer based on the amount of fertilizer which will be applied per acre. (See rate chart on pages 56 and 57).

APPLICATION

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

INCORPORATION

Follow normal TREFLAN incorporation procedures.

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RATE CHART FOR IMPREGNATING FERTILIZER WITH TREFLAN TREFLAN added to a TON of fertilizer

Fertilizer Poto Por	TREFLAN Rate Per Acre		
Rate Per Acre →	1 pint	1½ pints	
200 pounds	10 pts. or 5 qts. per ton	15 pts. or 7½ qts. per ton	
250 pounds	8 pts. or 4 qts.	6 qts. or 1½ gal.	
300 pounds	6% pts. or 3% qts. per ton	10 pts. or 5 qts. per ton	
350 pounds	5¾ pts. or 2¾ qts. per ton	9 pts. or 1 % gal. per ton	
400 pounds	5 pts. or 2½ qts. per ton	7½ pts. or 1 gal. per ton	
450 pounds	4½ pts. or 2¼ qts. per ton	3⅓ qts. or ⅓ gal. per ton	

TREFLAN Rate Per Acre				
2 pints	3 pints	4 pints 20 qts. or 5 gal. per ton		
10 qts. or 2½ gal. per ton	15 qts. or 3¾ gal. per ton			
8 qts. or	12 qts. or	16 qts. or		
2 gal.	3 gal.	4 gal.		
14 pts. or	20 pts. or	27 pts. or		
13/4 gal. per ton	2½ gal. per ton	131/3 qt. per ton		
12 pts. or	17 pts. or	23 pts. or		
1½ gal. per ton	2¼ gai. per ton	2% gal. per ton		
5 qts. or	15 pts. or	10 qts. or		
1¼ gal. per ton	1% gal. per ton	2½ gal. per ton		
4½ qts. or	131/3 pts. or	9 qts. or		
1½ gal. per ton	13/4 gal. per ton	2¼ gal. per ton		

Literature revised March 25, 197 XPRM-2546

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56

57

(Elanco Logo)

Net Weight 40 Pounds

ID 5901

ACCEPTED

TREFLAN®

granular

a herbicide for professional use in orn the the islaments.

A selective, pre-emergence herbicide for the control of annual grasses

. Nursery Stock

and broadleaf weeds in:

Gladioli

. Ornamental Trees

. Established Flowers

Ornamental Woody Shrubs

Active Ingredient:

*trifluralin (a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)...5.0%.

Contains 2 pounds active ingredient per 40 pound bag

*TREFLAN® - the registered trademark for Elanco Products trifluralin

CAUTION: Keep out of reach of children. See back of bag for additional caution statements.

ELANCO PRODUCTS COMPANY . A DIVISION OF ELI LILLY AND COMPANY

ACCEPTED WITH COMMENTS

(Back Label)

Read all label directions carefully before applying

WEEDS CONTROLLED

Annual Grasses

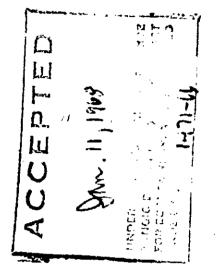
Cheat

Crabgrass Barnyardgrass (watergrass) Foxtails (including giant foxtail) Johnsongrass (from seed) Goosegrass Wild Cane (shattercane) Texas Panicum Stinkgrass Bromegrass Brachiaria Sandbur Jungle rice Annual bluegrass Sprangletop

Annual Broadleaf Weeds

Pigweeds (spiny, redroot)

Carelessweed Lambsquarters Carpetweed Russian thistle Kochia Purslane Florida purslane Knotwead Stinging Nettle Goosefoot Chickweed



Note: TREFLAN will not control certain resistant weeds such as Cocklebur, Velvetleaf, Jimsonweed, Ragweed, Venice Mallow, and Nutgrass.

GENERAL DIRECTIONS

TREFLAN Granular is a pre-emergence herbicide which provides long lasting control of a wide range of annual grasses and broadleaf weeds. TREFLAN controls weeds by killing their seeds as they germinate. It does not control established weeds.

Soil incorporation (mixing) of TREFLAN granular helps assure effective weed control regardless of weather conditions. This permits shallow cultivation, rotary hoeing and hand hoeing without reducing its weed control activity.

TREFLAN Granular also provides effective weed control when applied to the soil surface at increased application rates. Optimum weed control will be obtained when followed by overhead irrigation or rainfall within a few hours after surface application.

TREFLAN is recommended for use on a wide variety of ornamental trees, shrubs and flowers. The ornamental species on which TREFLAN can be used at recommended rates without damage include:

Common Name

ORNAMENTAL TREES

Scientific Name
Abies balsamea
Acer platanoides
Acer rubrum
Acer saccharinum
Acer saccharum
Betula pendula var. laciniata
Castanea mollissima
Cercis canadensis
Cornus florida
Cornus Kousa
Fraxinum americana
Gleditsia triacanthos
Juglans nigra
Larix leptolepis
Liquidambar styraciflua
Liriodendron tulipifera
Malus sp.
Nyssa sylvatica
Picea Abies
Picea glauca
Picea pungens
Pinus nigra
Pinus resinosa
Pinus Strobus
Pinus sylvestris
Pinus taeda
Pinus Thunbergii
Platanus acerifolia
Platanus occidentalis
Populus deltoides
Prunus sp.
Pseudotsuga taxifolia
Quercus coccinea
Quercus palustris
Quercus rubra
Robina pseudoacacia
Taxodium distichum
Tsuga canadensis
The California

Common Name Balsam Fir Norway Maple Red Maple Silver Maple Sugar Maple European White Birch Chinese Chestnut Redbud Flowering Dogwood Kousa Dogwood White Ash Honey Locust Black Walnut Japanese Larch Sweetgum Tuliptree Apple Black Gum Norway Spruce White Spruce Colorado blue spruce Austrian Pine Red Pine White Pine Scotch Pine Loblolly Pine Japanese black pine London Plane-Tree Sycamore Cottonwood Stone-Fruits Douglas Fir Scarlet Oak Pin Oak Red Oak

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Jan 11, 1918
PROTECTION OF THE PROPERTY OF

Black Locust **Bald Cypress**

Canada Hemlock

Scientific Name Berberis mentorensis Berberis Thunbergii Buxus harlandii Buxus microphylla Buxus sempervirens Camellia japonica Camellia Sasanqua Cleyera japonica Cotoneaster apiculata Cotoneaster Zabelii Deutzia Elaeagnus pungens <u>Tuonymus</u> alatus Euonymus Fortunei Euonymus newport Feijoa Sellowiana Forsythia Ilex crenata Ilex hetzi Juniperus chinensis Juniperus conferta Juniperus virginiana Kalmia latifolia Ligustrum erectum Ligustrum japonicum Ligustrum odoratissimum Ligustrum ovalifolium Lonicera Philadelphus Lemoinei Pieris japonica. Pittosporum Tobira Podocarpum macrophylla Potentella Prunus caroliniana Pyracantha Raphiolepis indica Rhododendron indicum Rhododendron obtusum Salix Spiraea vanhouttei Syringa vulgaris Taxus cuspidata Taxus media

Thuja occidentalis

Viburnum wrightii

Weigela

Viburnum odoratissimum

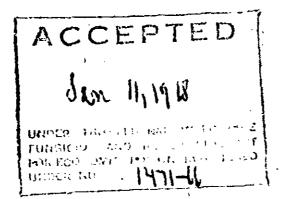
Viburnum suspensum Viburnum tomentosum

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Barberry			
Japanese Barberry	· ·		
Harlandii Boxwood			
Boxwood			
Common Boxwood			
Camellia			
Sasanqua Camellia			
Sakaki			
Cotoneaster			
Cotoneaster			
Deutzia			
Elaeagnus			
Euonymus			
Euonymus			
Euonymus			
Pineapple Guava	••		
Forsythia (Golden Be	clis)		
Japanese Holly			
Holly			
Juniper	production in	enerates as r	2 18 A
Shore Juniper	10		्रहाः कृ
Red Cedar	1.1		,
Mountain Laurel			:
Privet		33	·
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California Privet	I O	4	:
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Mock-Orange	<	•	
Fetterbush			- 3 -
Robira			
Yew Pine		•	Ē
Cinquefoil			
American Cherry-La	aurel		
Firethorn			
India Hawthorn			
Azalea			
Rhododendron			
Willow			
Spiraea			
Common Lilac			
Japanese Yew	•		
Yew •			
American Arborvitae	e		
Sweet Viburnum			
Sandankwa Viburnum	1		
Doublefile Viburnum			
Viburnum		5	
Weigela, Bristol Rul	v		
	7		

ESTABLISHED FLOWERS

Achillea Ageratum Arctotis Aster Balsam Calendula California Poppy Calliopsis Carnation Centaurea Chrysanthemums Cosmos Dahila Dianthus Dimortheca Forget-me-not Four O'Clocks Gaillardia Gladiolus Ixora Lobelia Lupinus

Marigold Morning Glory Nasturtium Nicotiana Periwinkle Petunia Phlox Portulaca Roses Rudbeckia Salvia Scabiosa Shasta Daisy Snapdragon Stock Snow on the mountain. Sunflower Sweet Alyssum Sweet pea Sweet William Zinnia -



APPLICATION DIRECTIONS

Use granular applicators designed to apply herbicide or insecticide granules. Calibrate the applicator according to the manufacturer's directions prior to use and check frequently during application to be sure the equipment is working properly and distributing the granules uniformly. Do not overapply.

Apply TREFLAN Granular prior to the planting of new nursery stock liners, ornamental trees and woody shrubs, and gladioli. (Gladioli corms less than 1 inch in diameter may be injured by pre-plant applications of TREFLAN). TREFLAN may also be applied to these plants when they are established. Apply TREFLAN prior to the germination of weed seeds or to clean-cultivated weed free areas. Do not apply TREFLAN Granular to plantings when the foliage is wet.

1) SOIL INCORPORATED APPLICATIONS

Apply TREFLAN Granular immediately before, or in the same operation as soil incorporation. Use machinery that breaks up large-clods and ACCEPTED mixes TREFLAN thoroughly with the soil.

gan 11,1968

BROADCAST APPLICATION RATES OF TREFLAN GRANULAR

FOR SOIL INCORPORATION:

1471-66

Light Soils

Medium Soils

Heavy Soils

10 lbs./acre (0.5 lb. active)

15 lbs./acre (0.75 lb. active)

20 lbs./acre (1 lb. active)

Equipment: For broadcast applications, granular applicators mounted directly in front of the P. T. O. - driven equipment, disc, rolling cultivator or bed conditioner are recommended. This permits immediate incorporation. Broadcast applicators mounted on a 3-point hitch can also be used. A splash pan should be mounted to help spread the granules and avoid concentration of the material in narrow bands.

Incorporation before planting (pre-plant): Thorough incorporation may be achieved with the following equipment: P. T. O. - driven equipment (tillers, cultivators, hoes) set to cut 2 to 3 inches deep; double disc (or double disc with spiketooth harrow in tandem) set to cut 3 to 6 inches deep and operated in two different directions (cross disced) at 4 to 6 mph.; rolling cultivator set to cut 2 to 4 inches deep and operated at 6 to 8 mph.; or a bed conditioner (Do-All) set to cut 2 to 4 inches deep and operated at 4 to 6 mph.

Incorporation after planting (post-plant): Incorporation may be achieved around established plants by using P. T. O. - driven equipment illers, cultivators, hoes) set to cut 2 to 3 inches deep; or rolling cultivator set to cut 2 to 4 inches deep and operated at 6 to 8 mph. The implement should be adjusted so that the treated so it is thrown towards and around the plants in the row. Clean cultivated established plants before application since TREFLAN will not control existing weeds.

Shallow incorporation with implements set to cut less than 2 inches deep may result in erratic weed control. Do not use spike- or springwooth harrows alone for incorporation.

2) SURFACE APPLICATION

TREFLAN Granular can be surface applied around established plants or on ornamental beds. Apply to a smooth soil surface (no large clods) to assure uniform distribution. Remove existing weeds before applying TREFLAN.

Optimum weed control performance will be obtained when followed by overhead irrigation or rainfall, within a few hours after application.

BROADCAST APPLICATION RATE OF TREFLAN GRANULAR WHEN SURFACE APPLIED:

80 lbs./acre (4 lbs. active)

Equipment: Either a drop-type or a rotary-type granular herbicide or insecticide applicator may be used. TREFLAN will control weeds only where applied; therefore, an even distribution of the granules (no skips or misses) is important for satisfactory weed control.

TREFLAN Granular is not recommended on muck soils.

CAUTION: Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. In case of contact, flush with water. Do not contaminate foodstuffs or feeds.

Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes. Do not graze livestock on treated areas.

The manufacturer makes no warranties, express or implied, concerning this product or its use, which extend beyond the description on the label.

All statements made concerning this product apply only when used as directed.

Destroy bag when empty. Do not reuse.

ELANCO PRODUCTS COMPANY . A DIVISION OF ELI LILLY AND COMPANY

INDIANAPOLIS, U. S. A.

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J.M. II, 1918

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