

ACCEPTED

NOV 1 1973

UNITED STATES FEDERAL INSECTICIDE
FUNGICIDE AND RODENT GIVE ACT
FEDERAL ECONOMIC POISON REG. ACT
ED UNDER NO. 2749-219 SUBJECT
TO ATTACHED COMMENTS.

2749-219



TRIFLURALIN 4EC

A SELECTIVE HERBICIDE FOR THE PRE-EMERGENCE
CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

ACTIVE INGREDIENT:

Trifluralin (a, a, a-trifluoro-2, 6-dinitro-N, N-dipropyl-p-toluidine)* 44.5%

INERT INGREDIENTS:

55.5%

TOTAL

100.0%

*Contains 4 pound active ingredient per gallon.

EPA REG. NO. 2749-219

NET CONTENTS _____

CAUTION: KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION OF EYES, NOSE, THROAT AND SKIN. AVOID INHALATION OF SPRAY MIST. AVOID CONTACT WITH SKIN, EYES OR CLOTHING. IN CASE OF CONTACT, FLUSH WITH PLENTY OF WATER. FOR EYES - GET MEDICAL ATTENTION.

KEEP THIS PRODUCT AWAY FROM DOMESTIC ANIMALS AND FOODSTUFFS.

THIS PRODUCT IS TOXIC TO FISH. KEEP OUT OF LAKES, STREAMS, OR PONDS. DO NOT APPLY WHEN WEATHER CONDITIONS FAVOR DRIFT FROM AREAS TREATED. DO NOT CONTAMINATE WATER BY CLEANING OF EQUIPMENT, OR DISPOSAL OF WASTES. APPLY THIS PRODUCT ONLY AS SPECIFIED ON THIS LABEL.

DO NOT REUSE EMPTY CONTAINER. DESTROY EMPTY CONTAINER BY PERFORATING OR CRUSHING AND BURYING IN A SAFE PLACE.

AVOID FREEZING, STORE ABOVE 40° F.

DO NOT STORE NEAR HEAT OR FLAME.

TRIFLURALIN 4EC IS A PRE-EMERGENCE HERBICIDE WHICH IS MIXED (INCORPORATED) INTO THE SOIL TO PROVIDE LONG-LASTING CONTROL OF CRABGRASS, FOXTAIL, PIG-WEED, CARELESSWEED AND MANY OTHER ANNUAL GRASSES AND BROADLEAF WEEDS (SEE LIST BELOW). TRIFLURALIN 4EC CONTROLS WEEDS BY KILLING THEIR SEEDS AS THEY GERMINATE. IT DOES NOT CONTROL ESTABLISHED WEEDS. CLEAN CULTIVATE TO DESTROY EXISTING WEEDS BEFORE TRIFLURALIN 4EC APPLICATION. TRIFLURALIN 4EC WILL NOT CONTROL CERTAIN RESISTANT WEEDS SUCH AS COCKLEBUR, VELVETLEAF, JIMSONWEED, RAGWEED, VENICE MALLOW AND NUTGRASS.

INCORPORATION OF TRIFLURALIN 4EC INTO THE TOP 2 TO 3 INCHES OF FINAL SEEDBED HELPS ASSURE EFFECTIVE WEED CONTROL REGARDLESS OF WEATHER CONDITIONS AND PERMITS SHALLOW CULTIVATION, ROTARY-HOEING AND HAND-HOEING WITHOUT REDUCING WEED CONTROL ACTIVITY OF TRIFLURALIN 4EC.

WEEDS CONTROLLED

ANNUAL GRASSES

- Crabgrasses
- Barnyardgrass (watergrass)
- Foxtails (including giant foxtail)
- Johnsongrass (from seed)
- Goosegrass
- Wild Cane (Shattercane)
- Texas panicum
- Stinkgrass
- Bromegrass
- Brachiaria
- Sandbur
- Junglerice
- Annual bluegrass
- Sprangletop
- Cheat

ANNUAL BROADLEAVES

- Pigweeds (spiny, redroot)
- Carelessweed
- Lambsquarters
- Carpetweed
- Russian thistle
- Kochia
- Henbit (fall application only)
- Purslane
- Florida purslane (pusley)
- Knotweed
- Stinging nettle
- Goosefoot
- Chickweed

CROPS

- Cotton
- Soybeans
- Dry Beans and Southern Peas
- Snap Beans and Lima Beans
- Safflower
- Castor Beans
- Okra
- Carrots
- Sugar Beets (blocking or thinning)
- Potatoes (post-plant except Maine)
- English Peas
- Established Alfalfa (central States only)
- Turnip Greens (grown for processing), Collard, Kale and Mustard Greens
- Sugarcane (post-plant on plant cane)
- Guar Beans
- Mungbeans
- Sunflower
- Transplants of Tomatoes Peppers, Broccoli, Brussels Sprouts, Cabbage and Cauliflower
- Direct-Seeded Broccoli, Brussels Sprouts, Cabbage and Cauliflower
- Tomatoes (direct-seeded at blocking or thinning)
- Non-bearing Vineyards
- Citrus and Pecan Tree
- Orange, Grapefruit, Lemon, Tangerine and Tangelo Trees

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NOTE: IN FLORIDA ONLY: DO NOT PLANT VEGETABLE CROPS OTHER THAN THOSE PRESENTLY LISTED ON THE LABEL WITHIN FIVE MONTHS FOLLOWING THE APPLICATION OF TRIFLURALIN 4EC AS INJURY TO THE CROP MAY RESULT.

APPLICATION AND INCORPORATION DIRECTIONS

Chop and thoroughly mix crop residues into soil to a depth of 4 to 6 inches by deep plowing, offset discing or tandem discing prior to TRIFLURALIN application.

Add the recommended amount of TRIFLURALIN 4EC to clean water in the spray tank during the filling operation. Apply in 5 to 40 gallons of water per acre (broadcast basis), using any properly calibrated low-pressure herbicide sprayer that will apply the spray uniformly. As the amount of water used (spray volume) decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform application.

Apply TRIFLURALIN 4EC to soil surface and incorporate in the same operation, if possible. Use machinery that breaks up large clods and mixes TRIFLURALIN 4EC thoroughly with the soil. Knock off beds to planting height before application and incorporation on bedded ground. Avoid removal of treated soil from seedbed prior to or during the planting operation.

Incorporation may be delayed up to 4 hours after application. Variable weed control may result from delayed incorporation if TRIFLURALIN 4EC is applied to a wet, warm soil surface or if the wind velocity is 10 mph or higher.

In the Central United States, do not plant sorghum or oats for 12 months where Trifluralin 4EC has been applied unless 25 inches or more of irrigation and/or rainfall (total) was used to produce the crop. If less than 25 inches total water was used to produce the crop during the year, do not plant either crop for 18 months after Trifluralin 4EC application. Cool, wet weather conditions during the early stage of growth may increase the possibility of injury to sorghum.

If land has not been irrigated, do not plant either of these crops for 18 months after a TRIFLURALIN 4EC spring application or for 20 months after fall application. Cool, wet weather conditions during the early stages of growth may increase the possibility of injury to sorghum.

INCORPORATION BEFORE PLANTING (preplant): Incorporate TRIFLURALIN 4EC with any of the following: P.T.O.—driven equipment (tillers, cultivators, hoes) set to cut 2 to 3 inches deep with rotors spaced to provide a clean sweep of the soil; double disc set to cut 3 to 4 inches deep and operated in two different directions (cross disc) at 4 to 6 mph; mulch treader and other similar disc-type implements set to cut 3 to 4 inches deep and operated at 5 to 8 mph in two different directions; rolling cultivator set to cut 2 to 4 inches deep and operated twice at 6 to 8 mph; bed conditioner (Do-All) set to cut 2 to 4 inches deep and operated at 4 to 6 mph. Shallow incorporation with implements set to cut less than 2 inches deep may result in erratic weed control. Do not spike — or spring-tooth harrows alone for incorporation.

INCORPORATION AFTER PLANTING (post-plant): Incorporate post-plant applications with P.T.O. — driven equipment (tillers, cultivators, hoes) set to cut 2 to 3 inches deep with rotors spaced to provide a clean sweep of the soil or rolling cultivators set to cut 2 to 4 inches deep and operated twice at 6 to 8 mph. When incorporating TRIFLURALIN 4EC on established row crops the implement should be adjusted to throw treated soil toward the crop, but avoid mechanical damage to the crop.

BROADCAST RATES IN PINTS PER ACRE										
For band application, use proportionately less. Apply up to 10 weeks before planting. TRIFLURALIN 4EC is not recommended on muck soils. DO NOT apply more than the recommended rates.										
CROPS	EASTERN UNITED STATES (all states east of the Mississippi River plus Minnesota, Iowa, Missouri, Arkansas, Louisiana and those portions of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Texas which receive 20 to 25 inches minimum average rainfall per year.)					CENTRAL UNITED STATES (Colorado, New Mexico and those portions of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Texas which receive less than 20 inches average rainfall per year.)				SPECIAL INSTRUCTIONS
	LIGHT Sand and Sandy loam		MEDIUM Loam, silt loam and silt		HEAVY Clay loam, silty clay and clay	SOILS* with 2 to 5% organic matter		SOILS* with 5 to 10% organic matter		
	(All numbers represent broadcast rates in pints per acre)									
Cotton	1	1½	2	1½	2 to 2½	1	1½ to 1¾	1½	1½ to 2	*For crops showing two rates, use lower rate for lower organic matter soils. Apply and incorporate TRIFLURALIN prior to planting, or anytime up to layby but not less than 90 days before harvest. Direct layby applications to the soil between the rows and beneath emerged cotton plants. When incorporating after planting (post-planting), care must be taken not to disturb the seed. Seedling diseases may weaken cotton plants and increase the possibility of damage from TRIFLURALIN 4EC. To control seedling disease, use a good fungicide program. Note Fall Application instructions on following page.
Soybeans	1	1½	2	1½	2 to 2½		1½ to 1¾	1½	1½ to 2	
Dry Beans Southern Peas Castor Beans Safflower Sunflower Okra Carrots	1	1½	2	1½ to 2	2	1	1½ to 1¾	1½	1½ to 2	Apply and incorporate TRIFLURALIN 4EC before planting. Note Fall Application instructions on following page for soybeans.
Sugar Beets (after blocking or thinning)	1	1½	1½			1	1½ to 1¾	1½		APPLY TRIFLURALIN 4EC as a broadcast, over-top spray to plants immediately after blocking or thinning when plants are between 2 and 6 inches tall. Exposed beet roots should be covered with soil prior to TRIFLURALIN application to reduce possibilities of girdling. Care should be taken that incorporation machinery does not damage the sugar beet taproot.
TRANSPLANTS of Tomatoes Peppers Broccoli Brusselsprouts Cabbage Cauliflower	1	1½	2	1½	2	1	1½ to 1¾	1½	1½ to 2	Apply and incorporate TRIFLURALIN 4EC before transplanting. Do not apply TRIFLURALIN 4EC after transplanting.

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CROPS	SOIL TYPE				SOIL TYPE				SPECIAL INSTRUCTIONS	
	LIGHT	MEDIUM	HEAVY	SOILS*	LIGHT	MEDIUM	HEAVY	SOILS*		
DIRECT-SEEDED Broccoli Brusselsprouts Cabbage Cauliflower	1	1	1½	1½	1	1	1	1½	Direct-seeded cole crops have exhibited marginal tolerance to recommended rates of TRIFLURALIN 4EC or reduced stands may occur.	
Direct-seeded Seeded Tomatoes at blocking or thinning	1	1½	2	1½	2	1	1½ to 1¾	1½	1½ to 2	Apply TRIFLURALIN 4EC as a directed spray to the soil between the rows and beneath the plants and incorporate immediately.
Potatoes (post-plant)	1	1½	2 (except Maine)	1½	2	1	1½ to 1¾	1½	1½ to 2	Apply and incorporate TRIFLURALIN 4EC after planting up to or immediately following dragoff. Care should be taken so that incorporation machinery does not damage potato seed pieces or elongating sprouts.
	Sand and Sandy loam	Loam, silt loam and silt	Clay loam, silty clay and clay	2 to 5% organic matter	with 5 to 10% organic matter	Sand and Sandy loam	Loam, silt loam and silt	Clay loam, silty clay and clay	with 2 to 10% organic matter	*For crops showing two rates, use lower rate for lower organic matter soils
Snap Beans Lima Beans	1	1	1½			1	1	1½		Apply and incorporate TRIFLURALIN 4EC before planting.
Non-bearing Vineyards Non-bearing Citrus and Pecan trees (new plantings)	1	1½	2	1½	2	1	1½ to 1¾	1½	1½ to 2	Apply and incorporate TRIFLURALIN 4EC before planting.
Non-bearing Citrus and Pecan Trees (established plantings)										In established plantings, apply TRIFLURALIN 4EC as a directed spray to the soil around the trees and use incorporation methods not injurious to the trees. NOTE: If crops are planted between the trees, label directions for those specific crops apply to the area which is interplanted. For continued weed control in citrus trees in the Eastern United States, apply TRIFLURALIN 4EC twice a year at an interval of approximately 4 to 6 months.
Bearing Pecan, Orange, Grapefruit, Lemon, Tangerine, and Tangelo Trees	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	
Guar Beans Mungbeans	1	1½	1½			1	1½	1½	1½ to 2	Apply and incorporate TRIFLURALIN 4EC before planting.
English Peas	1	1	1½			1	1½ to 1¾	1½		Apply and incorporate TRIFLURALIN 4EC before planting.
Turnip Greens (grown for processing) Collard, Kale and Mustard Greens	1	1	1½			1	1	1½		Apply and incorporate TRIFLURALIN 4EC before planting.

Sugarcane (post-plant on plant cane)	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	Apply and incorporate TRIFLURALIN 4EC twice a year. Make TRIFLURALIN 4EC application in the fall on firmly packed beds immediately after the seed pieces are planted. Make TRIFLURALIN 4EC spring application to plant cane before or shortly after the cane emerges. Loosen rain-packed beds 2 to 3 inches deep prior to TRIFLURALIN 4EC spring application. Care should be taken so that incorporation machinery does not damage the seed pieces or emerging shoots.
Spanish Peanuts (grown in Texas and Oklahoma only)	1								1	Apply and incorporate TRIFLURALIN 4EC prior to planting, at planting or immediately after planting. When incorporating after planting, care must be taken not to disturb the seed.
Established Alfalfa only in N. Dak., S. Dak., Neb., Colo., Kans., Okla., N. Mex., and Tex.	1½	2	2						1½ 2 2	Use incorporation equipment that will insure thorough soil mixing with a minimum of damage to the established alfalfa.

FALL APPLICATION BROADCAST RATES

Apply October 15 to December 31

Cotton and Soybeans	(all numbers represent broadcast rates in pints per acre)								Ground may be left flat or bedded-up over winter. Complete fall bedding or listing within two weeks after application. Prior to planting, knock down beds to desired height, moving some treated soil from tops into furrows. If weeds become established in furrows due to uncovering of untreated soil during listing destroy these weeds prior to planting. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Do not fall apply TRIFLURALIN 4EC to soils while wet or in poor condition. Do not fall apply TRIFLURALIN 4EC to soils subject to prolonged periods of flooding or soils where rice was grown the previous year.
Alabama Arkansas Florida (northern) Georgia Louisiana Mississippi Missouri (southeastern) North Carolina Oklahoma South Carolina Tennessee Texas New Mexico	2	2	2½				2	2	

NOTE: All other Central and Eastern states will use the recommended rate for spring application. Do not fall apply TRIFLURALIN 4EC for sugar beets, potatoes or direct-seeded tomatoes.



Manufactured for:
ACETO CHEMICAL CO., INC.
AGRICULTURAL CHEMICALS DIVISION
126-02 NORTHERN BOULEVARD, FLUSHING, N.Y. 11368

TRIFLURALIN TECHNICAL ACCEPTED HERBICIDE

January 11, 1973
UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR ECONOMIC POISON REGISTERED
ED UNDER NO. 2749-294 3%

ACTIVE INGREDIENT:
Trifluralin (a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)

INERT INGREDIENTS:

TOTAL 100%

EPA REG. NO. 2749-294
NET WEIGHT _____

CAUTION: KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN. DO NOT GET IN EYES OR ON SKIN. DO NOT BREATHE DUST. WASH THOROUGHLY AFTER HANDLING.

IN CASE OF CONTACT, FLUSH WITH PLENTY OF WATER.

FOR EYES - GET MEDICAL ATTENTION.

DO NOT REUSE EMPTY CONTAINER. DESTROY EMPTY CONTAINER BY PERFORATING OR CRUSHING AND BURYING IN A SAFE PLACE.

THIS PRODUCT IS TOXIC TO FISH. DO NOT CONTAMINATE WATER BY CLEANING OF EQUIPMENT OR DISPOSAL OF WASTES.

DIRECTIONS FOR USE: For use by commercial pesticide formulators, for manufacturing purposes only.



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