

Specimen Label

NOT REVIEWED
In Accordance with FR Notice E2-2,
Based on Draft Labeling dated 3/16/89
7/17/89

Redeem*

Herbicide

*Redeem

For the Control of Woody Plants and Broadleaf Weeds on Rangeland, Permanent Grass Pastures, Roadsides, Fence Rows, Non-Irrigation Ditch Banks and Forest Sites

Active Ingredient(s):

Triclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid), as the triethylamine salt 44.4%

Inert Ingredient(s): 55.6%

Acid equivalent: Triclopyr - 31.8% - 3 lb/gal

E.P.A. Registration No. 464-546

E.P.A. Est. 464-MI-1

KEEP OUT OF REACH OF CHILDREN

DANGER

PELIGRO:

PRECAUCION AL USUARIO:

Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUSES EYE DAMAGE AND SKIN IRRITATION • HARMFUL IF SWALLOWED

Do Not Get In Eyes, On Skin Or On Clothing • Wear Goggles Or Face Shield and Rubber Gloves When Handling • Avoid Contamination Of Food • Wash Thoroughly After Handling

STATEMENT OF PRACTICAL TREATMENT: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention promptly. Flush skin with water and get medical attention if signs of irritation develop. Remove and wash contaminated clothing before reuse. If swallowed, promptly drink a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician.

Physical or Chemical Hazards

Do Not Cut or Weld Container • Do Not Use or Store Near Heat or Open Flame.

Environmental Hazards

Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

NOTICE

Read and understand the entire label before using. Use only according to label directions.

Before buying or using this product, read "WARRANTY LIMITATIONS AND DISCLAIMER" elsewhere on this label. If terms are not acceptable, return unopened package at once to seller for full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under WARRANTY LIMITATIONS AND DISCLAIMER.

IN CASE OF AN EMERGENCY

endangering life or property involving this product, call collect 517-636-4400

AGRICULTURAL CHEMICAL

Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

See Side Panel for Important Use Precautions.

GENERAL INFORMATION

REDEEM Herbicide is recommended for the control of unwanted woody plants and annual and perennial broadleaf weeds in rangeland, permanent grass pastures, forest sites, and on non-crop areas including roadsides, fence rows, non-irrigation ditch banks and around farm buildings. A forest site/woodlot is a small area of woodland usually privately maintained as a source of fuel and lumber.

Among the woody plant species controlled are:

Alder	Dogwood	Persimmon,
Arrowwood	Elderberry	Common
Ash(1) (except	Elm(1) (except	Polecat Oak(1)
Aspen	winged)	Poplar
Beech	Hazel(1)	Sassafras
Birch	Locust, Black	Scotch
Blackberry	Madrone(1)	Broom
Blackgum(1)	Maples(1)	Sumac
Cacora	Including	Sweetgum(1)
Ceanothus	mountain, sugar	Sycamore
Cherry(1) (except	red, striped)	Western
black)	Mulberry	Hemlock
Chinquapin	Oaks(1) (except	Willow
Choke Cherry(1)	for post,	
Cottonwood	blackjack and	
	black oak)	

(1) hard-to-control species

Among the annual and perennial broadleaf weeds controlled are:

Burdock	Field Bindweed(tg)	Smartweed(tg)
Canada Thistle(tg)	Fireweed	Tanay
Chicory(tg)	Ground Ivy	Ragwort
Clover	Lambsquarters	Vetch
Curly Dock	Plantain(tg)	Wild Lettuce
Dandelion	Ragweed	

(tg) top growth

GENERAL DIRECTIONS FOR USE

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

Do not use for manufacturing or formulating.

Do not apply this product through any type of irrigation system.

Use REDEEM Herbicide at rates of 1/4 to 3 gallons (see Grazing Restrictions) per acre to control broadleaf weeds and woody plants. In all cases use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. Use only water suitable for spraying.

TABLE 1

High-Volume Leaf-Stem/Directed Spray Applications Preparation of Different Quantities of Spray Solution

Actual Quantity of Spray Solution	Quantity of Product Listed on Label (to make 3 gallons of spray mixture)			
	1 oz	2 oz	4 oz	20 oz
1 gallon	0.3 oz	0.7 oz	1.4 oz	7 oz
10 gallons	3.3 oz	7 oz	14 oz	4 1/2 pt

Foliar Broadcast Ground Applications (see TABLE 2 if you wish to spray smaller areas): Use 2 to 3 gallons of REDEEM Herbicide and 1/4 to 1 pt of an agricultural surfactant in enough water to make 20 to 100 gallons of total spray per acre or REDEEM at 1/4 to 1 gallon may be combined with 1 to 2 gallons of 2,4-D 3.8 lb amine or low volatile ester in sufficient water to make 20 to 100 gallons of total spray per acre.

Make application using equipment that will assure uniform coverage of the spray volumes applied. To improve spray coverage, add an agricultural surfactant (such as Ortho X-77 or Tronic) at a rate of 1/4 to 1 pint per acre. Use the higher rates of surfactant for lower rates of product and lower spray volumes.

For best results, applications should be made when woody plants and weeds are actively growing. When hard-to-control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks or sweetgum are prevalent and during applications made in late summer when the plants are mature and during drought conditions, use the higher rates of REDEEM Herbicide alone with high-volume foliar application methods or using single-stem non-foliar techniques.

The recommended order of addition to the spray tank is water, NALCO-TROL drift control additive (if used), surfactant (if used), additional herbicide (if used), REDEEM Herbicide. If combined with emulsifiable concentrate herbicides, moderate continuous adequate agitation is required.

When using REDEEM in combination with 2,4-D 3.8 lb amine or low volatile ester herbicides, generally the higher rates should be used for satisfactory brush control.

Use the higher dosage rates when brush approaches an average of 15 feet in height or when the brush covers more than 60% of the area to be treated. If lower rates are used on hard-to-control species, resprouting may occur the year following treatment. Brush over 8 feet tall is difficult to treat efficiently. Large brush or trees may be better controlled by basal or mechanical methods.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels.

NON-CROP AREA APPLICATIONS

A - Woody Plant Control

High-Volume Leaf-Stem Treatment with Ground Equipment: Using a power- or hand-pressured spray gun or wand, apply REDEEM Herbicide at the rate of 2 to 4 ounces in enough water to make 3 gallons of spray solution or REDEEM at 1 ounce to 2 ounces may be tank mixed with 1 to 2 ounces of 2,4-D 3.8 lb amine or low volatile ester and diluted to make 3 gallons of spray solution. Coverage should be thorough to wet all leaves, stem, and root collars. (See Use Precautions and TABLE 1 mixing chart to help you prepare different quantities of spray solution).

The required spray volume will increase substantially if the brush exceeds 5 feet in height. Brush over 8 feet tall is difficult to treat efficiently. Large brush or trees may be better controlled by basal or mechanical methods.

Directed Applications: To control hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, alder, birch, aspen, and pin cherry mix 4 to 20 ounces of REDEEM Herbicide in enough water to make 3 gallons of spray mixture. To improve spray coverage, add an agricultural surfactant such as Ortho X-77 or Tronic. This spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration (when plants are actively growing). The majority of treated hardwoods should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable pines.

TABLE 2
Broadcast Spray Applications (Brush and Weed Control) Preparation of Spray Solution for Smaller Areas

Area to be Sprayed	Quantity Listed on Label (Quantity per Acre)														
	Pints			Quarts		Gallons									
	1/4	1	2	1/2	1/2	1	1.3	1.5	2	3	10	20	30	50	100
1000 ft sq	1/4 wp	2 wp	8 wp	1 oz	1.5 oz	3 oz	3.9 oz	4.5 oz	6 oz	9 oz	30 oz	3/4 pt	5/8 pt	1.2 gal	2.3 gal
5000 ft sq	0.5 oz	1.8 oz	7 oz	5 oz	7 oz	15 oz	20 oz	21 oz	30 oz	2/4 pt	1.2 gal	2/4 gal	3.6 gal	5.6 gal	11.2 gal
10,000 ft sq	5 wp	3.5 oz	14 oz	10 oz	14 oz	1/4 pt	38 oz	2/4 pt	3/4 pt	5/4 pt	2.2 gal	4.4 gal	6.6 gal	11 gal	22 gal

Single-Stem Non-Foliar Applications:

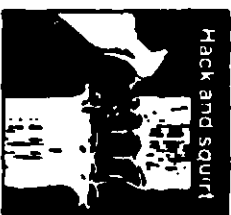


TREE INJECTOR METHOD:

Applications should be made by injecting 1/2 millimeter of undiluted REDEEM or 1 millimeter of the diluted (1:1 ratio, in water) solution through the bark at intervals of 3-4 inches between centers of the injector wound. The injections should completely surround the tree at any convenient height.

WITH FRILL OR GIRDLE METHOD:

Make a single girdle through the bark completely around the tree at a convenient height. Wet the cut surface with undiluted or diluted solution.



Both of the above methods may be used successfully in any season except during periods of heavy sap flow particularly with certain species such as maples.

STUMP TREATMENT: Spray or paint the cut surfaces of freshly cut stumps and stumps with undiluted REDEEM Herbicide. The cambium area next to the bark is the most vital area to wet.



NOTE: Cut surface methods may be used to treat susceptible woody species on range and permanent grass pasture land, provided that no more than 2 quarts of REDEEM Herbicide are applied per acre.

B - Broadleaf Weed Control

Use REDEEM Herbicide at rates of 1/2 to 1 1/2 gallons and 1/4 to 1 pint of an agricultural surfactant in a total volume of 20 to 100 gallons per acre as a water spray mixture. Apply at any time the plants are actively growing. REDEEM at 1/2 to 1 gallon may be tank mixed with 1/2 to 1 gallon of 2,4-D 3.8 lb active or low volatile herbicides to improve the spectrum of activity. (See surfactant recommendations listed under Woody Plant Control - Foliar Broadcast Applications.)

RANGE AND PERMANENT GRASS PASTURE IMPROVEMENT APPLICATIONS

All application methods, previously reviewed, may be used to treat susceptible weeds and brush on range and permanent grass pasture land provided that no more than 2 quarts of REDEEM Herbicide are applied per acre. For control of sensitive woody species, use 2 quarts of REDEEM in combination with a 2,4-D product or other product approved for brush control on range and permanent grass pasture. High-volume foliar applications (providing better plant coverage) or single-stem non-foliar application methods would provide best control using the low rate of REDEEM. Large plants or hard-to-control species requiring higher rates of REDEEM may not be completely controlled.

Do not use on newly seeded grasses until grass has established a good root system and is tilling. Do not spray pastures containing desirable broadleaf forbs, especially legumes, unless injury to such plants can be tolerated.

Grazing Restrictions: Withdraw livestock from treated forage at least 3 days before slaughter during the year of treatment. Do not graze lactating dairy animals on treated areas for one year following treatment. Do not harvest grass for hay from treated areas for one year following treatment. Do not graze areas treated with more than 2 quarts of REDEEM Herbicide per acre or harvest hay from treated areas for one year following treatment.

FOREST SITE MANAGEMENT APPLICATIONS

"Single-Stem Non-Foliar Applications" methods may also be used to manage forest sites or woodlots. Follow use directions listed in the "Non-Crop Area Applications - Woody Plant Control" section. A forest site/woodlot is a small area of woodland usually privately maintained as a source of fuel, post and lumber.

Forest Site Preparation (not for conifer release): Use 2 to 3 gallons of REDEEM Herbicide and 1/4 to 1 pint of an agricultural surfactant and apply in a total spray volume of 10 to 30 gallons per acre or REDEEM at 1 to 1 1/2 gallons may be used with 1 to 2 gallons of 2,4-D 3.8 lb low volatile ester in a tank mix combination in a total spray volume of 10 to 30 gallons per acre.

NOTE: Conifers planted sooner than one month after treatment with REDEEM at less than 1 1/2 gallon per acre or sooner than two months after treatment at 1 1/2 to 3 gallons per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period observed.

For broadcast applications of REDEEM Herbicide, use volume rates needed to provide adequate coverage of brush for good control, usually 10 to 100 gpa by ground. To improve spray coverage of spray volumes less than 50 gpa, add an agricultural surfactant such as Ortho X-77 or Thionic at a rate of 1/4 to 1 pint per acre. Use the higher rates of surfactant for lower rates of product and lower spray volumes. Application systems should be used to prevent hazardous drift to off-target sites. Nozzles or additives that produce large droplets of spray may require higher spray volumes to maintain brush control.

Directed Spray Applications for Conifer Release: To release conifers from competing hardwoods such as red maple, sugar maple, striped maple, sweetgum, hick and white oaks, ash, alder, birch, sycamore, and pin cherry, mix 4 to 20 ounces of REDEEM Herbicide in enough water to make 3 gallons of spray mixture. To improve spray coverage, add an agricultural surfactant such as Ortho X-77 or Thionic. The spray mixture should be directed onto foliage of competitive hardwoods using backpack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration. The majority of treated hardwoods should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable species.

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NOTE: Spray may cause temporary damage and growth suppression where contact with conifers occurs; however, injured conifers should recover and grow normally. Over-the-top spray applications can kill pines.

USE PRECAUTIONS

Apply this product only as specified on this label.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels.

Do not apply REDEEM Herbicide directly to, or otherwise permit it to come into contact with grapes, tobacco, vegetable crops, flowers or other desirable broadleaf plants and do not permit spray mists containing it to drift onto them.

AVOID INJURIOUS SPRAY DRIFT: Application should be made only when there is little or no hazard from spray drift. Very small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke lingers or indicates a potential of hazardous spray drift, do not spray.

Ground Equipment: To aid in reducing spray drift, REDEEM should be used in thickened (high viscosity) spray mixtures using Nalco-Trol drift control additive, high viscosity invert systems, or equivalent as directed by the manufacturer. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray solution per acre; by using no more than 30 pounds spraying pressure with large droplet-producing nozzle tips; and by spraying when wind velocity is low. Do not apply with nozzles that produce a fine-droplet spray.

High-Volume Leaf-Stem Treatment: To minimize spray drift, do not use pressure exceeding 50 ps. at the spray nozzle and keep sprays no higher than brush tops. Nalco-Trol thickening agent or equivalent may be used to reduce drift.

Do not use a mistblower.

It is better not to disturb the treated area until the spray has dried. Leaving undisturbed while drying will allow better penetration of the product into the plant, for more effective results.

Do not use on newly seeded grass until the grass has established a good root system and is tillering.

Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

Do not apply on ditches used to transport irrigation water. Do not apply where runoff or irrigation water may flow onto agricultural land as injury to crops may result.

Be sure that use of this product conforms to all applicable regulations.

STORAGE AND DISPOSAL

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

STORAGE: Store above 28°F or agitate before use.

DISPOSAL:

Prohibitions - Open dumping is prohibited.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved state and local procedures. Plastic containers may also be disposed of by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General - Consult federal, state, or local disposal authorities for approved alternative procedures.

WARRANTY LIMITATIONS AND DISCLAIMER

The Dow Chemical Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions therein under normal conditions of use. THIS IS THE ONLY WARRANTY MADE ON THIS PRODUCT. NO OTHER EXPRESS AND NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OUTSIDE OF THIS LABEL. Therefore, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to use of this product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or user must promptly notify in writing The Dow Chemical Company of any claims to be eligible to receive either remedy given below. The EXCLUSIVE REMEDY OF THE BUYER OR USER and the LIMIT OF LIABILITY of The Dow Chemical Company or any other seller will be one of the following, at the election of The Dow Chemical Company:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

The seller will not be liable for consequential or incidental damages or losses.

The terms of this Warranty Limitations And Disclaimer cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations And Disclaimer in any manner.

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