

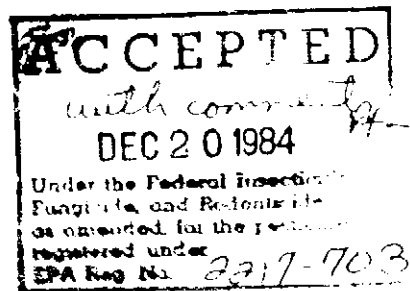
(front panel)

ACME



AGRICULTURAL
PRODUCTS

✓ HI - DEPTM
HERBICIDE



SEE BOOKLET IN ATTACHED PLASTIC ENVELOPE FOR COMPLETE USE DIRECTIONS.

-KEEP FROM FREEZING-

ACTIVE INGREDIENTS:

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic acid.....	33.2%	✓
Diethanolamine Salt of 2,4-Dichlorophenoxyacetic acid....	16.3%	
<u>INERT INGREDIENTS.....</u>	<u>50.5%</u>	

TOTAL 100.0%

This Product Contains: 3.8 lbs. 2,4-Dichlorophenoxyacetic acid
per gallon or 38.60% isomer specific by AOAC Method 6.D01-5.

KEEP OUT OF REACH OF CHILDREN

DANGER

See side panels for Statement of Practical
Treatment and additional precautionary
statements.

NET CONTENTS 2½ U.S. GALLONS (9.46 Liters)

EPA Reg. No. 2217-TNG

EPA Est. No. 2217-KS 1

(left panel)

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PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals:

DANGER - Corrosive, causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear goggles or face shield, and rubber gloves when handling. Harmful or fatal if swallowed.

Statement of Practical Treatment:

If In Eyes: In case of eye contact, immediately flush eyes with plenty of water for 15 minutes. Call a physician at once.

If On Skin: Wash promptly with soap and water. Rinse thoroughly. If irritation develops, get medical attention.

If Swallowed: Drink one or two glasses of water. Induce vomiting by touching back of throat with finger. Call a physician at once. Do not induce vomiting or give anything by mouth to an unconscious person.

If Inhaled: Remove victim to fresh air and apply respiration if indicated.

Environmental Hazards:

Under no circumstances should this herbicide product or any 2,4-D weed killer be used in the vicinity of cotton, tomatoes, garden crops, grapes, ornamentals, or other susceptible crops, or severe damage may result. Do not apply on windy days.

Do not use equipment used in applying this product or any 2,4-D weed killer to apply insecticides, fungicides, or other material to susceptible crops.

Avoid contamination of water supplies that may be used to irrigate or water susceptible crops, or used for domestic purposes.

Do not apply directly to water. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply in any manner not specified on this label.

DIRECTIONS FOR USE

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

STORAGE & DISPOSAL

STORAGE: Store in original container in a locked storage area inaccessible to children or pets. Keep from freezing. To prevent cross-contamination, do not store near other herbicides, fertilizers, insecticides, fungicides, or near seeds.

PESTICIDE DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate 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 incineration, or, if allowed, by state and local authorities, by burning. If burned, stay out of smoke.

AUTOMOBILE FINISH PRECAUTION

Undiluted spray droplets may damage automobile finishes. Cars should not be sprayed. If accidental exposure does occur, the car should be washed before product dries.

USE INSTRUCTIONS

Aerial Application: Ready-To-Use, not necessary to dilute for application rates of 1/2 gallon (2 quarts) per acre or higher. For rates lower than 1/2 gallon, dilute with water for a total solution per acre of not less than 1/2 gallon.

Ground Application: Mix with water, 1 to 10 gallons total solution per acre minimum.

Application**

Aerial (fixed wing or rotary wing): Aircraft specifications: Boom width should not exceed 3/4 the length of the aircraft wingspan. Do not exceed 25 psi nozzle pressure. Number of nozzles required to obtain desired volume per acre is dependent on swath width and speed of aircraft. Nozzles should be positioned between 135° and 175° from direction of flight for fixed wing. Do not apply through Reco-Mist nozzle systems. Maintain aircraft altitude of 10 to 12 feet during application. See manufacturer's technical bulletin regarding nozzling and method of application specifications.

Ground: Apply in water 1 to 10 gallons total solution per acre minimum with conventional equipment. Use nozzle systems capable of spraying correct gallonage; 25 psi is recommended.

**Timing of applications may vary - your State Cooperative Extension Service may have information on the correct application time for your area.

WEEDS CONTROLLED LIST

Use HI-DEP herbicide to control many broadleaf weeds including:

ANNUAL AND BIENNIAL WEEDS:

Beggarticks	Groundsel	Primrose
Bitterweed	Henbit	Puncturvine
Black medic	Jewelweed	Radish (wild)
Broomweed	Jimsonweed	Ragweed
Bull thistle	Jim Hill mustard	Russian thistle
Burdock	(Tumble mustard)	Scotch thistle
Carpetweed	Knotweed	Shepherdspurse
Catchweed bedstraw	Lambsquarters	Sneezeweed
Chickweed	Lettuce (wild)	Sow thistle (common)
Cinquefoil	Mudwort	Spanish needles
Cockle	Mallow	Sunflower
Cocklebur	Marshelder	Tansy mustard
Coffeeweed	Marijuana	Tansy ragwort
Croton	Mediterranean sage	Tumbleweed
Dandelion	Miners lettuce	Tumbling pigweed
Devil's claw	Morningglory	Velvetleaf
Docks	(annual)	Vervains
Dogbane	Musk thistle	Vetch
Falseflax	Mustard	Wild carrot
Fleabane (daisy)	Paranip	Wild turnip
Flixweed	Pennycress	Witchweed
Frenchweed	Pepperweed	Wormwood
Galinsoga	Pigweed (redroot)	Yellow starthistle
Goatsbeard	Plantains	
Goosefoot	Prickly lettuce	

PERENNIAL WEEDS

Artichoke	Hemlock	St. Johnswort
Aster	Ironweed	Stinging nettles
Austrian field cress	Leafy spurge	Strawberry (wild)
Binweed	Knapweed	Tall buttercup
Blackeyed Susan	(spotted)	Tan weed
Blue lettuce	(Russian)	Toad flax
Canada thistle	(Diffuse)	Vervains
Catnip	Loco weed	Whitetop
Chicory	Horsetail	(Hoary cress)
Clover (many types)	(Horseweed)	Wild garlic
Goldenrod	Nettles	Wild onion
Ground ivy	Orange hawkweed	Wild paranip
Gumweed	Poverty weed	Wild sweet potatoe
Healall	Rushes	Yellow rocket
	Sowthistle	
	(perennial)	

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Also Certain 2,4-D Susceptible Woody Plants Such As:

Big sagebrush	Locust	Sand Shinnery Oak
Buckbrush	Manzanita	Sumac
Chamise	Poison ivy	Tules (bulrush)
Coastal sage	Poison oak	Willow
Elderberry	Rabbit brush	
Hazel	Sagebrush	

To convert local recommendations into terms of HI-DEP use the following table:

2,4-D Acid:	1 lb	3/4 lb	1/2 lb	3/8 lb	1/4 lb	1/6 lb	1/8 lb
HI-DEP:	2 pt	1 1/2 pt	1 pt	3/4 pt	1/2 pt	3/8 pt	1/4 pt

WHEAT: Perennial broadleaf weeds--Apply 2 pints per acre when weeds are in bud stage, but do not spray grain in the boot to dough stage. The 2 pint (1 pound acid equivalent) per acre application of any 2,4-D product can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatment is suggested to minimize the extent of crop injury.

WHEAT, BARLEY, OATS, RYE: See Table for recommended use rates. Spray after grain begins tillering and before the boot stage (usually 4 to 8 inches tall) and weeds are small. Do not apply before the tiller stage nor from early boot through the milk stage. To control large weeds that will interfere with harvest or to suppress perennial weeds, preharvest treatment can be applied when the grain is in the dough state. Best results will be obtained when soil moisture is adequate for plant growth and weeds are growing well. Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within two weeks of treatment.

CORN: See Table for recommended use rates. Preemergence - Apply to soil anytime after planting but before corn emerges. Do not use on very light, sandy soil. Emergence - Apply just as corn plants are breaking ground. Postemergence - Apply to emerged corn. When corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage. Do not apply from tasseling to dough stage. Injury to corn is most likely to occur if applied when corn is growing rapidly under high temperature and high soil moisture conditions. In such situations, use the low rate of 1/2 pint per acre. After application, delay cultivation, for 8 to 10 days to allow the corn to overcome any temporary brittleness. Preharvest: After the hard dough or denting stage, apply by air or ground equipment to suppress perennial weeds, decrease weed

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seed production and control tall weeds such as bindweed, cocklebur, dogbane, Jimsonweed, ragweed, sunflower, velvetleaf, and vines that interfere with harvesting. NOTE: do not forage or feed corn or fodder for 7 days following application. Note: Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.

WITH LIQUID NITROGEN SOLUTIONS: The compatibility of HI-DEP, water and the liquid nitrogen solution should be determined before combining in the spray tank. The testing can be conducted by mixing all the components in a small container in proportionate quantities. If the mixture separates after standing but can be mixed readily by shaking then the mixture can be used as long as good agitation is maintained. If large flakes, sludges, gels or other precipitates form, or if a separate oily layer or oil globules appear, then the herbicide and the liquid fertilizer should not be used in the same spray tank. For late season control of young Smartweeds, Cocklebur, Annual Morningglory and other broadleaf weeds less than 1 inch high. Field should be as clean as possible and corn 20 to 30 inches tall. Apply 1 pint with 80 to 120 lbs. Nitrogen per acre. The spray MUST be prepared by first adding required amount of liquid nitrogen solution to spray tank. Next dilute 1 pint with 2 quarts of clean water for each acre to be treated with one tankful. Start the tank agitator and SLOWLY add the diluted 2,4-D solution. Spray immediately, maintaining continuous agitation until spray tank is empty. Direct the spray to lower 3" to 4" of corn stalk.

2,4-D
Product

Use spray equipment designated to handle corrosive liquid nitrogen solutions. After spraying remove any remaining solution and rinse spray rig thoroughly with water. Mix only one tank at a time. Do not spray during or immediately following cold weather.

SPRAYING IN SORGHUM (MILO): See Table for recommended use rates. Treat only after sorghum is 6 inches high and preferably before it is 15 inches high. Do not treat during the boot, tasseling or early dough stages. If crop is taller than 8 inches, use drop nozzles to keep the spray off the leaves. Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply under these conditions, use no more than 2/3 pint per acre. NOTE: Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Consult the seed company or your agricultural Experiment Station or Extension Service Weed Specialist for this information.

WEED CONTROL IN RICE: See Table for recommended use rates. Apply in the late tillering stage of rice development, at the time of first joint development (first to second green ring), usually 6 to 9 weeks after emergence. Do not apply after panicle initiation, after rice internodes exceed 1/2 inch, at early seeding, early panicle, boot, flowering, or early heading growth stages. NOTE: Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying, consult local Extension Service or University specialists for appropriate rates and timing of 2,4-D sprays.

① WEED CONTROL IN SUGARCANE: See Table for recommended use rates. Use up to 4 applications per year in accordance with State recommendations.

Apply in spring after cane emerges and through layby.

FALLOW LAND AND STUBBLE: Annual weeds - use 1 to 2 qts/acre. Apply when weeds are actively growing. Perennial weeds - use 2 to 3 qts/acre on weeds such as Canada thistle (apply in late bud or early bloom), field bindweed (50% or greater bloom) and other perennial weeds listed. Do not make application within 90 days of planting or until chemical has disappeared from the soil.

PASTURE AND RANGELAND: Annual weeds - use 1 to 2 qts./acre when weeds are actively growing. Perennial weeds - use 2 to 4 qts./acre when perennial weeds are translocating carbohydrates, i.e. Canada thistle (late bud to early bloom), Bull thistle (bud stage), Musk thistle (spring or fall in rosette or early bud stage), Leafy spurge (4 qts) (early to late bloom), Field bindweed (80% or greater bloom). Higher rates may cause temporary yellowing or grasses.

Do not use on bentgrass, alfalfa, clover, or other legumes. Do not use on newly seeded areas until grass is well established. Do not use from early boot to milk stage where grass seed production is desired.

Do not graze (dairy) cattle in treated areas for 14 days after application. Remove meat animals from freshly treated areas for 7 days before slaughter. Withdrawal is not needed if 2 weeks or more have elapsed since application. Do not cut treated grass for hay within 30 days after application.

STONE FRUIT, NUT AND PISTACHIO ORCHARDS: Broadleaf weeds. Use 1 1/2 qts. in 20 to 50 gals. of water per acre of ground sprayed. For band or spot treatment, calculate rates according to the actual portion of an acre treated. Apply as a directed spray onto the weeds to point of run-off when weeds are young and actively growing (pre-bud to early bud stage). Make up to two applications through the growing season as needed. Do not harvest stone fruits within 40 days of application. Do not harvest nuts and pistachios within 60 days of application. Do not graze or feed cover crops from treated orchards to livestock.

✓ 2. FILBERTS: Sucker Control. Mix 1 quart in 100 gallons of water plus 8 oza. of non-ionic spreader sticker (such as Ortho X-77 or R-11). Spray to run-off when suckers are 6 to 9 inches tall. Spray when needed, from April through August. Use large orifice nozzles (.04 nozzle) and low tank pressure (30-35 lbs) to produce large droplet size. Apply no more than four times per year. Do not harvest filberts within 45 days of last application. Do not allow livestock to graze in treated areas or the feeding of cover crops grown in treated orchards.

PRECAUTIONS IN APPLYING 2,4-D IN ORCHARDS

✓ 3. Apply only after irrigation and allow maximum time before the next irrigation. Do not apply around fruit trees or vines with hand gun. Use only flat, fan-type nozzles and low pressures - 20-30 lbs. Use a fixed boom applicator which can be calibrated and which will deposit the spray uniformly. Avoid contact with fruit, foliage, stems or lower limbs of trees or vines. DO NOT spray bare ground. Apply precisely and uniformly to prevent damage to the trees or vines and to obtain satisfactory weed control. Do not apply during windy periods or extremely high temperatures. In California - not for use in desert valleys or on shallow or sandy soils. Allow maximum time after application and before next irrigation. Late fall applications after harvest and before frost preferred.

AMOUNT OF HERBICIDE TO USE IN CROPS By Air or Ground Application

NOTE Do not apply when weather conditions favor drift from treated areas. Read complete directions and precautions before using.

DOSAGE PER ACRE

CROP	Normal Rates (usually safe to crops)	Higher rates for special situations (more likely to injure crop)
SMALL GRAINS		
Spring postemergence	1/4-1 1/2 pt	2-3 pints
wheat, barley, rye	1/2-1 pint	1 1/2-2 pints
oats		
Preharvest ³ (dough stage)		
wheat, barley, oats, rye	1-2 pints	2-3 pints
CORN¹		
Premergence	2-4 pints	
Emergence ¹	1 pint	1 1/2 pint
Postemergence ¹		
up to 8 inches tall	1/2-1 pint	
8 inches to tasseling		
(use only directed spray)	1 pint	1 1/2-2 1/2 pints
Preharvest ³	1-2 pints	1 1/2-2 1/2 pints
SORGHUM (Milo)¹		
Postemergence		
6 to 8 inches tall	2/3-1 pint	
8 to 15 inches all		
(use only directed spray)	1 pint	1 1/2-2 pints
RICE		
	1-2 1/2 pints	2-3 pints
SUGARCANE		
Fall, after harvest or planting	2-4 pints	
Spring, once or twice before close-in	2-4 pints	
Summer, up to 6 weeks before harvest	2 1/2 pints	

*Delete
Btm*

1 Corn and sorghum varieties vary in tolerance to 2,4-D; some are easily injured. Before spraying, get information on 2,4-D tolerance of specific varieties and spray only those known to be resistant to 2,4-D injury. If plants are more than 8 inches tall, use directed spray and keep spray off corn and sorghum foliage.

✓ 4. 2 These higher rates may be needed to handle difficult weed problems in certain areas such as dry conditions, especially in areas west of the Mississippi River. However, do not use unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service weed specialists for recommendations or suggestions to fit local conditions.

- 3 Apply after the hard dough (corn) or dough stage (wheat) by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf and vines that interfere with harvesting.

✓ 5. CONTROL OF SOUTHERN WILD ROSE: On rangelands, roadsides, and fencerows, use 1 gallon and spray thoroughly as soon as foliage is well developed. Two or more treatments may be required. On rangeland, apply a maximum of 6 quarts per acre per season. See grazing restrictions in pasture and rangeland section above.

GRASS SEED CROPS: Use 1 to 4 pints per acre in spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to the milk stage. Spray seedling grass only after the five-leaf stage, using 3/4 to 1 pint per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4 pints can be used to control hard-to-kill annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth.

NOTE: Do not use on bentgrass unless grass injury can be tolerated. See grazing restrictions in pasture and rangeland section above.

(1) BROADLEAF WEED CONTROL IN NON-CROPLAND GRASS AREAS SUCH AS LAWNS, GOLF COURSES, CEMETERIES AND PARKS, AIRFIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCHBANKS: Use 1 to 3 quarts per acre. Treat when weeds are young and growing well. Usually 2 quarts per acre will provide adequate weed control. Do not use on dichondra or other herbaceous ground covers. Do not use on creeping grasses such as bent except for spot treating nor on freshly seeded turf until grass is well established. Reseeding of lawns should be delayed following treatment. With spring application, reseed in the fall; with fall application, reseed in the spring. Legumes are usually damaged or killed. Deep rooted perennial weeds such as bindweed and Canada thistle may require repeated applications.

SPOT TREATMENT/NON-CROP: Hand held and high volume equipment. For control of weeds listed using backpack sprayers or high volume equipment utilizing hand guns or other nozzle arrangements - Unless otherwise specified, make a 3.3% solution in water and apply to foliage as a coarse spray for general vegetation control. For hard-to-kill woody plants use a 1 1/2% solution. Applications should be made on a spray-to-wet basis and coverage uniform. Do not spray to point of run off. Prepare the spray solution by mixing in water as per the following table:

Desired volume

Amount of HI-DEP

	1/2%	3/4%	1%	1 1/2%
1 gallon	2/3 oz. (4 tsp.)	1 oz. (2 Tbs.)	1 1/2 oz. (8 tsp.)	2 oz. (4 Tbs.)
25 gallons	1 pint	1 1/2 pint	1 quart	1 1/2 qt.
100 gallons	1/2 gallon	3/4 gallon	1 gallon	1 1/2 gal

2 Tablespoons = 1 ounce 1 teaspoon = 1/3 Tablespoon = .15 ounce

For use in knapsack sprayers. Insure mixture is complete by shaking or inverting sprayer several times.

7. GENERAL WEED CONTROL: Roadsides, vacant lots, fence rows and drainage ditchbanks - Use 3/4% solution. turf 1/2 to 1 gallon/100 gallons of water (2 to 4 Tbs per 1 gallon water). Woody Plants: 1 1/2 to 2 ounces per 1 gallon water (1 1/2% solution). Wet thoroughly all parts of the plant and stems to point of run-off.

8. FORESTRY-TREE INJECTION: To control unwanted hardwood trees make injections a near the root collar as possible using one injection pe inch of trunk's diameter at breast height. For resistant species such as hickory, injections should overlap. For best results injections should be made during the growing season - May 15 to October 1.

For Concentrate Injection Use 1 to 2 ml. of Concentrate per injection. The injector bit must penetrate the inner bark.

TANK MIXTURES

HI-DEP can be applied in a tank-mixture with Banvel^R, Glean^R, Igran^R, Lexone^R, Sencor^R, Paraquat^R, Roundup^R or Tordon^R to broaden the spectrum of weed control. In order to assure maximum safety and weed control follow all cautions and limitations on this label and the labels of products used in tank mixtures used with HI-DEP. Where a rate range is given, the rate should be varied depending on the weeds present.

SMALL GRAINS

Products

Rates

HI-DEP + Banvel ^R	1 1/2 pints/A + 2 oz/A
HI-DEP + Glean ^R	1 pint/A + 1/6-1/3 oz/A
HI-DEP + Igran ^R	1 1/2 pints/A + 1/4-1/2 lb a/A
HI-DEP + Lexone ^R or Sencor ^R	1 1/2 pints/A + 1/2 lb a/A

FALLOW

Products

Rates

✓ 9. HI-DEP + Banvel^R
HI-DEP + Roundup^R

3 pints/A + 1 pint/A
1-2 pints/A + 1/2 -1 pint/A

RANGE AND NON-CROP AREAS

Products

Rates

HI-DEP + Banvel^R
HI-DEP + Tordon^R

1-3 quarts/A + 1-2 pints/A
1-2 quarts/A + 1/4 -2 pints/A

Banvel^R is a registered trademark of Velsicol Chemical Corporation.
Glean^R and Lexone^R are registered trademarks of E.I. DuPont de Nemours and Company, Inc.
Igran^R is a registered trademark of ICI-A-GEIGY Corporation.
Sencor^R is a registered trademark of Baychem Corporation.
Roundup^R is a registered trademark of Monsanto Agricultural Products Company.
Tordon^R is a registered trademark of Dow Chemical Company.

WARRANTY:

The manufacturer warrants that the chemical composition conforms to the ingredient statement given on the label and that this product is suited for the labeled uses when applied according to label directions. Because of widely varying use conditions, it is impossible to eliminate all risks even when label directions are followed. Therefore, the manufacturer makes no other implied or express warranty nor is any agent of the manufacturer allowed to do so. Upon purchase of this product, the buyer assumes all risks associated with use of this product. In the event of damage resulting from a breach of warranty the buyer agrees to accept a refund of the purchase price of the product as full discharge of the manufacturer's liability.