PM 23 2217-703

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

10 of 16

8 FEB 1993

James A. Armbruster, Ph.D.
PBI/Gordon Corporation
1217 W. 12th Street
P.O. Box 4090
Kansas City, MO 64101

Dear Dr. Armbruster:

Subject: Revised Label Text - Add Mesquite Management
Acme HI-DEP Herbicide
EPA Registration No. 2217-703
Your Submission Dated November 10, 1992

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provisions:

1) Within footnote #1 for both Chart I and II, remove the statement "Withdrawal is not needed if two weeks or more have elapsed since application."

2) Under the section for High Volume Leaf Stem Treatments, rewrite the limitation for Reclaim Herbicide to read "Do not exceed **one** application of 1 1/3 pints per acre **per year** of Reclaim Herbicide."

A stamped copy is enclosed for your records. Please submit five (5) final printed copies for the referenced label, incorporating the above changes, before releasing the product for shipment.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

CONCURRENCES							
SYMBOL	H7505C						
SURNAME	R. KENNY						
DATE	2/5/93						

EPA Form 1320-1A (1/90) *Printed on Recycled Paper* OFFICIAL FILE COPY

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AFTER TEXT

ACME HI-DEP® HERBICIDE

- KEEP FROM FREEZING –

ACTIVE INGREDIENTS:	
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic acid....	33.2%
Diethanolamine Salt of 2,4-Dichlorophenoxyacetic acid...	16.3%
INERT INGREDIENTS.....	50.5%
TOTAL	100.0%

This Product Contains:
3.8 lbs. 2,4-Dichl ophenoxyacetic acid equivalent per gallon or 38.6%
Isomer Specific by AOAC Methods.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

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

See side panel for additional Precautionary Statements and Statement of Practical Treatment.

NET CONTENTS ____ GALLONS

808/1192 APXXXXXX

8 FEB 1993

EPA REG. NO. 2217-703
EPA EST. NO. 2217-KS-1

Mfd by PBI/GORDON CORPORATION
KANSAS CITY, MISSOURI 64101

STOP! READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.

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 when handling. When handling this product, wear chemical resistant gloves. Wash thoroughly with soap and water after handling. Harmful if swallowed, absorbed through skin or inhaled. Avoid breathing vapor or spray mist. Remove contaminated clothing and wash before reuse.

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 promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. Call a physician at once.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.
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. Do not use this product through any type of irrigation system. Avoid contamination of water supplies that may be used to irrigate or water susceptible crops, or to be used for domestic purposes. This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water except as specified on this label. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Do not apply in any manner not specified on this label.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

DIRECTIONS FOR USE

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

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.

Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require more restrictive reentry 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. Advise workers to stay out of fields during application and until sprays have dried. Regular long- sleeved work clothing should be worn when working in treated fields. See Precautionary Statements, Statement of Practical Treatment and Note to Physician for information on accidental exposures.

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 warnings must include the following information: DANGER - PELIGRO, area treated with ACME HI-DEP HERBICIDE, date of application, appropriate protective clothing, and reentry interval (i.e. until sprays have dried). See Precautionary Statements, Statement of Practical Treatment and Note to Physician for information on accidental exposures.

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 acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law and may contaminate groundwater. 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: For plastic container, 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. For metal drums, triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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.

NOTICE TO USER: This product must be applied in compliance with the pesticide regulations of the state in which application in made. Check with local authorities regarding regulations which may affect the application of this product.

- 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.

AIRCRAFT SPECIFICATIONS (FIXED WING OR ROTARY WING): 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 BECO-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 APPLICATION: 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.

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Use ACME HI-DEP HERBICIDE to control many broadleaf weeds including:

- PERENNIAL WEEDS -

Artichoke
Aster
Austrian fieldcress
Bindweed
Blackeyed susan
Blue lettuce
Canada thistle
Catnip
Chicory
Clover(many types)
Coffeeweed
Dandelion
Docks
Dogbane
Goldenrod
Ground Ivy
Healall
Hemlock
Ironweed
Leafy spurge
Knapweed(Spotted,
Russian, Diffuse)
Locoweed
Mugwort
Nettles
Orange hawkweed
Povertyweed
Rushes
Sowthistle
St. Johnswort
Stinging nettles
Strawberry (wild)
Tall buttercup
Tansweed
Toad flax
Vervains
Whitetop
(Hoary cress)
Wild garlic
Wild onion
Wild sweet potato
Yellow rocket

- ANNUAL AND BIENNIAL WEEDS -

Beggarticks
Bitterweed
Black medic
Broomweed
Bull thistle
Burdock
Carpetweed
Catchweed bedstraw
Chickweed
Cinquefoil
Cockle
Cocklebur
Croton
Devilsclaw
Falseflax
Fleabane (Daisy)
Flixweed
Frenchweed
Galinsoga
Goatsbeard
Goosefoot
Groundsel
Gumweed
Henbit
Jewelweed
Jimsonweed
Jim Hill mustard
(Tumble mustard)
Knotweed
Lambsquarters
Lettuce (wild)
Mallow
Marestail
(Horseweed)
Marshelder
Marijuana
Mediterranean sage
Miners lettuce
Morningglory
(annual)
Musk Thistle
Mustard
Parsnip
Pennycress
Pepperweed
Pigweed (redroot)
Plantains
Prickly lettuce
Primrose
Puncturevine
Radish (wild)
Ragweed
Russian thistle
Scotch thistle
Shepherdspurse
Sneezeweed
Sow thistle
(common)
Spanishneedles
Sunflower
Tansy mustard
Tansy ragwort
Tumbleweed
Tumble pigweed
Velvetleaf
Vetch
Wild carrot
Wild parsnip
Wild turnip
Witchweed
Wormwood
Yellow starthistle

ALSO CERTAIN 2,4-D SUSCEPTIBLE WOODY PLANTS SUCH AS:

Big sagebrush
Buckbrush
Chamise
Coastal sage
Elderberry
Hazel
Locust
Manzanita
Poison ivy
Poison oak
Rabbitbrush
Sagebrush
Sand shinnery oak
Sumac
Tules (Bulrush)
Willow

To convert local recommendations into terms of ACME HI-DEP HERBICIDE use the following table: 6 of 16

2,4-D Acid: (equivalent)	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.

TIMING OF APPLICATION MAY VARY – Your State Agricultural Extension Service may have information on the correct application time for your area.

WHEAT, BARLEY, OATS, RYE: See Table 1 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, preharvest treatment can be applied when the grain is in the dough stage. 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.

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.

CORN: See Table 1 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 and direct spray from corn plant. 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 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 hybrids known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station of Extension Service Weed Specialist for this information.

WITH LIQUID NITROGEN SOLUTIONS: The compatibility of ACME HI-DEP HERBICIDE, water, and the liquid nitrogen solutions 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 morninggiory 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. 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.

SORGHUM (MILO): See Table 1 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 pints per acre. NOTE: Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only hybrids 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.

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.

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

- TABLE 1 - 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.

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

[1] Corn and sorghum hybrids vary in tolerance to 2,4-D; some are easily injured. Before spraying, get information on 2,4-D tolerance of specific hybrids 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 off corn and sorghum foliage.

[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.

FALLOW LAND AND STUBBLE: Annual weeds – Use 1 to 2 quarts/acre. Apply when weeds are actively growing. Perennial weeds – Use 2 to 3 quarts/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 soil.

PASTURE AND RANGELAND: Annual weeds – use 1 to 2 quarts/acre. Apply when weeds are actively growing. Perennial weeds – use 2 to 4 quarts/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 quarts) (early to late bloom). Field bindweed (80% or greater bloom). Higher rates may cause temporary yellowing of grasses.

On pastures and rangeland, apply a maximum of 6 quarts of product per acre per season.

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.

Observe these intervals:

1. A 7 day pregrazing interval for dairy cattle.
2. A 30 day preharvest interval for grass cut for hay.
3. A preslaughter interval for meat animals of 3 days.

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 pastures and rangelands, apply a maximum of 6 quarts per acre per season. See grazing restrictions in pasture and rangeland section above.

- MESQUITE MANAGEMENT IN PERMANENT GRASS PASTURES AND RANGELANDS -

ACME HI-DEP(R) HERBICIDE and three tank mixtures have proven effective on mesquite in pastures and rangelands in Texas, Oklahoma, Arizona, and New Mexico. ACME HI-DEP HERBICIDE can be tank-mixed with RECLAIM(R) HERBICIDE, REMEDY(R) RANGE AND PASTURE HERBICIDE, and GRAZON(R) PC HERBICIDE for use on pastures and rangelands in accordance with the most restrictive of label limitations and precautions. No label dosages should be exceeded.

ACME HI-DEP HERBICIDE, RECLAIM HERBICIDE, and REMEDY RANGE AND PASTURE HERBICIDE are classified as General Use Pesticides. However, GRAZON PC HERBICIDE is classified as a Restricted-Use Pesticide. Two terms of the restrictions include the following:

> For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicators certification. Commercial certified applicators must also ensure that all persons involved in those activities are informed of the precautionary statements.

APPLICATION SCHEDULE: The appropriate growth stage of mesquite for effective control occurs in the spring or early summer after the mesquite has fully leafed out and has turned dark green in color. Do not apply when the mesquite beans are elongating. The best environmental conditions include soil temperatures above 75°F (24°C) at the depth of 12 to 18 inches and adequate soil moisture for plant growth.

BROADCAST APPLICATION WITH AERIAL EQUIPMENT: DOSAGE RATES–Refer to Chart I for the broadcast rates of ACME HI-DEP HERBICIDE and tank mixtures applied with aerial equipment.

SPRAY VOLUMES -- For aerial application of ACME HI-DEP HERBICIDE alone, use a total spray volume of 0.5 to 4.0 gallons per acre (gpa). For aerial application of the tank mixtures, use a minimum spray volume of 2.0 gallons per acre; for South Texas mixed brush 4 gallons per acre are recommended. Refer to Chart I for specific instructions.

SPRAY PREPARATION -- ACME HI-DEP HERBICIDE diluted with water forms a solution. Agricultural surfactants such as ORTHO X-77 are recommended for tank mixtures with water alone. Drift control additives such as NALCO-TROL or GORDON'S DRIFT RETARDANT may be used in reducing drift. Refer to Chart I for specific instructions.

Oil in water emulsions may increase the effectiveness of the tank mixtures when compared to spray mixtures with water alone. Oil in water emulsions include oil (diesel fuel, kerosene, fuel oil, or mineral oil), an emulsifier, and the herbicides. Prepare an oil-water emulsion with a 1:5 ratio by adding a pre-mix of oil and emulsifier to the total spray mixture at the ratio of 1 part oil to 5 parts of water. Do not use more than one gallon of oil per acre. Always use a jar test to check compatibility before preparing tank mixtures. Emulsifiers such as SPONTO 712, TRITON X-100, or RANGELAND SPRAMATE must be used for adequate stability in oil-water emulsions. Drift control agents such as NALCO-TROL or GORDON'S DRIFT RETARDANT may be used in reducing drift. Refer to Chart I for specific instructions.

HARVEST AND GRAZING INTERVALS: Refer to Chart I.

CHART I - Tank Mixture Recommendations for foliar broadcast treatments using AERIAL EQUIPMENT.

Product Name	Restricted Use	Approved States	Amount of Product: Quarts per acre	Amount of Product: Pounds a.i./acre	Spray Volume: gpa	Spray Preparations: Water Solutions: Agricultural Surfactants % vol./vol.[5]	Spray Preparations: Water Solutions: Drift Control Additives	Spray Preparations: Oil:Water E: Ratio of Oil to Water	Spray Preparations: Oil:Water E: Emulsif
HI-DEP	No	New Mexico Oklahoma Texas Arizona	2.0	1.9	>1/2 to 4	———	———	———	———
HI-DEP plus RECLAIM HERBICIDE	No	New Mexico Oklahoma Texas	1.0 0.34-0.67	0.95 0.25-0.50	≥2	0.25% v/v	Nalco-Trol or equivalent	1:5	Sponto or Triton X
HI-DEP plus REMEDY RANGE AND PASTURE HERBICIDE	No	New Mexico Oklahoma Texas Arizona	1.0 0.50	0.95 0.50	≥2 and ≥4 for South Texas Mixed Brush	0.25% v/v	Nalco-Trol or equivalent	1:5	Rangel Spra-M Sponto Triton X
HI-DEP plus GRAZON PC HERBICIDE	Yes	New Mexico Oklahoma Texas	1.0 0.5-1.0	0.95 0.25-0.50	≥2 and ≥4 for South Texas Mixed Brush	0.50% v/v	Nalco-Trol or equivalent	1:5	Sponto or Triton X

1) Observe these intervals.
   1. A 7 day pregrazing interval for dairy cattle.
   2. A 30 day preharvest interval for grass cut for hay.
   3. A preslaughter interval for meat animals of 3 days. ~~Withdrawal is not needed if two weeks or more have elapsed since applicat~~
2) Do not spray pastures containing desirable forbs, especially legumes, unless injury to such plants can be tolerated. Do not treat treatments are not recommended. Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas witho on an untreated pasture.
3) Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or loss of plants can be tolera treated forage at least 3 days before slaughter during the year of treatment. Do not graze lactating dairy animals on treated treatment. Do not harvest grass for hay from treated areas for one year following treatment.
4) Do not transfer livestock from treated areas onto broadleaf crop areas without first allowing 7 days of grazing on untreated gra may contain enough picloram to cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume compon HERBICIDE may injure or kill legumes. Also, new legume seedings may not be successful if made within 2 years following appl not treat with GRAZON PC HERBICIDE (Picloram) more than once a year. Maximum application rate for GRAZON PC HERBICID (0.5 lbs. ae/A).
5) Use non-ionic agricultural surfactants such as ORTHO X-77 or equivalent products.

surfactants such as ORTHO X-77 are recommended for tank mixtures with water alone. Drift control additives such as NALCO-TROL or GORDON'S DRIFT RETARDANT may be used in reducing drift. Refer to Chart II for specific instructions.

Oil in water emulsions may increase the effectiveness of the tank mixtures when compared to spray mixtures with water alone. Oil in water emulsions include oil (diesel fuel, kerosene, fuel oil, or mineral oil), an emulsifier, and the herbicides. The amount of oil in the spray mixture will range from 5 to 20 percent of the total spray mixture, and the maximum rate of oil should not exceed 1 gallon per acre. Emulsifiers such as SPONTO 712, TRITON X-100, or RANGELAND SPRAMATE must be used for adequate stability in oil-water emulsions. Drift control agents such as NALCO-TROL or GORDON'S DRIFT RETARDANT may be used in reducing drift. Always use a jar test to check compatibility before preparing tank mixtures. Refer to Chart II for specific instructions.

HARVEST AND GRAZING INTERVALS: Refer to Chart II.

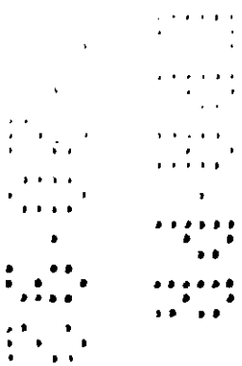

CHART II - Tank Mixture Recommendations for foliar broadcast treatments using GROUND EQUIPME

Product Name	Restricted Use	Approved States	Amount of Product: Quarts per acre	Amount of Product: Pounds a.i./acre	Spray Volume: gpa	Spray Preparations: Water Solutions: Agricultural Surfactants % vol./vol.[5]	Spray Preparations: Water Solutions: Drift Control Additives	Spray Preparations: Oil:Water Em: Percentage of Oil to Total Spray Mixture	Spray Preparations: Oil:Water Em: Emu
HI-DEP	No	New Mexico Oklahoma Texas Arizona	2.0	1.9	1-10	----------	----------	----------	---
HI-DEP plus RECLAIM HERBICIDE	No	New Mexico Oklahoma Texas	1.0 0.34-0.67	0.95 0.25-0.50	10-20	0.25% v/v	Nalco-Trol or equivalent	5-10% with maximum of 1 gallon of oil per acre	Spor or Triton
HI-DEP plus REMEDY RANGE AND PASTURE HERBICIDE	No	New Mexico Oklahoma Texas Arizona	1.0 0.50	0.95 0.50	>10	0.50% v/v	Nalco-Trol or equivalent	5-10% with maximum of 1 gallon of oil per acre	Rang Spra Spor Triton
HI-DEP plus GRAZON PC HERBICIDE	Yes	New Mexico Oklahoma Texas	1.0 0.5-1.0	0.95 0.25-0.50	10-25	0.50% v/v	Nalco-Trol or equivalent	15-20% with maximum of 1 gallon of oil per acre	Spor or Triton

1) Observe these intervals.
   1. A 7 day pregrazing interval for dairy cattle.
   2. A 30 day preharvest interval for grass cut for hay.
   3. A preslaughter interval for meat animals of 3 days. ~~Withdrawal is not needed if two weeks or more have elapsed since appl~~
2) Do not spray pastures containing desirable forbs, especially legumes, unless injury to such plants can be tolerated. Do not t treatments are not recommended. Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas wi on an untreated pasture.
3) Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or loss of plants can be tol treated forage at least 3 days before slaughter during the year of treatment. Do not graze lactating dairy animals on treat treatment. Do not harvest grass for hay from treated areas for one year following treatment.
4) Do not transfer livestock from treated areas onto broadleaf crop areas without first allowing 7 days of grazing on untreated may contain enough picloram to cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume comp HERBICIDE may injure or kill legumes. Also, new legume seedings may not be successful if made within 2 years following a not treat with GRAZON PC HERBICIDE (Picloram) more than once a year. Maximum application rate for GRAZON PC HERBIC (0.5 lbs. ai/A).
5) Use non-ionic agricultural surfactants such as ORTHO X-77 or equivalent products.

Spray volumes will depend upon the density and height of the mesquite plants. Thorough coverage of the leaves, stems, trunks, and root collars is essential. Apply as a spray-to-wet application for the best results. However, do not exceed the application of 1 1/3 pints per acre of RECLAIM HERBICIDE.

Chart III. Spray Preparation Chart for Mixing 100 Gallons of Spray Solution.

Spray Concentration (% vol/vol) and Type	Amounts of Products to Make 100 Gallons of Spray Solution					
	HI-DEP Gallons	RECLAIM Gallons	Water Gallons	Oil[1)] Gallons	ORTHO X-77[2)] Gallons	Emulsifier[3)] Gallons
2.0% water dilution	2.0	—	98.0	—	—	—
1.0% + (0.5 to .75%) water dilution	1.0	0.5 - 0.75	98.0 - 98.25	—	0.25	—
1.0% + (0.5 to 0.75%) oil-water emulsion	1.0	0.5 - 0.75	93.1 - 93.40	5.0	—	0.12

1) Add oil to the total spray mixture at the rate of 5% (vol./vol.), but do not use more than 1 gallon of oil per acre for this oil-water emulsion.
2) Non-ionic agricultural surfactants may be substituted for ORTHO X-77.
3) TRITON X-100, SPONTO 712, or other emulsifiers are added at the rate of 3 fluid ounces per gallon of oil.

Observe these grazing and harvest intervals for ACME HI-DEP HERBICIDE treatments.

A 7 day pregrazing interval for dairy cattle.
A 30 day preharvest interval for grass cut for hay.
A preslaughter interval for meat animals of 3 days.

Observe these additional precautions for ACME HI-DEP HERBICIDE and RECLAIM HERBICIDE combinations.

Do not spray pastures containing desirable forbs, especially legumes, unless injury to such plants can be tolerated.
Do not treat more than once a year. Fall treatments are not recommended. Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without allowing 7 days of grazing on an untreated pasture.

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.

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 bentgrass 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 knapsack sprayers or high volume equipment utilizing hand guns or other nozzle arrangements -- Unless otherwise specified, make a 3/4% 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	SPRAY CONCENTRATION 1/2%	3/4%	1%	1 1/2%
1 gallon	2/3 fluid ounce (4 teaspoons)	1 fluid ounce (2 Tablespoons)	1-1/3 fluid ounces (8 teaspoons)	2 fluid ounces (4 Tablespoons)
25 gallon	1 pint	1 1/2 pint	1 quart	1 1/2 quart
100 gallon	1/2 gallon	3/4 gallon	1 gallon	1 1/2 gallon

2 Tablespoons = 1 fluid ounce
1 Teaspoon = 1/3 Tablespoon = 0.17 fluid ounce

When using in knapsack sprayers, insure mixture is complete by shaking or inverting sprayer several times.

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 (4 to 8 teaspoons per 1 gallon water). Woody Plants -- 1 1/2 to 2 fluid ounces per 1 gallon water (1 1/2% solution). Wet thoroughly all parts of the plant and stems to point of run-off.

TANK MIXTURES FOR SMALL GRAINS, FALLOW, AND RANGE/NONCROPLAND:ACME HI-DEP HERBICIDE can be applied as a tank-mixture with BANVEL(R), GLEAN(R), LEXONE(R), SENCOR(R), ROUNDUP(R), or TORDON(R) to broaden the spectrum of weed control. In order to assure maximum safety and weed control follow all precautions and limitations on this label and the labels of products used in tank mixtures with ACME HI-DEP HERBICIDE. Where a rate range is given, the rate should be varied depending on the weeds present.

SMALL GRAINS:

Products	Rates
HI-DEP + GLEAN(R)*	1 pint/A + 1/6 to 1/3 ounce/A
HI-DEP + LEXONE(R) or SENCOR(R)	1 1/2 pints/A + 1/2 lb.ai/A

*February 1991 - GLEAN(R) has been withdrawn from Colorado, Minnesota, Montana, Nebraska Panhandle, North Dakota, South Dakota, and Wyoming. Still available in South Central Plains and Pacific Northwest.

FALLOW:

Products	Rates
HI-DEP + BANVEL(R)	3 pints/A + 1 pint/A
HI-DEP + ROUNDUP(R)	1 to 2 pints/A + 1/2 to 1 pint/A

RANGE AND NON-CROPLAND AREAS:

Products	Rates
HI-DEP + BANVEL(R)	1 to 3 quarts/A + 1 to 2 pints/A
HI-DEP + TORDON(R)	1 to 2 quarts/A + 1/4 to 2 pints/A

STONEFRUIT, NUT AND PISTACHIO ORCHARDS: Broadleaf weeds. Use 1 1/2 quarts in 20 to 50 gallons 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 stonefruits 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.

FILBERTS: Sucker Control. Mix 1 quart in 100 gallons of water plus 8 fluid ounces 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 (0.04 nozzle) and low tank pressure (30 to 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: 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 to 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.

CONTROL OF WOODY PLANTS OR BRUSH AND BROADLEAF WEEDS ON ROADSIDES, DRAINAGE DITCHBANKS, RIGHTS-OF-WAY, RAILROADS FIREBREAKS, FORESTS (Forest Site Prep), FENCEROWS, INDUSTRIAL SITES & OTHER SIMILAR NON-CROP AREAS:

HIGH VOLUME: Mix at the rate of 1 to 2 gallons per 100 gallons of water (1 to 2% solution). Rate per acre depends on the density of brush and/or weeds. For small broadleaf weeds use the lower rate. Heavy dense stands of brush require the high rate with higher water volume. For small applications with small tank sprayers use at the rate of 1.25 to 2.5 ounces per gallon of water.

To effectively control brush, all leaves, stems and suckers should be thoroughly wetted to the ground. Apply when plants come into full leaf (spring) to the time plants begin to go dormant. Best results are obtained when brush and broadleaf weeds are young and actively growing. Do not cut brush until the herbicide has translocated throughout the plant causing root death. DO NOT APPLY as a stand release or cover spray to established conifers as injury may result.

AERIAL APPLICATIONS:

Forestry Site Preparation -- For use in dessication/controlled burning programs, use 1/2 to 2 gallons of ACME HI-DEP HERBICIDE in tank mixes with other herbicides labeled for forestry site preparation (e.g., GARLON, TORDON, ARSENAL). Use sufficient water to achieve uniform wetting of target brush species. Do not exceed 25 gallons total spray per acre.

Utility & Pipeline rights-of-way -- Use 1/2 to 2 gallons of ACME HI- DEP HERBICIDE in tank mix combination with other herbicides labeled for rights-of-way sites and apply in a total spray volume of 5 to 30 gallons per acre.

TANK MIXTURES FOR INDUSTRIAL/NON-CROPLAND AREAS: ACME HI-DEP HERBICIDE can be applied as a tank mixture with other recommended herbicides such as GARLON(R), TORDON(R), and BANVEL(R) to broaden the spectrum of control. In order to assure maximum safety and weed control, follow all precautions and limitations on this label and the labels of products used in tank mixtures with ACME HI-DEP HERBICIDE. Where a rate range is given, the rate should be varied according to the density and target species.

Products	Rates
HI-DEP + GARLON(R) 3A	1/2 to 2 gallon/A + 1/2 to 1 gallon/A
HI-DEP + GARLON(R) 4E	1/2 to 2 gallon/A + 2 to 4 quarts/A
HI-DEP + TORDON(R) K	1/2 to 2 gallon/A + 1/2 to 4 quarts/A
HI-DEP + BANVEL(R)	1/2 to 2 gallon/A + 1 quart to 2 gallon/A

FOREST-TREE INJECTION: To control unwanted hardwood trees make injections as near the root collar as possible using one injection per 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.

LEAFY SPURGE CONTROL IN COLORADO, IDAHO, MINNESOTA, MONTANA, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA, WASHINGTON AND WYOMING: ACME HI-DEP HERBICIDE is recommended for use in combination with TORDON(R) or BANVEL(R) for the suppression and/or control of leafy spurge on industrial non-cropland sites in Colorado, Idaho, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Washington and Wyoming.

HOW TO USE: Apply 1 to 2 quarts of ACME HI-DEP HERBICIDE in combination with 1 quart of TORDON, or 2 quarts of ACME HI-DEP HERBICIDE plus 2 quarts of BANVEL, or 2 quarts of ACME HI-DEP HERBICIDE plus 1 pint of TORDON plus 1 quart of BANVEL.

Rates are on a per acre basis. Mix with water, 1 to 10 gallons per acre minimum with conventional equipment. Use nozzle systems capable of spraying correct gallonage. Add a non-ionic surfactant such as GORDON'S STAYPAR(R) at 0.25% by volume (1 quart per 100 gallons of solution).

IMPORTANT: BEFORE USING ACME HI-DEP HERBICIDE, TORDON AND/OR BANVEL IN THESE COMBINATIONS, READ AND CAREFULLY OBSERVE THE PRECAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABELS.

LIMITED WARRANTY AND DISCLAIMER. The manufacturer warrants only that the chemical composition of this product conforms to the ingredient statement given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use.

THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE EXPRESSLY DISCLAIMED. This limited warranty does not extend to the use of the product inconsistent with label instructions, warnings or cautions, or to use of the product under abnormal conditions such as drought, excessive rainfall, tornadoes, hurricanes, etc. These factors are beyond the control of the manufacturer or the seller. Any damages arising from a breach of the manufacturer's warranty shall be limited to direct damages, and shall not include indirect or consequential damages such as loss of profits or values, except as otherwise provided by law.

The terms of this Limited Warranty and Disclaimer cannot be varied by any written or verbal statements or agreements. No employee or agent of the seller is authorized to vary or exceed the terms of this Limited Warranty and Disclaimer in any manner.

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