UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Reg # 2217-703 PM-23 19 26

17 SEP 1993

Dr. James A. Armbruster
1217 West 12th Street
P.O. Box 4090
Kansas City, Missouri 64101

Dear Dr. Armbruster:

Subject: Label Amendment - Corn and Sorghum Pre-plant Use
Acme Hi-Dep Herbicide
EPA Registration Number 2217-703
Your Submission Dated April 14, 1993

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

1. Under "Corn: Pre-plant applications for no-tillage and reduced tillage corn" delete the 4 pints application rate. The maximum application rate should be 2 pints of product per acre.

2. Under "Sorghum (Milo): Pre-plant applications for no-tillage and reduced tillage grain sorghum (Milo)" delete the 3 pints application rate. The maximum application rate should be 1.5 pints of product per acre.

This acceptance of your label does not relieve you of any obligation to comply with the Worker Protection Standard (WPS). Under the WPS labeling regulations at 40 CFR part 156, subpart K, § 156.200(c)(3), you are prohibited from distributing or selling any product within the scope of the WPS requirements after April 21, 1994, without amended labeling accepted by the Agency.

A stamped copy of the labeling is enclosed for your records. Please submit three (3) copies of final printed labeling with the above corrections made.

Sincerely yours,

Joanne I. Miller
Product Manager (22)
Fungicide-Herbicide
Registration Division (H7505C)

Enclosure

CONCURRENCES								
SYMBOL	H7505C							
SURNAME	Robbins							
DATE	9/16/93							

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

U.S. GPO : 1986-159-319

DRAFT TEXT 4/9/93

ACME HI-DEP® HERBICIDE

Hi-Dep® consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with aerial and ground equipment.

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-Dichlorophenoxyacetic 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.

KEEP FROM FREEZING

NET CONTENTS _____ GALLONS

ACCEPTED
with COMMENTS
In EPA Letter Dated:
17 SEP 1993
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
2217-703

808/493 AP

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

Mfd by
PBI/GORDON CORPORATION
KANSAS CITY, MISSOURI 64101

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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 hand ٦. Harmful if swallowed, absorbed through skin or inhaled. Avoid breathing vapor or spray mist.

When mixing, loading or applying this product or repairing or cleaning equipment used with this product, wear eye protection (face shield or safety glasses), chemical resistant gloves, long-sleeved shirt, long pants, socks and shoes. It is recommended that safety glasses include front, brow and temple protection. For aerial applicators in an enclosed cockpit and applicators applying this product from a tractor that has a completely enclosed cab, eye protection is not required.

Wash hands, face and arms with soap and water as soon as possible after mixing, loading or applying this product. Wash hands, face and arms with soap and water before eating, smoking or drinking. Wash hands and arms before using toilet. After work, remove all clothing and shower using soap and water. Do not reuse clothing worn during the previous day's mixing and loading or application of this product without cleaning first. Clothing must be kept and washed separately from other household laundry. Remove saturated clothing as soon as possible and shower.

Containers over 1 gallon and less than 5 gallons in capacity: Persons engaged in open pouring of this product must also wear coveralls or a chemical resistant apron.

Containers of 5 gallons or more in capacity: A mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

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 muco al 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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment, restricted-entry interval, and notification to workers.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For aerial applicators, flaggers must wear chemical resistant headgear.

For any requirements specific to your State, consult the agency in your State responsible for pesticide regulation.

Do not enter or allow worker entry into treated areas during the restricted-entry interval of 48 hours. For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: coveralls, chemical resistant gloves, socks and shoes, face shield or safety glasses, and protective headgear for aerial applications.

STORAGE & DISPOSAL

STORAGE: Store in original container in a locked storage area inaccessible to children or pets. Keep from freezing.

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.

PRECAUTION FOR PAINTS AND COATINGS OF AUTOMOBILES AND OTHER VEHICLES: Undiluted spray droplets may damage the paint, coating, or finish of vehicles. Vehicles should not be sprayed. If accidental exposure does occur, then the vehicle should be washed before the spray droplets dry.

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 -

Hi-Dep® consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with aerial and ground equipment.

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 with conventional equipment. Low spray volumes (1 to 5 gallons per acre) may provide more effective weed control and better economy. Use nozzle systems capable of spraying correct gallonage with boom pressures of 25 psi or less.

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WEEDS CONTROLLED LIST

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

- PERENNIAL WEEDS -

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

- ANNUAL AND BIENNIAL WEEDS -

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

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

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

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

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.

TANK MIXTURES FOR SMALL GRAINS: HI-DEP® can be applied as a tank-mixture with GLEAN® 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 HI- DEP®.

SMALL GRAINS:

Products	Rates
HI-DEP® + GLEAN®	1 pint/A + 1/6 to 1/3 ounce/A

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

CORN: PREPLANT APPLICATIONS FOR NO-TILLAGE AND REDUCED TILLAGE CORN

Hi-Dep® may be applied prior to planting corn with conservation tillage systems. In no-tillage or reduced tillage systems where corn is planted in previous crop residues, established sod, stale seedbeds, or broadleaf cover crops, Hi-Dep® will control susceptible broadleaf weeds and certain cover crops, Hi-Dep® will not control unemerged broadleaf weeds and may not control the regrowth of certain perennial weeds.

To control emerged and actively growing broadleaf weeds, apply 2 to 4 pints of product per acre with spray volumes of 1 to 10 gallons per acre with ground equipment prior to planting. For less susceptible weeds, use the higher dosage rates.

To control established legume sod (alfalfa and red clover) or legume cover crops, apply 3 to 4 pints of product per acre with spray volumes of 1 to 10 gallons per acre with ground equipment. Allow 4 to 6 inches of growth for alfalfa and red clover prior to the herbicide application. For improved control of these legumes, Banvel ® Herbicide or Clarity™ Herbicide tank mixtures are recommended.

Tank Mixtures for Pre-plant Applications for No-tillage and Reduced Tillage Corn.

Hi-Dep®, a mixed amine salt of 2,4-D, may be applied in combination with one or more of the following herbicides for improved control of broadleaf weeds. These tank mixtures must be used according to the most restrictive label limitations and precautions. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions for use, dosage rates, and application schedules. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographic regions may have established dosage rate limitations. Consult your state pesticide control agency for additional information regarding the maximum use rates.

This product may be tank mixed with these herbicides for pre-plant applications for corn with conservation tillage systems:

Common Name	Trade Names
alachlor	Lasso (R) Micro-Tech Herbicide
	Partner™ WDG Herbicide
	Lasso (R) Herbicide
alachlor and atrazine	Bullet (R) Herbicide
	Lariat (R) Flowable Herbicide
atrazine	AAtrex (R) Nine-O (R)
atrazine and cyanazine	Extrazine (R) II DF Herbicide Dispersible Granule
atrazine and dicamba	Marksman (R) Herbicide
atrazine and metolachlor	Bicep (R) 6L Herbicide
cyanazine	Bladex (R) 90 DF
cyanazine and metolachlor	Cycle (R) Herbicide
dicamba	Banvel (R) Herbicide
	Clarity ™ Herbicide
glyphosate	Roundup (R) Herbicide
metolachlor	Dual (R) Herbicide
paraquat	Gramoxone (R) Extra Herbicide

MIXING INSTRUCTIONS FOR FERTILIZER/HERBICIDE COMBINATIONS FOR CORN.

HI-DEP®, a mixed amine salt of 2,4-D, can be tank-mixed with fluid fertilizers. Fertilizer solutions and fertilizer suspensions will vary in density, viscosity, and nutrient analysis and will react differently than water in tank-mixture combinations. Because manufacturers may change formulations, the compatibility of tank-mixture combinations needs to be verified on a small scale before the tank-mixtures are prepared for field applications. ALWAYS CONDUCT A "JAR TEST" FOR COMPATIBILITY BEFORE PREPARING TANK MIXTURES.

The "jar test" can be conducted by mixing all components in a small container in proportionate quantities. If the mixture separates after standing and can be mixed readily by shaking, then the mixture can be used and applied with spray equipment providing continuous agitation. 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 prepared as a tank mixture.

ALWAYS PRE-MIX HI-DEP® WITH WATER BEFORE ADDING TO FLUID FERTILIZERS. For liquid nitrogen solutions such as U.A.N., use a pre-mix of 1 part of HI-DEP® with 4 parts of water or use a pre-mix with a 1:4 ratio of product to water. For other fluid fertilizers such as suspensions, use a pre-mix of 1 part of HI-DEP® with 50 to 60 parts of water.

Use fluid fertilizers at rates and application schedules that are recommended by the agricultural extension service specialist or fertilizer suppliers.

Use the application schedules and the dosage rates of HI-DEP® for corn production presented in Table 1.

PREEMERGENCE -- See Table 1 for recommended use rates. Apply to soil anytime after planting but before corn emerges.

EMERGENCE -- Apply just as corn plants are breaking ground. See Table 1 for recommended use rates.

POST-EMERGENCE --

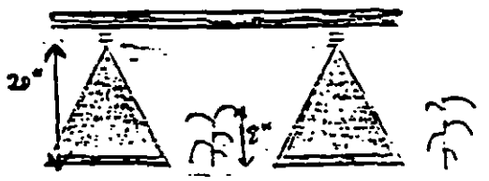
1. EARLY POST EMERGENCE: CORN HEIGHT UP TO 8 INCHES, OR FROM THE SPIKE STAGE UNTIL 5-LEAF CORN, OR UP TO 3 WEEKS AFTER EMERGENCE.

   Apply 0.5 to 1.0 pints of HI-DEP® per acre as a broadcast treatment. 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 broadcast rate of 1/2 pint per acre. Delay cultivation for 8 to 10 days after application to allow the corn to overcome any temporary brittleness.

2.. LATE POST EMERGENCE: CORN HEIGHT GREATER THAN 8 INCHES, OR FROM 6-LEAF CORN UNTIL TASSELING, OR LATER THAN 3 WEEKS AFTER EMERGENCE.

   Use nozzle extensions or drop nozzles for a directed spray to the "inter-row" areas only (See Diagram 1). Ensure uniform coverage of target weeds. Direct the spray beneath the corn canopy away from base of the corn plants. Minimize the coverage of the corn leaves and avoid spray deposits in the whorl. Do not apply from tasseling to the hard dough or denting stage.

   Diagram 1: Spray pattern of an even spray nozzle for inter-row applications.



The broadcast dosage rates presented in Table 1 must be adjusted for this "inter-row" application. Specifically, multiply the broadcast dosage rate shown in Table 1 times the fraction of the row width covered by the spray pattern. Or, use the formulas below to compute the proper dosage rate and spray volumes for this inter-row method of application.

$$\text{Dosage Rates per Treated Acre} = \frac{\text{Spray band width, inches}}{\text{Row width, inches}} \times \text{Broadcast Dosage Rate per Acre}$$

$$\text{Spray Volume per Treated Acre} = \frac{\text{Spray band width, inches}}{\text{Row width, inches}} \times \text{Broadcast Spray Volume per Acre}$$

TANK MIXTURES FOR EARLY POSTEMERGENCE AND LATE POST-EMERGENCE APPLICATIONS TO CORN.

Hi-Dep®, a mixed amine salt of 2,4-D, may be applied in combination with one or more of the following herbicides for improved control of broadleaf weeds. These tank mixtures must be used according to the most restrictive label limitations and precautions. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions for use, dosage rates, and application schedules. Tank mixture recommendations are for use only in states where the companion products and application site are registered.

Product Name	Early Post-Emergent Applications Amount of Product Pints per Acre	Pounds ai/acre	Late Post-Emergent Applications Amount of Product Pints per Acre	Pounds ai/acre
Hi-Dep® plus	not recommended		1/4pint	0.125
Banvel® Herbicide			1/2 pint	0.25
Hi-Dep® plus	1/8 to 1/2 pint	.06-.25	1/4 to 1/2 pint	.125-.25
Buctril® Brand Herbicide	1 pint	0.25	1 1/2 pints	0.38

PREHARVEST

After the hard dough or denting stage, apply 1 to 2 1/2 pints of Hi-Dep® as a broadcast treatment with air or ground equipment. High dosage rates (1 1/2 to 2 1/2 pints of product per acre) are recommended to suppress bindweed, cocklebur, dogbane, sunflower, and velvetleaf that may interfere with harvesting. NOTE: Do not forage or feed corn or fodder for 7 days following application..

NOTE FOR ALL APPLICATION SCHEDULES: 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. Follow all directions carefully and ensure proper sprayer calibration.

SORGHUM (MILO):
PREPLANT APPLICATIONS FOR NO-TILLAGE AND REDUCED TILLAGE GRAIN SORGHUM (MILO)

Hi-Dep®, a mixed amine salt of 2,4-D, may be applied prior to planting grain sorghum with conservation tillage systems. In no-tillage or reduced tillage systems where grain sorghum is planted in previous crop residues, established sod, stale seedbeds, or broadleaf cover crops, Hi-Dep® will control susceptible broadleaf weeds and certain cover crops, Hi-Dep® will not control unemerged broadleaf weeds and may not control the regrowth of certain perennial weeds.

To control emerged and actively growing broadleaf weeds, apply 1 to 3 pints of product per acre with spray volumes of 1 to 10 gallons per acre with ground equipment prior to planting. For less susceptible weeds or over-wintering weeds, use the higher dosage rates.

TANK MIXTURES FOR PRE-PLANT APPLICATIONS FOR NO-TILLAGE AND REDUCED TILLAGE GRAIN SORGHUM.

Hi-Dep®, a mixed amine salt of 2,4-D, may be applied in combination with one or more of the following herbicides for improved control of broadleaf weeds. These tank mixtures must be used according to the most restrictive label limitations and precautions. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions for use, dosage rates, and application schedules. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographic regions may have established dosage rate limitations. Consult your state pesticide control agency for additional information regarding the maximum use rates.

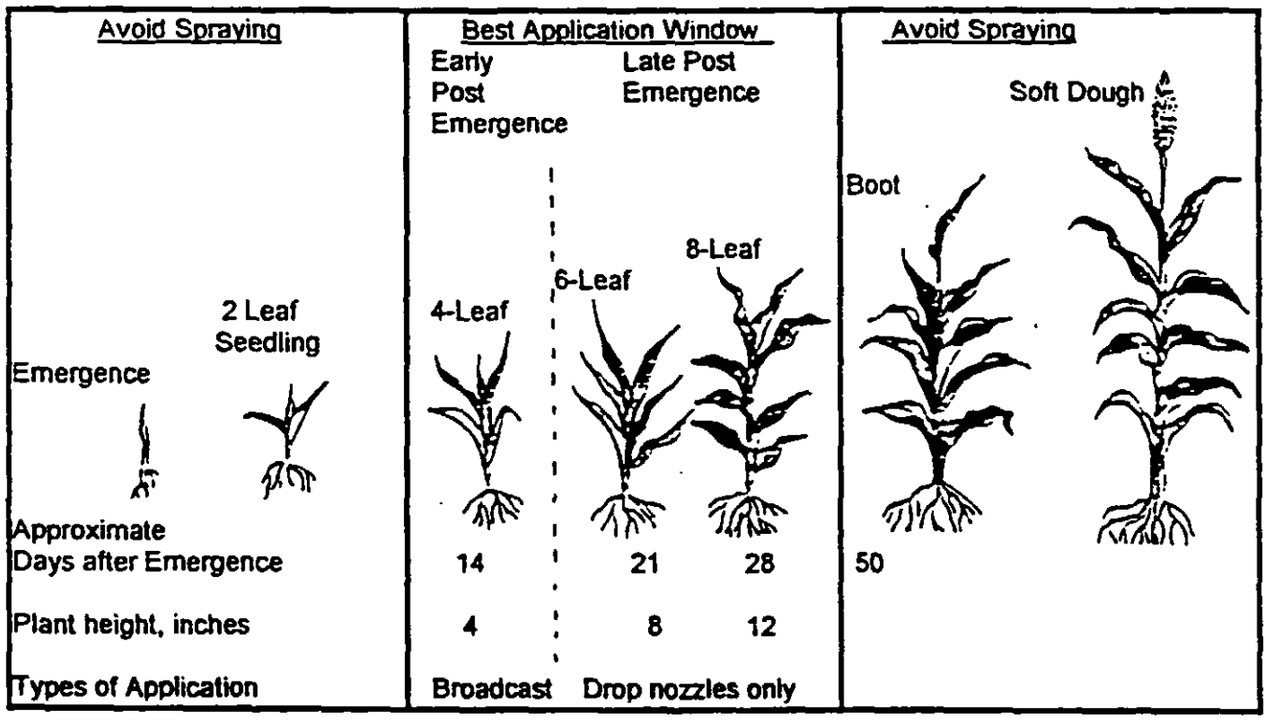
This product may be tank mixed with these herbicides for pre-plant applications for grain sorghum with conservation tillage systems:

Common Name	Trade Names
atrazine	AAtrex (R) Nine-O (R)
cyanazine	Bladex (R) 90 DF
dicamba	Banvel (R) Herbicide
glyphosate	Roundup (R) Herbicide
paraquat	Gramoxone (R) Extra Herbicide

POST-EMERGENT APPLICATIONS FOR GRAIN SORGHUM (MILO)

Post-emergent applications of Hi-Dep® are recommended during the 4 leaf stage up to the boot stage of the grain sorghum. Broadcast applications are recommended for the 4 to 6 leaf stage of grain sorghum or approximately 14 to 21 days after emergence. Only directed sprays to the inter-rows are recommended for the 6 leaf stage until the boot stage of the grain sorghum or approximately 21 to 50 days after emergence.

Application Schedules for Grain Sorghum (Milo).



1. EARLY POST EMERGENCE: GRAIN SORGHUM HEIGHT OF 4 TO 8 INCHES, OR FROM 4 LEAF UNTIL 6 LEAF GRAIN SORGHUM, OR APPROXIMATELY 14 TO 21 DAYS AFTER EMERGENCE.

Apply 2/3 to 1 pint of Hi-Dep® per acre as a broadcast treatment. Temporary crop injury can be expected under conditions of high soil moisture and high air temperature. If it is necessary to apply under these conditions, use no more than 2/3 pints of product per acre.

2. LATE POST EMERGENCE: GRAIN SORGHUM HEIGHT GREATER THAN 8 INCHES, OR FROM 6 LEAF STAGE UNTIL BOOT STAGE OF GRAIN SORGHUM, OR APPROXIMATELY 21 TO 50 DAYS AFTER EMERGENCE.

Use nozzle extensions or drop nozzles for a directed spray to the "inter-row" areas only. (See Diagram 1 shown in the instructions for corn.) Ensure uniform coverage of target weeds. Direct the spray beneath the sorghum canopy away from base of the grain sorghum plants. Minimize the coverage of the grain sorghum leaves and avoid spray deposits in the whorl. Do not apply after the boot stage of grain sorghum.

The broadcast dosage rates presented in Table 1 must be adjusted for this "inter-row" application. Specifically, multiply the broadcast dosage rate shown in Table 1 times the fraction of the row width covered by the spray pattern. Or, use the formulas below to compute the proper dosage rate and spray volumes for this inter-row method of application.

$$\text{Dosage Rates per Treated Acre} = \frac{\text{Spray band width, inches}}{\text{Row width, inches}} \times \text{Broadcast Dosage Rate per Acre}$$

$$\text{Spray Volume per Treated Acre} = \frac{\text{Spray band width, inches}}{\text{Row width, inches}} \times \text{Broadcast Spray Volume per Acre}$$

GRAIN SORGHUM TANK MIXTURES FOR EARLY POSTEMERGENCE AND LATE POST-EMERGENCE APPLICATIONS

Hi-Dep®, a mixed amine salt of 2,4-D, may be applied in combination with one or more of the following herbicides for improved control of broadleaf weeds. These tank mixtures must be used according to the most restrictive label limitations and precautions. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions use, dosage rates, and application schedules. Tank mixture recommendations are for use only in states where the companion products and application site are registered.

	Early Post-Emergent Applications Amount of Product		Late Post-Emergent Applications Amount of Product	
Product Name	Pints per Acre	Pounds ai/acre	Pints per Acre	Pounds ai/acre
Hi-Dep® plus Banvel(R) Herbicide	1/4 to 1/2 pint 1/2 pint	.125-0.25 0.25	not recommended	
Hi-Dep® plus Buctril (R) Brand Herbicide	1/8 to 1/2 pint 1 pint	.06- 0.25 0.25	1/4 to 1/2 pint 1 1/2 pints	.125-0.25 0.38

NOTE FOR ALL APPLICATION SCHEDULES: 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.

RICE: See Table 1 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.

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

- TABLE 1 - BROADCAST DOSAGE RATES FOR GROUND AND AERIAL APPLICATIONS TO SMALL GRAINS, CORN, SORGHUM, RICE, AND SUGARCANE.

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, obtain 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 weedsand control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf and vines that interfere with harvesting.

NOTE: Do not apply when weather conditions favor drift from treated areas.

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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.

TANK MIXTURES FOR FALLOW: HI-DEP®, a mixed amine salt of 2,4-D, can be applied as a tank-mixture with BANVEL (R) and ROUNDUP(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 HI-DEP®.

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

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. The maximum application rate to pasture and rangeland is 2 pounds 2,4-D acid equivalent per acre per application per site.

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.

TANK MIXTURES FOR RANGELANDS: HI-DEP®, a mixed amine salt of 2,4-D, can be applied as a tank-mixture with BANVEL (R) or TORDON(R) to broaden the spectrum of weed control. 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 HI-DEP®.

RANGELANDS:

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

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HI-DEP(R) and three tank mixtures have proven effective on mesquite in pastures and rangelands in Texas, Oklahoma, Arizona, and New Mexico. HI-DEP® 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.

HI-DEP®, 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 these activities are informed of the precautionary statements.

APPLICATION SCHEDULES: 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 HI-DEP® and tank mixtures applied with aerial equipment.

SPRAY VOLUMES -- For aerial application of HI-DEP® 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 -- HI-DEP® 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® 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® may be used in reducing drift. Refer to Chart I for specific instructions.

HARVEST AND GRAZING INTERVALS: Refer to Chart I.

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CHART I - TANK MIXTURE RECOMMENDATIONS FOR FOLIAR BROADCAST TREATMENTS USING AERIAL EQ										
Product Name	Restricted Use	Approved States	Amount of Product		Spray Volume	Spray Preparations				
						Water Solutions		Oil: Water Emulsions		
			Quarts per Acre	Pounds a.i./acre	gpa	Agricultural Surfactants % vol./vol. [5]	Drift Control Additives	Ratio of Oil to Water	Emulsifiers	Drift Ac
HI-DEP®	NO	New Mexico Oklahoma Texas Arizoi	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 712 or Triton X-100	Nal Equ
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	Rangeland Spra-Mate, Sponto 712 Triton X-100	Nal Equ
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 712 or Triton X-100	Nal Equ

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.

2) 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 tr recommended. Do not transfer livestock form treated grazing areas onto sensitive broadleaf crop areas without allowing 7 days of grazing on an untreated pas

3) Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or loss of plants can be tolerated. Withdraw livestock from tr 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 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 grass pasture. Otherwise, urine may cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume component is desired. GRAZON® PC HERBICIDE may injure or kill leg seedings may not be successful if made within 2 years following application of this herbicide. Do not treat with GRAZON ® PC HERBICIDE (Picloram) more th application rate for GRAZON ® PC HERBICIDE is 2 pints per acre per year. (0.5 lbs. ae/A).

5) Use non-ionic agricultural surfactants such as ORTHO ® X-77 or equivalent products.

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® 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										
Product Name	Restricted Use	Approved States	Amount of Product		Spray Volume	Spray Preparations				
						Water Solutions		Oil: Water Emulsio		
			Quarts per Acre	Pounds a.i./acre	gpa	Agricultural Surfactants % vol./vol. [5]	Drift Control Additives	Ratio of Oil to Water	Emulsifiers	D
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	Sponto 712 or Triton X-100	N E
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	Rangeland Spra-Mate, Sponto 712 Triton X-100	N E
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	Sponto 712 or Triton X-100	N E

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

2) 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 recommended. Do not transfer livestock form treated grazing areas onto sensitive broadleaf crop areas without allowing 7 days of grazing on an untreated p

3) Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or loss of plants can be tolerated. Withdraw livestock from 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 gras 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 grass pasture. Otherwise, urine ma cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume component is desired. GRAZON ® PC HERBICIDE may injure or kill l seedings may not be successful if made within 2 years following application of this herbicide. Do not treat with GRAZON ® PC HERBICIDE (Picloram) more application rate for GRAZON ® PC HERBICIDE is 2 pints per acre per year. (0.5 lbs. ae/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 one application of 1 1/3 pints per acre per year 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	——	——	——
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 HI-DEP® 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 HI-DEP® 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.

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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.

CONSERVATION RESERVE PROGRAMS (CRP)

Hi-Dep® may be applied post emergence to newly seeded and established grasses grown in Conservation Reserve Program (CRP) acres.

Treatments of Hi-Dep® may injure or kill legumes including alfalfa, clovers, lespedezas, sweet clover, trefoils and vetches. Also, treatments of this product may be injurious and may reduce the seedling growth of buffalograss, bentgrass, kleingrass, sideoats grama, and switchgrass.

Do not graze or harvest treated Conservation Reserve Program acres.

NEWLY SEEDED AREAS Applications after the 5-6 leaf stage of grass seedlings.

Hi-Dep® may be applied to newly seeded perennial grasses or to the newly seeded grasses grown with a companion/cover crop such as small grains. Post-emergent applications of this product are recommended only after the 5 to 6 leaf stage of the grass seedlings. Or, do not apply this product prior to the beginning of tillering of the perennial grass seedlings. Perennial grasses have shown tolerance to this product when the grass seedlings have tillered and have developed an adequate secondary root system.

Apply 3/4 to 1 pint of Hi-Dep® as a broadcast treatment to control annual broadleaf weeds. Biennial and perennial weeds may require follow-up or sequential treatments. The maximum application rate is 1.0 pound 2,4-D acid equivalent per acre per application site.

ESTABLISHED PERENNIAL GRASS STANDS

Established grass stands are defined as perennial grasses that have been planted one or more seasons before the application of this product. Application rates and schedules are presented below:

ESTABLISHED GRASSES OF CONSERVATION RESERVE PROGRAM

Weed Types	Broadcast Rates per Acre		When to Apply
	Amount of Hi-Dep®(1) pints/acre	Pounds of 2,4-D a.e./acre	
Annual Broadleaf	3/4 - 1 pint	0.38 to 0.5 pounds	Spring or fall during active growth.
Biennial	2 - 4 pints	1.0 - 2.0 pounds	Spring or fall during seedling to rosette stage.
Perennial	2 - 4 pints	1.0 - 2.0 pounds	Spring or fall during bud to bloom stage.

Footnote 1: Use the higher rate within the range specified for tall vegetation, dense canopies, weeds beyond the suggested growth stage, or during adverse conditions.

Biennial and perennial weeds may require follow-up or sequential treatments. The maximum application rate is 2.0 pounds 2,4-D acid equivalent per acre per application per site.

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.

For residential and other turf sites excluding sod farms, the maximum application rate to turf is 2.0 pounds 2,4-D acid equivalent per acre per application per site. The maximum number of broadcast applications per treatment site is 2 per year. Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried or dust has settled.

SPOT TREATMENT/NON-CROP: Hand-held and high volume equipment. For control of weeds listed using knapsack sprayers or high volume equipment utilizing handguns 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 with uniform coverage . 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.

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 agricultural surfactant. 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.

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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 handgun. 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 FOR INDUSTRIAL/NONCROPLAND AREAS:

Forestry Site Preparation -- For use in desiccation/controlled burning programs, use 1/2 to 2 gallons of HI-DEP® 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.

The maximum application rate to forestry site preparation is 4 pounds 2,4-D acid equivalent per acre per application per site.

Utility & Pipeline rights-of-way -- Use 1/2 to 2 gallons of HI- DEP® 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: HI-DEP®, a mixed amine salt of 2,4-D, 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 HI-DEP®.

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: HI-DEP® 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 HI-DEP® in combination with 1 quart of TORDON®, or 2 quarts of HI-DEP® plus 2 quarts of BANVEL®, or 2 quarts of HI-DEP® 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 with conventional equipment. Use nozzle systems capable of spraying correct gallonage. Add a non-ionic agricultural surfactant at 0.25% by volume (1 quart per 100 gallons of solution).

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

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SUPPLEMENTAL LABELING

FOR USE IN REDUCED OR NO-TILLAGE IN

SOYBEANS (Preplant Only)

- GENERAL INFORMATION -

HI-DEP® is a mixed amine salt of 2,4-D that provides postemergence control of many susceptible annual and perennial broadleaf weeds. HI-DEP® may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. HI-DEP® should only be applied pre-plant to soybeans in situations such as reduced tillage production systems, where emerged weeds are present. Apply only according to the application instructions given below.

- MIXING INSTRUCTIONS -

Mix HI-DEP® only with water, unless otherwise directed on this label. Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of 2,4-D on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on all labels of adjuvants or fertilizers mixed with this product.

- APPLICATION PROCEDURES -

Apply using air or ground equipment in sufficient gallonage to obtain adequate coverage of weeds. Use 2 or more gallons of water per acre in aerial equipment and 10 or more gallons of water per acre in ground equipment.

APPLICATION TIMING AND USE RATES FOR AMINE SALTS

Maximum Amount Of HI-DEP® to Apply/acre	Maximum Rate (Pounds 2,4-D a.e./acre)	When to Apply (Days Prior To Planting Soybeans)
1 Pint	0.5	NOT LESS THAN 15 DAYS
1 Quart	1.0	NOT LESS THAN 30 DAYS

WEEDS CONTROLLED

alfalfa*
bindweed*
bullnettle
bittercress, smallflowered
buttercup, smallflowered
Carolina geranium
cinquefoil, common and rough
clover, red*
cocklebur, common
dandelion
dock, curly*
eveningprimrose, cutleaf
garlic, wild*
horseweed or marestail
ironweed
lambsquarters, common
lettuce, prickly
morningglory, annual
mousetail
mustard, wild
onion, wild*
pennycress, field
plantains
purslane, common
ragweed, common
ragweed, giant
shepherdspurse
smartweed, Pennsylvania
sowthistle, annual
speedwell
thistle, Canada*
thistle, bull
velvetleaf
vetch, hairy*
Virginia copperleaf

*These species are only partially controlled.

In general, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage at the time of treatment. The response of individual weed species to HI-DEP® is variable. Consult your local county or state Agricultural Extension Service or crop consultant for advice.

APPLICATION RESTRICTIONS AND PRECAUTIONS

Important Notice: Unacceptable injury to soybeans planted in fields previously treated with HI-DEP® may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.

Apply a maximum of one application per growing season regardless of the treatment rate.

Do not apply HI-DEP® when weather conditions such as temperature air inversions or wind favor drift from treated areas to susceptible plants.

Livestock Grazing Restriction: Do not feed hay, forage, or fodder. Restrict livestock from grazing treated fields.

In fields previously treated with 2,4-D, plant soybean seed as deep as practical or at least 1.5 to 2.0 inches deep. Adjust the press wheel of the planter, if necessary, to ensure that planted seed is completely covered.

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.

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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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