CLICK HERE TO JUMP TO USE DIRECTIONS

Since 1956 GORDON'S FARM ®

Registered for use on PASTURES

HI-DEP®
BROADLEAF HERBICIDE

Controls thistles, wild roses, and many other broadleaf weeds and brush in pastures.

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 38.60%.
Isomer Specific by AOAC Methods.

KEEP FROM FREEZING

FORMULATED FOR LOW VOLUME APPLICATIONS WITH AERIAL AND GROUND EQUIPMENT

KEEP OUT OF REACH OF CHILDREN

DANGER-PELIGRO

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See below for additional Precautionary Statements, First Aid and Full Directions For Use.

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

PERSONAL PROTECTIVE EQUIPMENT (PPE):
Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

ENGINEERING CONTROL STATEMENTS:
Containers over 1 gallon and less than 5 gallons in capacity: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

Containers of 5 gallons or more in capacity: Do not open pour from this container. A mechanical system (probe and pump or spigot) 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. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:
Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

FIRST AID

If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL HAZARDS: To prevent injury to susceptible crops and other desirable plants including but not limited to cotton, tomatoes, garden crops, and ornamentals, avoid contact with the spray solution, spray droplets, and spray mist (fine droplets). Applications are recommended only when there is no potential hazard from spray drift during dormant and active growth periods. Use coarse spray droplets, follow the recommendations of the equipment manufacturers, and apply when the wind velocity is less than 10 mph. Always check the spray tank and equipment for cleanness before preparing the spray solution. To avoid subsequent injury to crops other than the use site, immediately clean the spray equipment and dispose the rinsates according to label instructions. 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. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater.

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 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 any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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 and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) 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, waterproof gloves, shoes plus socks, and protective eyewear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Reentry statement for residential and other turf sites excluding sod farms. Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried or dust has settled.

STORAGE & DISPOSAL

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

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

PESTICIDE 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 is 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 ½ gallon (2 quarts) per acre or higher. For rates lower than ½ gallon, dilute with water for total solution per acre of not less than ½ gallon.

AIRCRAFT SPECIFICATIONS (FIXED WING OR ROTARY WING): Boom width should not exceed ¾ 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 nozzles 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.

WEEDS CONTROLLED LIST

Use HI-DEP® 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
Dock
Dogbane
Dogfennel
Goldenrod
Ground ivy
(continued on next column)

– PERENNIAL WEEDS (cont.) –

Healall
Hemlock
Ironweed
Leafy spurge
Knapweed (spotted, Russian, diffuse)
Locoweed
Mugwort
Nettles
Orange hawkweed
Povertyweed
Rush, Slender
Sowthistle
St. Johnswort
Stinging nettle
Strawberry (wild)
Tall buttercup
Tanweed
Toadflax
Vervain
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)
Plantain
Prickly lettuce
Primrose
Puncturevine
Radish (wild)
Ragweed
Russian thistle
Scotch thistle
Shepherdspurse
Sneezeweed
Sowthistle (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
Cedar
Chamise
Cherokee rose
Coastal sage
Elderberry
Hazel
Locust
Manzanita
Macartney rose
Multiflora rose
Pine
Poison ivy
Poison oak
Rabbitbrush
Sagebrush
Shinnery oak
Sumac
Tropical soda apple
Willow

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

2,4-D acid equivalent (a.e.)	1 lb.	¾ lb.	½ lb.	⅜ lb.	¼ lb.	⅛ lb.	⅛ lb.
HI-DEP®	2 pt.	1½ pt.	1 pt.	¾ pt.	½ pt.	⅜ pt.	¼ pt.

WHEAT, BARLEY, OATS, RYE AND TRITICALE:

See Table 1 on page 5 for recommended use rates. Spray after crop 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 hard 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 of product per acre when weeds are in bud stage, but do not spray crop in the boot to dough stage. The rate of 2 pints of product per acre (1.0 pound acid equivalent per acre) can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatments are 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®.

TANK MIXTURE FOR SMALL GRAINS	
Products	**Amount of Product**
HI-DEP® + GLEAN®*	1 pint/A + ⅛ to ⅓ ounce/A

*GLEAN® has been withdrawn from Colorado, Minnesota, Montana, Nebraska Panhandle, North Dakota, South Dakota, New Mexico, Texas Panhandle, and Wyoming. Still available in South Central Plains and Pacific Northwest. Consult your local DuPont representative for specific recommendations.

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 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, tank mixtures are recommended.

To control established legume sod (alfalfa and red clover) or legume cover crops, apply 2 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 Preplant 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 preplant applications for corn with conservation tillage systems:

Common Name	Trade Names
alachlor	Lasso® Micro-Tech Herbicide
	Lasso® Herbicide
alachlor and atrazine	Bullet® Herbicide
	Lariat® Flowable Herbicide
atrazine	AAtrex® Nine-O®
atrazine and cyanazine	Extrazine® II DF Herbicide Dispersible Granule
atrazine and dicamba	Marksman® Herbicide
atrazine and metolachlor	Bicep® 6L Herbicide
cyanazine	Bladex® 90 DF
dicamba	Banvel® Herbicide
	Clarity® Herbicide
glyphosate	Roundup® Herbicide
metolachlor	Dual® Herbicide, Dual Magnum™
paraquat	Gramoxone® 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 your State Agricultural Extension Service 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 on page 5 for recommended use rates. Apply to soil after planting but before corn emerges.

EMERGENCE — Apply just as corn plants are breaking ground. See Table 1 on page 5 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 pint 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 ½ 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. 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 on page 5 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.

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

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

Tank Mixtures for Early Post-Emergence 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		Late Post-Emergent Applications	
	Amount of Product		Amount of Product	
	Pints per Acre	Pounds a.e./acre	Pints per Acre	Pounds a.e./acre
Hi-Dep® plus Banvel® Herbicide	not recommended		¼ pint	0.125
			½ pint	0.25
Hi-Dep® plus Buctril® Brand Herbicide	⅛ to ½ pint	0.06-0.25	¼ to ½ pint	0.125-0.25
	1 pint	0.25	1½ pints	0.38

PREHARVEST — After the hard dough or dent stage, apply 1 to 2½ pints of HI-DEP® as a broadcast treatment with air or ground equipment. High dosage rates (1½ to 2½ 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.

GRAIN 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 1.5 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, tank mixtures are recommended.

Tank Mixtures for Preplant 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.

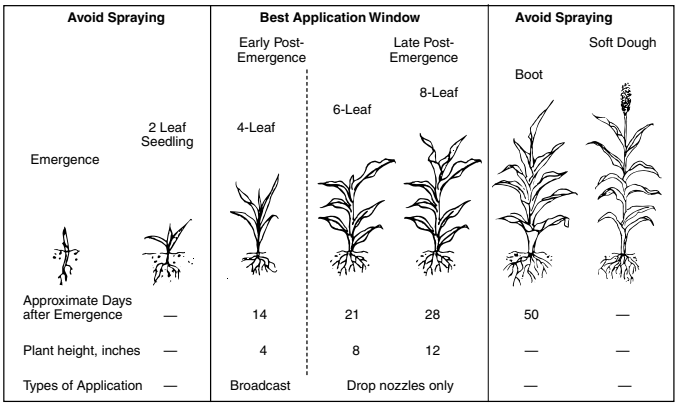
This product may be tank mixed with these herbicides for preplant applications for grain sorghum with conservation tillage systems:

Common Name	Trade Names
atrazine	AAtrex® Nine-O®
cyanazine	Bladex® 90 DF
dicamba	Banvel® Herbicide
glyphosate	Roundup® Herbicide
paraquat	Gramoxone® 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 ⅔ 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 ⅔ 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 on page 5 must be adjusted for the "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.

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

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

GRAIN SORGHUM TANK MIXTURES FOR EARLY POST-EMERGENCE 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, use directions, 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		Late Post-Emergent Applications	
	Amount of Product		Amount of Product	
Product Name	Pints per Acre	Pounds a.e./acre	Pints per Acre	Pounds a.e./acre
Hi-Dep® plus Banvel® Herbicide	¼ to ½ pint	0.125-0.25	not recommended	
	½ pint	0.25		
Hi-Dep® plus Buctril® Brand Herbicide	⅛ to ½ pint	0.06-0.25	¼ to ½ pint	0.125-0.25
	1 pint	0.25	1½ pints	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 State Agricultural Experiment Station or Extension Service Weed Specialist for this information.

FOR USE IN REDUCED OR NO-TILLAGE SOYBEANS (Preplant Only)

GENERAL INFORMATION

HI-DEP® is a mixed amine salt of 2,4-D that provides post-emergence 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 preplant 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 per 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	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 FOR SOYBEANS (Preplant)

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 air temperature 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.

RICE:

See Table 1 on page 5 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 ½ inch, at early seedling, 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 State Agricultural Experiment Station or Extension Service Weed Specialists for appropriate rates and timing of 2,4-D sprays.

SUGARCANE:

See Table 1 on page 5 for recommended use rates. Use up to 4 applications per year. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations to fit local conditions.

FALLOW LAND AND STUBBLE:

Annual weeds — Use 1 to 2 quarts of product/acre. Apply when weeds are actively growing.

Perennial weeds — Use 2 to 3 quarts of product/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 Land and Stubble: HI-DEP®, a mixed amine salt of 2,4-D, can be applied as a tank-mixture with BANVEL® Herbicide and ROUNDUP® Herbicide 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®.

TANK MIXTURES FOR FALLOW LAND AND STUBBLE	
Products	**Amount of Product**
HI-DEP® + BANVEL® HERBICIDE	3 pints/A + 1 pint/A
HI-DEP® + ROUNDUP® HERBICIDE	1 to 2 pints/A + ½ to 1 pint/A

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)
WHEAT, BARLEY, OATS, RYE, AND TRITICALE		
Spring postemergence wheat, barley, rye, triticale	¼ to 1½ pints	2 to 3 pints
Spring postemergence, oats	½ to 1 pint	1½ to 2 pints
Preharvest[3] (hard 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	1½ pints
Postemergence[1]		
up to 8 inches tall	½ to 1 pint	- - - - -
8 inches to tasseling (use only directed spray)	1 pint	1½ to 2½ pints
Preharvest[3]	1 to 2 pints	1½ to 2½ pints
GRAIN SORGHUM (MILO)[1]		
Postemergence		
6 to 8 inches tall	⅔ to 1 pint	- - - - -
8 to 15 inches tall (use only directed spray)	1 pint	1½ to 2 pints
RICE	1 to 2½ 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	2½ 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 or dent stage (corn) or hard dough stage (wheat) by air or ground equipment to suppress perennial weeds and 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.

PASTURE AND RANGELAND

BROADCAST APPLICATIONS WITH GROUND AND AERIAL EQUIPMENT:

Dosage Rates: Refer to Table 2 for the broadcast rates of HI-DEP® applied with ground and aerial equipment.

TABLE 2. BROADCAST RATES PER ACRE FOR PASTURE AND RANGELAND

Weed Types	Amount of HI-DEP® Quarts/Acre	Pounds of 2,4-D a.e./Acre	When to Apply
Annual Broadleaf	1.0-2.0 quarts	1.0-2.0 pounds	Spring or fall during active growth.
Biennial	1.0-2.0 quarts	1.0-2.0 pounds	Spring or fall during seedling to rosette stage.
Perennial	1.0-2.0 quarts	1.0-2.0 pounds	Spring or fall during bud to bloom stage.

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

On pasture and rangeland, the maximum seasonal rate is 6 quarts of product (5.7 pounds acid equivalent) 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.

Spray Volumes:

- For ground application of HI-DEP® alone, use a total spray volume of 1.0 to 10.0 gallons per acre (gpa).
- For ground application of the tank mixtures, use a minimum spray volume of 10.0 gallons per acre.
- For aerial application of HI-DEP® alone, use a total spray volume of 0.5 to 4.0 gallons per acre.
- For aerial application of the tank mixtures, use a minimum spray volume of 2.0 gallons per acre.

Grazing Restrictions and Harvest Intervals –

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.

TANK MIXTURES FOR PASTURE AND RANGELAND: HI-DEP®, a mixed amine salt of 2,4-D, can be applied as a tank mixture with BANVEL® Herbicide or TORDON® 22K 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®.

TANK MIXTURES FOR PASTURE AND RANGELAND	
Products	**Amount of Product**
HI-DEP® + BANVEL® HERBICIDE	1 to 2 quarts/A + 1 to 2 pints/A
HI-DEP® + TORDON® 22K	1 to 2 quarts/A + ¼ to 2 pints/A

SPOT TREATMENTS WITH GROUND EQUIPMENT

High Volume Leaf Stem Treatments of Individual Plants or Small Areas with Backpack Sprayers, Knapsack Sprayers, Power Sprayers, Spray Guns, or Other Ground Equipment – This method is appropriate for sparse infestations of brush or woody species, for small areas, or for areas where broadcast applications are not feasible. Woody species including multiflora rose, Macartney rose, southern wild rose, and willow baccharis may be controlled with spot treatments. Perennial weeds including Canada thistle (late bud to early bloom), bull thistle (bud stage), musk thistle (spring or fall in rosette or early bud stage), leafy spurge (early to late bloom), and field bindweed (80% or greater bloom) may be effectively controlled with spot treatments of HI-DEP®.

For HI-DEP® alone, mix 2.0 gallons of HI-DEP® per 100 gallons of water (2.0% spray concentration). Spray volumes will depend upon the height, density, and type of weeds/brush. Thorough coverage of the leaves, stems, trunks, and root collars is essential. Apply as a spray-to-wet application for the best results. Coverage should be thorough for individual plants and use sufficient pressure to penetrate the center of large clumps (e.g. multiflora rose).

On pasture and rangeland, the maximum seasonal rate is 6 quarts of product (5.7 pounds acid equivalent) 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.

Grazing Restrictions and Harvest Intervals –

Observe these intervals for HI-DEP® treatments:

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.

MESQUITE MANAGEMENT IN PERMANENT GRASS PASTURE AND RANGELAND

HI-DEP® 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® HERBICIDE, REMEDY® RANGE AND PASTURE HERBICIDE, and GRAZON® PC HERBICIDE for use on pasture and rangeland 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 including 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 on page 6 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 brush4 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 X-77® Spreader 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

(continued on page 7)

CHART I — TANK MIXTURE RECOMMENDATIONS FOR FOLIAR BROADCAST TREATMENTS USING AERIAL EQUIPMENT

Product Name	Restricted Use	Approved States	Amount of Product		Spray Volume	Spray Preparations					Grazing and Harvest Intervals
						Water Solutions		Oil: Water Emulsions			
			Quarts per Acre	Pounds a.e./acre	gpa	Agricultural Surfactants % vol./vol.[5]	Drift Control Additives	Ratio of Oil to Water	Emulsifiers	Drift Control Additives	
HI-DEP®	NO	New Mexico Oklahoma Texas Arizona	2.0	1.9	>½ to 4	—	—	—	—	—	See footnote 1.
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	Nalco-Trol or Equivalent	See footnotes 1, 2.
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, or Triton X-100	Nalco-Trol or Equivalent	See footnotes 1, 3.
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	Nalco-Trol or Equivalent	See footnotes 1, 4.

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 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.
3) Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injuryor loss of plants can be tolerated. Withdraw livestock from treated forage at least 3 days before slaughter during the year of treatment. Do not graze lactating dairy animals on treated areas for one year following treatment. Do not harvest grass for hay from treated areas for one year following treatment.
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 contain enough picloram to cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume component is desired. GRAZON® PC HERBICIDE may injure or kill legumes. Also, new legume seedings may not be successful if made within 2 years following application of this herbicide. Do not treat with GRAZON® PC HERBICIDE (Picloram) more than once a year. Maximum application rate for GRAZON® PC HERBICIDE is 2 pints per acre per year (0.5 lbs. ae/A).
5) Use nonionic agricultural surfactants such as X-77® Spreader or equivalent products.

CHART II — TANK MIXTURE RECOMMENDATIONS FOR FOLIAR BROADCAST TREATMENTS USING GROUND EQUIPMENT

Product Name	Restricted Use	Approved States	Amount of Product		Spray Volume	Spray Preparations					Grazing and Harvest Intervals
						Water Solutions		Oil: Water Emulsions			
			Quarts per Acre	Pounds a.e./acre	gpa	Agricultural Surfactants % vol./vol.[5]	Drift Control Additives	Ratio of Oil to Water	Emulsifiers	Drift Control Additives	
HI-DEP®	NO	New Mexico Oklahoma Texas Arizona	2.0	1.9	1-10	—	—	—	—	—	See footnote 1.
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	Nalco-Trol or Equivalent	See footnotes 1, 2.
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, or Triton X-100	Nalco-Trol or Equivalent	See footnotes 1, 3.
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	Nalco-Trol or Equivalent	See footnotes 1, 4.

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 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.
3) Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injuryor loss of plants can be tolerated. Withdraw livestock from treated forage at least 3 days before slaughter during the year of treatment. Do not graze lactating dairy animals on treated areas for one year following treatment. Do not harvest grass for hay from treated areas for one year following treatment.
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 contain enough picloram to cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume component is desired. GRAZON® PC HERBICIDE may injure or kill legumes. Also, new legume seedings may not be successful if made within 2 years following application of this herbicide. Do not treat with GRAZON® PC HERBICIDE (Picloram) more than once a year. Maximum application rate for GRAZON® PC HERBICIDE is 2 pints per acre per year (0.5 lbs. ae/A).
5) Use nonionic agricultural surfactants such as X-77® Spreader or equivalent products.

(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.

BROADCAST APPLICATIONS WITH GROUND EQUIPMENT

DOSAGE RATES: Refer to Chart II on page 6 for the broadcast rates of HI-DEP® and tank mixtures applied with ground equipment.

SPRAY VOLUMES: For ground application of HI-DEP® alone, use a total spray volume of 1.0 to 10.0 gallons per acre (gpa). For ground application of the tank mixtures, use a minimum spray volume of 10.0 gallons per acre; for sites with mixed brush or dense growth 10 to 25 gallons per acre are recommended. Refer to Chart II for specific instructions.

SPRAY PREPARATION: HI-DEP® diluted with water forms a solution. Agricultural surfactants such as X-77® Spreader are recommended for tank mixtures with water alone. Drift control additives such as NALCO-TROL® 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® 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.

HIGH VOLUME LEAF STEM TREATMENTS OF INDIVIDUAL MESQUITE PLANTS WITH BACKPACK SPRAYERS, KNAPSACK SPRAYERS, POWER SPRAYERS, SPRAY GUNS, OR OTHER GROUND EQUIPMENT:

This method is appropriate for sparse infestations of mesquite trees less than 6 to 8 feet in height or as a follow-up treatment in subsequent or different growing seasons. HI-DEP® may be applied alone or in combination with RECLAIM® in a dilution with water or in an oil-water emulsion.

For HI-DEP® alone, mix 2.0 gallons of HI-DEP® per 100 gallons of water (2.0% spray concentration). For HI-DEP® + RECLAIM® tank mixture, mix 1 gallon of HI-DEP® plus 0.5 to 0.75 gallon of RECLAIM® HERBICIDE per 100 gallons of water (1.0% and .5 to .75% spray concentration of HI-DEP® and RECLAIM®, respectively). See Chart III (below) for additional instructions for the spray preparation of 100 gallons of spray solution.

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 1⅓ 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	X-77® Spreader[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) Nonionic agricultural surfactants may be substituted for X-77® Spreader.
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.
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.

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.

GRASS SEED CROPS:

Use 1 to 4 pints of product 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 grass seedlings only after the five leaf stage, using ¾ to 1 pint of product per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4 pints of product per acre 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.

Observe these grazing 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.

SOD FARMS:

POSTEMERGENT APPLICATIONS:
Hi-Dep® may be applied to newly seeded and established grasses grown for sod. These cool-season and warm-season turfgrass species may be treated:

Cool-Season Turf

Kentucky bluegrass
Perennial ryegrass
Tall fescue
Red or fine leaf fescues
Mixtures of cool-season species such as Kentucky bluegrass, tall fescue and perennial ryegrass

Warm-Season Turf

Common bermudagrass
Hybrid bermudagrass
Bahiagrass
Zoysiagrass
Buffalograss

Prohibitions and advisories:
- Do not apply this product to bentgrass, carpetgrass, centipedegrass, dichondra, St. Augustinegrass and turfgrass where desirable clovers are present.
- Treatments of Hi-Dep® may injure or kill legumes including alfalfa, clovers, lespedezas, sweet clover, trefoils and vetches.
- Treatments of this product may be injurious and may reduce the seedling growth of buffalograss.

NEWLY SEEDED AREAS:

(Applications after the 5 to 6-leaf stage of grass seedlings)

Perennial grasses have shown tolerance to this product when the grass seedlings have tillered and have developed an adequate secondary root system. Postemergent applications of this product are recommended only after the 5 to 6-leaf stage of the grass seedlings. Do not apply this product before the beginning of tillering of the perennial grass seedlings. Generally, delay the application of this product until after the second or third mowing.

Apply ¾ to 1 pint of Hi-Dep® per acre as a broadcast treatment to control annual broadleaf weeds. Best results can be obtained with applications to broadleaf weeds that are actively growing. Only emerged broadleaf weeds present at the time of application will be controlled or suppressed.

Biennial and perennial weeds may require follow-up or sequential treatments. See Table 3.

ESTABLISHED PERENNIAL GRASS STANDS ON SOD FARMS:

(Application to stands planted one or more seasons)

Established grass stands are defined as perennial grasses that have been planted one or more seasons before the application of this product. Best results can be obtained with applications to broadleaf weeds that are actively growing.

Application rates and schedules are presented in Table 3.

Table 3. Rates of product per acre for sod farms with single or sequential (split) broadcast applications.

Weed Types	Amount of HI-DEP®[(1)] pints/acre	Pounds of 2,4-D a.e./acre	When to Apply
Annual Broadleaf	¾-1 pint	0.38 to 0.5 pounds	Spring or fall during active growth.
Biennial	1.5-4 pints	0.75-2.0 pounds	Spring or fall during seedling to rosette stage.
Perennial	1.5-4 pints	0.75-2.0 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. Use the lower rate (1.5-2.0 pints/A) within the range specified for hybrid bermudagrass (1.5 pints/A), bahiagrass (1.5-2.0 pints/A), zoysiagrass and buffalograss.			

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.

Spray Volumes:
- For ground application of Hi-Dep® alone, use a total spray volume of 1.0 to 10.0 gallons per acre (gpa).
- For ground application of the tank mixtures, use a minimum spray volume of 10.0 gallons per acre.
- For aerial application of Hi-Dep® alone, use a total spray volume of 0.5 to 4.0 gallons per acre.
- For aerial application of the tank mixtures, use a minimum spray volume of 2.0 gallons per acre.

CULTURAL PRACTICES OF SOD FARMS:

These cultural practices may affect the level of weed control:

Irrigation: Delay irrigation until 6-8 hours after treatment.

Mowing: Delay mowing until 1-2 days after treatment.

Plant-back interval: Generally, a 30-day period after treatment is adequate for reseeding.

CONSERVATION RESERVE PROGRAMS (CRP)

HI-DEP® may be applied post-emergence to newly seeded and established grasses grown in Conservation Reserve Program (CRP) areas.

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 to 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 ¾ 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 per 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	¾-1 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.

Noncropland including fencerows, hedgerows, roadsides, drainage ditchbanks, firebreaks, highway rights-of-way, utility rights-of-way, airports/airfields, vacant lots and industrial sites.

Broadcast applications to woody plants: Apply to trees and brush when foliage is fully expanded and plants are actively growing.

Up to 1.0 gallon of product per acre (4.0 lbs. acid equivalent per acre) may be applied in a single application.

The maximum noncropland application rate for tree, brush and woody plant control is 1.0 gallon of product per acre per application per site.

Target species	Application schedule	*Maximum* application rate, Gallons of product per acre	*Maximum* application rate, Pounds of acid equivalent per acre per application	*Maximum* number of applications per year	*Minimum* days between applications
Woody plants	Broadcast and high volume foliar	1.0 gal./A or 8 pints/A	4.0 #/A	1	NA

High volume foliar applications (100-400 gallons per acre):
Apply 0.25-1.0 gallon of product per acre with adequate water or apply a 0.25-1.0% vol/vol spray solution as a full cover spray with high volume equipment. Use the lower spray concentrations in the range for susceptible species and use the higher spray concentrations within the range for hard-to-control species, for mature plants during the late summer or under adverse environmental conditions (e.g. drought). The maximum seasonal application rate for trees, brush and woody plant control is 1.0 gallon of product per acre per application per site.

Spray broadleaf weeds, woody plants or mixed brush uniformly and thoroughly by wetting all leaves, stems, bark and root collars. The total volume of spray solution required for adequate coverage of solid stands of mixed brush can range from 100-400 gallons of spray solution per treated acre. The spray preparation chart for applications on a spray-to-wet basis is shown in Table 1.

Table 1. Instructions for preparing 100-400 gallons of spray solution at 0.25-1.0% spray concentration with water for high volume foliar applications.

Spray solution per acre, Gallons	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
100	0.25 gal.	0.33 gal.	0.5 gal.	1.0 gal.
200	0.5 gal.	0.67 gal.	1.0 gal.	—
300	0.75 gal.	1.0 gal.	—	—
400	1.0 gal.	—	—	—

Equal measures: 1 gallon = 4 quarts = 8 pints = 128 fl. oz.

For backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers.

Table 2. Instructions for preparing 1-3 gallons of spray solution at 0.25-1.0% spray concentration with water for high volume foliar applications.

Gallons Of Water	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
1	2 teaspoons	3 teaspoons	4 teaspoons	8 teaspoons
2	4 teaspoons	2 tablespoons	3 tablespoons	6 tablespoons
3	2 tablespoons	3 tablespoons	4 tablespoons	8 tablespoons

Equal measures: 1 fl. oz. = 2 Tablespoons (Tbs.) = 6 Teaspoons (tsp.)

Dosage rates per acre depend 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.

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.

CONTROL OF SOUTHERN WILD ROSE: On fencerows, use 1 gallon of product per acre per 100 gallons of water. Spray thoroughly as soon as foliage is well developed. Two or more treatments may be required.

AERIAL APPLICATIONS FOR NONCROPLAND AREAS

FORESTS (Forest Site Preparation)
Forestry Site Preparation — For use in desiccation/controlled burning programs, use ½ to 1 gallon per acre of HI-DEP® in tank mixes with other herbicides labeled for forestry site preparation (e.g. GARLON®, TORDON®, ARSENAL® Applicators Concentrate). Use sufficient water to achieve uniform wetting of target brush species. Do not exceed 25 gallons total spray per acre.

Do not apply as a stand release or cover spray to established conifers as injury may result.

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

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® or BANVEL® for the suppression and/or control of leafy spurge on industrial noncropland 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 with spray volumes of 1 to 10 gallons per acre with conventional equipment. Add a nonionic agricultural surfactant at 0.25% by vol/vol (eg. 1 quart of surfactant 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.

BROADLEAF WEED CONTROL IN NONCROPLAND GRASS AREAS:

DIRECTIONS, RESTRICTIONS AND LIMITATIONS FOR USE IN NONCROPLAND
Broadcast applications to annual and perennial weeds: Apply to emerged weeds. For best results, treat when weeds are young and actively growing.

Use 1.0-2.0 quarts of product per acre. The maximum application rate to noncropland sites is 2.0 quarts (4 pints) of product per acre per application per site.

Minimum spray volume: Use 2 or more gallons of spray solution per acre.

Number of applications: Limited to 2 applications per year.

Target species	Application schedule	*Maximum* application rate, Gallons of product per acre	*Maximum* application rate, Pounds of acid equivalent per acre per application	*Maximum* number of applications per year	*Minimum* days between applications	*Minimum* spray volume, gallons per acre
Annual and perennial weeds	Broadcast	2.0 quarts/A or 4.0 pints/A	2.0 #/A	2	30 days	2

Spot treatments for annual and perennial weeds

Backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers:
Instructions for preparing 1-3 gallons of spray solution at 0.25-1.0% spray concentration with water for high volume foliar applications.

Gallons Of Water	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
1	2 teaspoons	3 teaspoons	4 teaspoons	8 teaspoons
2	4 teaspoons	2 tablespoons	3 tablespoons	6 tablespoons
3	2 tablespoons	3 tablespoons	4 tablespoons	8 tablespoons

Equal measures: 1 fl. oz. = 2 Tablespoons (Tbs.) = 6 Teaspoons (tsp.)

Spot Treatments for Airfields, Roadsides, Vacant Lots, Fence Rows and Drainage Ditchbanks – Use a ¾% spray concentration or mix 1.0 fl. oz. of product with 1.0 gallon of water.

For Ornamental Turfgrass Established in Lawns, Golf Courses, Cemeteries, and Parks – Use 1.0-2.0 quarts of product per acre. 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 use on dichondra or other herbaceous groundcovers. Do not use on creeping grasses such as bentgrass except for spot treating nor on newly 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:
Hand-Held and High Volume Equipment – Prepare a ¾% solution in water and apply to foliage as a coarse spray. For hard-to-kill woody plants use a 1½% solution. Prepare the spray solution by mixing in water as per the table below.

Applications should be made on a spray-to-wet basis with uniform coverage. When using in knapsack sprayers, insure mixture is complete by shaking or inverting sprayer several times.

Ornamental Turfgrass Established in Lawns, Golf Courses, Cemeteries, and Parks – Use a ½-1% spray concentration or mix ⅔-1⅓ fl. oz. of product with 1.0 gallon of water.

Desired Volume	SPRAY CONCENTRATION			
	½%	¾%	1%	1½%
1 gallon	⅔ fluid ounce (4 teaspoons)	1 fluid ounce (2 tablespoons)	1⅓ fluid ounces (8 teaspoons)	2 fluid ounces (4 tablespoons)
25 gallons	1 pint	1½ pints	2 pints	3 pints
100 gallons	½ gallon	¾ gallon	1 gallon	1½ gallons
2 Tablespoons = 1 fluid ounce (fl. oz.) 1 Teaspoon = ⅓ Tablespoon = 0.17 fluid ounce				

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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