

2217-703

11/03/2008

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

NOV 3 2008

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

James Kunstman  
1217 West 12<sup>th</sup> Street  
P.O. Box 014090  
Kansas City, Missouri 64101-0090

Subject: EPA Reg. 2217-703 (Acme Hi-Dep Herbicide) Label Amendment

Dear Mr. Kuntsman:

The labeling referred to above is acceptable. The Agency agrees that PBI/Gordon Corp. may distribute and sell products bearing old labeling for 12 months from the date of this letter. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Joanne S. Miller".

Joanne Miller  
Product Manager 23  
Herbicide Branch  
Registration Division (7505P)

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# ACME® HI-DEP® HERBICIDE

## EPA Reg. No. 2217-703

Six sublabels represent the entire or master label of Acme® Hi-Dep® Herbicide. Please refer to the appropriate section of the labeling as shown as follows:

<b>Section</b>
<b>Label language common to all sublabels</b>
<b>Sublabel 1. Hi-Dep® Broadleaf Herbicide, Gordon's Agricultural Products</b>
<b>Sublabel 2. Hi-Dep® CA Broadleaf Herbicide, Gordon's Agricultural Products</b>
<b>Sublabel 3. Gordon's Orchard Master® Broadleaf Herbicide</b>
<b>Sublabel 4. Gordon's Orchard Master® CA Broadleaf Herbicide</b>
<b>Sublabel 5. Hi-Dep® IVM Broadleaf Herbicide</b>
<b>Sublabel 6. Gordon's Pasture Pro® Herbicide</b>
<b>Appendix</b>
<b>Document Control Information</b>

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Label Language Common To All Sublabels

ACME® HI-DEP® HERBICIDE

EPA Reg. No. 2217-703

ACTIVE INGREDIENT:

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.

ACCEPTED

NOV 3 2008

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

2217-703

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 some one to explain it to you in detail.)

KEEP FROM FREEZING

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

PRECAUTIONARY STATEMENTS

Hazards To Humans And Domestic Animals

~~DANGER: Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed, if absorbed through skin or if inhaled. Avoid breathing vapor or spray mist. Do not get in eyes or on clothing. Wear protective eyewear.~~

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist or vapor.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are natural rubber, natural rubber blends and laminates. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

- protective eyewear,
- long-sleeved shirt and long pants,
- shoes and socks, plus

- chemical-resistant gloves when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- See engineering controls for additional requirements.

### User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### 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.~~

Engineering Controls for aerial applicaiton: 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. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

### User Safety Recommendations

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Users should 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

<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

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Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

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

**Environmental Hazards**

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark ~~except as noted on appropriate labels~~. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**DIRECTIONS FOR USE**

**STORAGE AND DISPOSAL**

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

**PESTICIDE 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 CONTAINERS: - 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.

**LIMITED WARRANTY AND DISCLAIMER**

**IMPORTANT:** Read this LIMITED WARRANTY AND DISCLAIMER before buying or using this product. By opening and using this product, buyer and all users agree to accept the terms of this LIMITED WARRANTY AND DISCLAIMER in their entirety and without exception. If the terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full.

It is impossible to eliminate all risks inherently associated with use of this product. Damage to the treated article, ineffectiveness, or other unintended consequences can result from use of the product under abnormal conditions such as weather, presence of other materials, or the manner or use of application, etc. Such factors and conditions are beyond the control of the manufacturer, and **BY PURCHASING AND USING THIS PRODUCT THE BUYER AND ALL USERS OF THIS PRODUCT AGREE TO ACCEPT ALL SUCH RISKS.** Buyer and all users further agree to assume all risks of loss or damage

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from the use of the product in any manner that is not explicitly set forth in or that is inconsistent with label instructions, warnings and cautions.

The manufacturer warrants only that this product conforms to the chemical description given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use, subject to the inherent risks described below. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 HEREBY EXPRESSLY DISCLAIMED.**

**THE EXCLUSIVE REMEDY OF BUYER AND ALL USERS OF THIS PRODUCT, AND THE EXCLUSIVE LIABILITY OF THE MANUFACTURER, FOR ANY AND ALL LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OF HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THE PRODUCT.** The Manufacturer must be promptly notified in writing of any claims, whether based in contract, tort, negligence, strict liability, or otherwise, to be eligible to receive either remedy stated above.

The terms of this LIMITED WARRANTY AND DISCLAIMER cannot be varied by any written or verbal statements or agreements at the point of sale or elsewhere. No employee or agent of the manufacturer or seller is authorized to vary or exceed the terms of this LIMITED WARRANTY AND DISCLAIMER in any manner.

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**SUBLABEL 1**  
**Hi-Dep® Broadleaf Herbicide,**  
**Gordon's Agricultural Products**

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**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.

PPE required 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 is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- 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:** Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

**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. 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.

**AERIAL APPLICATION:** Use spray volumes equal to or greater than 2 gallon per acre. This minimum spray volume is a requirement of the 2,4-D Reregistration Eligibility Decision (RED). Spray volume at this minimum provide more effective weed control and better economy.

**AIRCRAFT SPECIFICATIONS (FIXED WING OR ROTARY WING):** 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. See manufacturer's technical bulletin regarding nozzles and application specifications.

**GROUND APPLICATION:** Apply in water, 2 to 10 gallons total solution per acre with conventional equipment. Low spray volumes (2 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.

**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.

<b>WEEDS CONTROLLED</b>			
Use Hi-Dep® to control many broadleaf weeds including:			
<b>PERENNIAL WEEDS</b>			
Artichoke	Dandelion	Leafy spurge	Strawberry (wild)
Aster	Dock	Locoweed	Tall buttercup
Austrian fieldcress	Dogbane	Mugwort	Tanweed (swamp smartweed)
Bindweed	Dogfennel	Nettles	Toadflax
Blackeyed susan	Goldenrod	Orange hawkweed	Vervain
Blue lettuce	Ground ivy	Povertyweed	Whitetop (hoary cress)
Canada thistle	Healall	Rush, slender	Wild garlic
Catnip	Hemlock	Sowthistle	Wild onion
Chicory	Ironweed	St. Johnswort	Wild sweet potato
Clover (many types)	Knapweed	Stinging nettle	Yellow rocket
Coffeeweed	(spotted Russian, diffuse)		
<b>ANNUAL AND BIENNIAL WEEDS</b>			
Beggarticks	Galinsoga	Mediterranean sage	Shepherdspurse
Bitterweed	Goatsbeard	Miners lettuce	Sneezeweed
Black medic	Goosefoot	Morningglory (annual)	Sowthistle (common)
Broomweed	Groundsel	Musk thistle	Spanishneedles
Bull thistle	Gumweed	Mustard	Sunflower
Burdock	Henbit	Parsnip	Tansy mustard
Carpetweed	Jewelweed	Pennycress	Tansy ragwort
Catchweed bedstraw	Jimsonweed	Pepperweed	Tumbleweed
Chickweed	Jim Hill mustard	Pigweed (redroot)	Tumble pigweed
Cinquefoil	(Tumble mustard)	Plantain	Velvetleaf
Cockle	Kochia	Prickly lettuce	Vetch
Cocklebur	Knotweed	Primrose	Wild carrot
Croton	Lambsquarters	Puncturevine	Wild parsnip
Devilsclaw	Lettuce (wild)	Radish (wild)	Wild turnip
Falseflax	Mallow	Ragweed	Witchweed
Fleabane (daisy)	Marestail (horseweed)	Russian thistle	Wormwood
Flixweed	Marijuana	Scotch thistle	Yellow starthistle
Frenchweed	Marshelder		
<b>ALSO CERTAIN 2,4-D SUSCEPTIBLE WOODY PLANTS SUCH AS:</b>			
Big sagebrush	Elderberry	Pine	Shinnery oak
Buckbrush	Hazel	Poison ivy	Sumac
Cedar	Locust	Poison oak	Tropical soda apple
Chamise	Macartney rose	Rabbitbrush	Willow
Cherokee rose	Manzanita	Sagebrush	
Coastal sage	Multiflora rose		

<b>To convert local recommendations into Hi-Dep® use the following table:</b>							
2,4-D acid equivalent (a.e.)	16 oz.	12 oz.	8 oz.	6 oz.	4 oz.	2.7 oz.	2 oz.
Hi-Dep®	32 fl.oz.	24 fl.oz.	16 fl.oz.	12 fl.oz.	8 fl.oz.	6 fl.oz.	4 fl.oz.



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## **Spray Drift Management**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Additional requirements for aerial applications.** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

[Begin optional text]

**Quick Reference Rates for Crop. See specific crops sections for complete use directions and precautions on following pages.**

**Broadcast Dosage Rates For Ground And Aerial Applications**

Application Schedule	Normal Rates (usually safe to crops)	Higher rates for special situations (more likely to injure crop) <sup>2</sup>
<b>WHEAT, BARLEY, OATS, RYE, AND TRITICALE</b>		
Spring postemergence wheat, barley, rye, triticale	1/4 to 1.5 pints/A	1.5 to 2.5 pints/A
Spring postemergence oats	1/2 to 1 pint/A	1.5 to 2 pints/A
Preharvest <sup>3</sup> (hard dough stage) wheat, barley, oats, rye	1 pint/A	---
<b>CORN<sup>1</sup> (This product is intended only for yellow and white corn used for grain, fodder, or silage.)</b>		
Preplant or Preemergence	2 pints/A	---
Postemergence <sup>3</sup> (up to 8 inches tall)	1/2 to 1 pint/A	---
Postemergence <sup>3</sup> (8 inches to tasseling) (use only directed spray)	1 pint/A	---
Preharvest	1 to 2 pints/A	2 to 3 pints/A
<b>GRAIN SORGHUM (MILO)<sup>1</sup></b>		
Postemergence (6 to 8 inches tall)	2/3 to 1 pint/A	---
Postemergence (8 to 15 inches tall) (use only directed spray)	1 pint/A	1.5 to 2 pints/A
<b>RICE</b>		
Post emergent	1 to 2.5 pints/A	2 to 3 pints/A
<b>SUGARCANE</b>		
Preemergent	2 to 4 pints/A	---
Post emergent	2 to 4 pints/A	---
<sup>1</sup> 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 tolerant to 2,4-D injury. If plants are more than 8 inches tall, use directed spray and keep off corn leaves. <sup>2</sup> The 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. <sup>3</sup> Apply after the hard dough or dent stage (corn) or after the 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.		

[End optional text]

## WHEAT, BARLEY, OATS, RYE, AND TRITICALE

Broadcast Dosage Rates For Ground And Aerial Applications To Wheat, Barley, Oats, Rye, and Triticale.			
Application Schedule	Normal Rates (usually safe to crops)	Higher rates for special situations (more likely to injure crop) <sup>1</sup>	Recommended Spray Volume
Spring postemergence wheat, barley, rye, triticale	1/4 to 1.5 pints/A	1.5 to 2.5 pints/A	2 to 10 gal/A
Spring postemergence oats	1/2 to 1 pint/A	1.5 to 2 pints/A	2 to 10 gal/A
Preharvest <sup>2</sup> (hard dough stage) wheat, barley, oats, rye	1 pint/A	—	2 to 10 gal/A

<sup>1</sup>The 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.

<sup>2</sup>Apply after the 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.

Limitations on 2,4-D for use on cereal grains (wheat, barley, oats, rye, and triticale)				
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Preharvest Interval (PHI)
Post Emergent	2.5 pints/A (1.25 lb 2,4-D ae/A)	1	2 gal/A	14 Days
Preharvest	1.0 pints/A (0.5 lb 2,4-D ae/A)	1	2 gal/A	14 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 3.5 pints (1.75 lb 2,4-D ae) per acre per season.

**Post emergent:** 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.

**Preharvest:** 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.

**WHEAT - PERENNIAL BROADLEAF WEEDS:** Post emergent : 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:	
Products	Amount of Product
Hi-Dep® + Gleen®*	1 pint/A + 1/6 to 1/3 ounce/A

\*Gleen® has been withdrawn from Colorado, Minnesota, Montana, Nebraska, 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<sup>1</sup>** (This product is intended only for yellow and white corn used for grain, fodder, or silage.)

Broadcast Dosage Rates For Ground And Aerial Applications To Corn.			
Application Schedule	Normal Rates (usually safe to crops)	Higher rates for special situations (more likely to injure crop) <sup>2</sup>	Recommended Spray Volume
Preplant or Preemergence	2 pints/A	---	2 to 10 gal/A
Postemergence <sup>1</sup> (up to 8 inches tall)	1/2 to 1 pint/A	---	2 to 10 gal/A
Postemergence <sup>1</sup> (8 inches to tasseling) (use only directed spray)	1 pint/A	---	2 to 10 gal/A
Preharvest <sup>3</sup>	1 to 2 pints/A	2 to 2.5 pints/A	2 to 10 gal/A

<sup>1</sup>Corn 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 tolerant to 2,4-D injury. If plants are more than 8 inches tall, use directed spray and keep off corn leaves.

<sup>2</sup>The 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.

<sup>3</sup>Apply after the hard dough or dent stage 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.

Limitations on 2,4-D for use on corn					
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Pregrazing Interval	Preharvest Interval (PHI)
Preplant or Preemergent	2.0 pints/A (1.0 lb 2,4-D ae/A)	1	2 gal/A	NA	NA
Postemergent	1.0 pint/A (0.5 lb 2,4-D ae/A)	1	2 gal/A	7 Days	7 Days
Preharvest	2.5 pints/A (1.25 lb 2,4-D ae/A)	1	2 gal/A	7 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 5.5 pints (2.75 lb 2,4-D ae) per acre per season. Do not use treated crop as fodder for 7 days following application. Do not harvest for grain for 7 days following application.

**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 2-10 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 2-10 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(TM) 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

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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.

<b>This product may be tank mixed with (but not limited to) these herbicides for preplant applications for corn with conservation tillage systems:</b>	
<b>Common Name</b>	<b>Trade Names, Including But Not Limited To:</b>
atrazine	AAtrex® Nine-O®
atrazine and dicamba	Marksman® Herbicide
atrazine and metolachlor	Bicep® 6L Herbicide
dicamba	Banvel® Herbicide
	Clarity(TM) Herbicide
glyphosate	Roundup® Herbicide
metolachlor	Dual® Herbicide
	Dual Magnum(TM)

**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, sludge, 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 PREMIX HI-DEP® WITH WATER BEFORE ADDING TO FLUID FERTILIZERS. For liquid nitrogen solutions such as U.A.N., use a premix of 1 part of Hi-Dep® with 4 parts of water or use a premix with a 1:4 ratio of product to water. For other fluid fertilizers such as suspensions, use a premix of 1 part of Hi-Dep® with 50 to 60 parts of water.

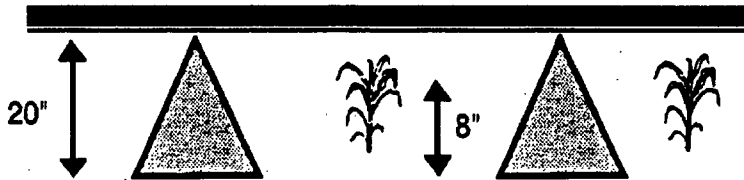
Use fluid fertilizers at rates and application schedules that are recommended your State Agricultural Extension Service or fertilizer suppliers.

**PREEMERGENCE:** Apply to soil after planting but before corn emerges.

**EARLY POSTEMERGENCE:** 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 0.5 pint per acre. Delay cultivation for 8 to 10 days after application to allow the corn to overcome any temporary brittleness.

**LATE POSTEMERGENCE:** 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 must be adjusted for this inter-row application. Specifically, multiply the broadcast dosage rate 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 POSTEMERGENCE 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 Postemergent Applications Rate per Application	Late Postemergent Applications Rate per Application
Hi-Dep® plus Banvel® Herbicide	Not recommended	1/4 pint/A (0.125 lb 2,4-D ae/A)
	Not recommended	1/2 pint/A (0.25 lb dicamba ae/A)
Hi-Dep® plus Buctril® Brand Herbicide	1/8 to 1/2 pint/A (0.06 to 0.25 lb 2,4-D ae/A)	1/4 to 1/2 pint/A (0.125 to 0.25 lb 2,4-D ae/A)
	1 pint/A (0.25 lb bromoxynil ae/A)	1.5 pints/A (0.38 lb bromoxynil ae/A)

**PREHARVEST:** After the hard dough stage, apply 1 to 2.5 pints of Hi-Dep® as a broadcast treatment with air or ground equipment. High dosage rates (1.5 to 2.5 pints of product per acre) are recommended to suppress bindweed, cocklebur, dogbane, sunflower, and velvetleaf that may interfere with harvesting.

**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. Follow all directions carefully and ensure proper sprayer calibration.

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## GRAIN SORGHUM (MILO)<sup>1</sup>

Broadcast Dosage Rates For Ground And Aerial Applications To Sorghum.			
Application Schedule	Normal Rates (usually safe to crops)	Higher rates for special situations (more likely to injure crop) <sup>2</sup>	Recommended Spray Volume
Postemergence (6 to 8 inches tall)	2/3 to 1 pint/A	---	2 to 10 gal/A
Postemergence (8 to 15 inches tall) (use only directed spray)	1 pint/A	1.5 to 2 pints/A	2 to 10 gal/A

<sup>1</sup>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 tolerant to 2,4-D injury. If plants are more than 8 inches tall, use directed spray and keep off sorghum foliage.

<sup>2</sup>The 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.

Limitations on 2,4-D use on grain sorghum				
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Preharvest Interval (PHI)
Postemergent	2.0 pint/A (1.0 lb 2,4-D ae/A)	1	2 gal/A	30 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 2.0 pint (1.0 lb 2,4-D ae) per acre per season. Do not harvest grain for 30 days following application. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following applications.

### 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.

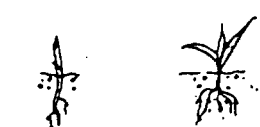





### TANK MIXTURES FOR PREPLANT APPLICATIONS FOR NO-TILLAGE AND REDUCED TILLAGE GRAIN SORGHUM:

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 (but not limited to) these herbicides for preplant applications for grain sorghum with conservation tillage systems:	
Common Name	Trade Names, Including But Not Limited To:
Atrazine	Aatrex® Nine-O®
Dicamba	Banvel® Herbicide
Glyphosate	Roundup® Herbicide

**POSTEMERGENT APPLICATIONS FOR GRAIN SORGHUM (MILO):** Postemergent 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):**

Avoid Spraying	Best Application Window			Avoid Spraying	
	Early Post-Emergence		Late Post-Emergence	Boot	Soft Dough
Emergence	4-Leaf	6-Leaf	8-Leaf		
2 Leaf Seedling					
					
Approximate Days after Emergence	14	21	28	50	
Plant height, inches	4	8	12		
Types of Application	Broadcast	Drop nozzles only			

**EARLY POSTEMERGENCE:** 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 pint of product per acre.

**LATE POSTEMERGENCE:** 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 must be adjusted for this inter-row application. Specifically, multiply the broadcast dosage rate 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.



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

Product Name	Early Postemergent Applications Rate per Application	Late Postemergent Applications Rate per Application
Hi-Dep® plus Banvel® Herbicide	1/4 to 1/2 pint/A (0.125 to 0.25 lb 2,4-D ae/A)	Not recommended
	1/2 pint/A (0.25 lb dicamba ae/A)	Not recommended
Hi-Dep® plus Buctril® Brand Herbicide	1/8 to 1/2 pint/A (0.06 to 0.25 lb 2,4-D ae/A)	1/4 to 1/2 pint/A (0.125 to 0.25 lb 2,4-D ae/A)
	1 pint/A (0.25 lb bromoxynil ae/A)	1.5 pints/A (0.38 lb bromoxynil ae/A)

**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 State Agricultural Extension Service for this information.

**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 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 in ground equipment.

<b>Limitations on 2,4-D applications (single and sequential) to soybeans</b>				
Application Schedule - Preplant	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Planting Interval before planting Soybeans
Single Application	1.0 pint/A (0.5 lb 2,4-D ae/A)	1	2 gal/A	15 Days
Two or Sequential Applications	1.0 pint/A (0.5 lb 2,4-D ae/A)	2	2 gal/A	30 Days
Single Application	2.0 pints/A (1.0 lb 2,4-D ae/A)	1	2 gal/A	30 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 2.0 pints (1.0 lb 2,4-D ae) per acre per season.

<b>WEEDS CONTROLLED</b>			
Alfalfa*	Dandelion	Mustard, wild	Sowthistle, annual
Bindweed*	Dock, curly*	Onion, wild*	Speedwell
Bullnettle	Eveningprimrose, cutleaf	Pennycress, field	Thistle, Canada*
Bittercress, smallflowered	Garlic, wild*	Plantain	Thistle, bull
Buttercup, smallflowered	Horseweed or Marestalk	Purslane, common	Velvetleaf
Carolina geranium	Ironweed	Ragweed, common	Vetch, hairy*
Cinquefoil, common and rough	Lambsquarters, common	Ragweed, giant	Virginia copperleaf
Clover, red*	Lettuce, prickly	Shepherdspurse	
Cocklebur, common	Morningglory, annual	Smartweed, Pennsylvania	
	Mousetail		

\*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. 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**

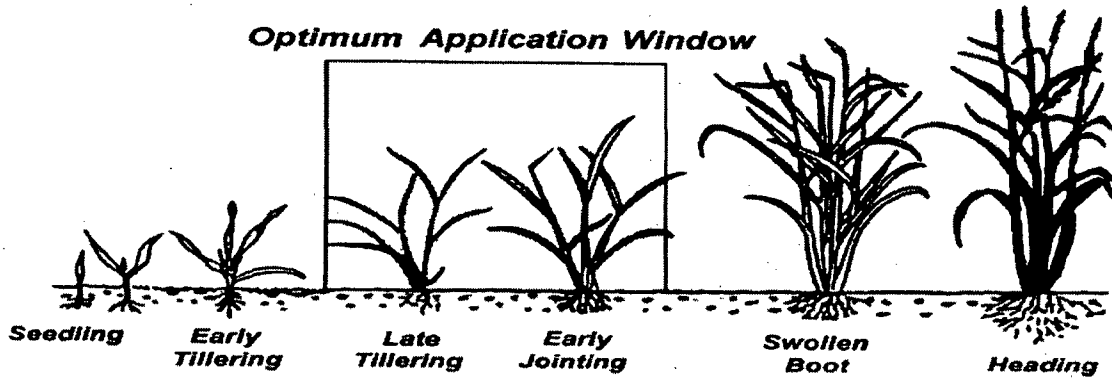
<b>Broadcast Dosage Rates For Ground And Aerial Applications To Rice.</b>			
Application Schedule	Normal Rates (usually safe to crops)	Higher rates for special situations (more likely to injure crop) <sup>1</sup>	Recommended Spray Volume
Post emergent	1 to 2.5 pints/A	2 to 3 pints/A	2 to 10 gal/A

<sup>1</sup>The 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.

Limitations on 2,4-D for use on rice.				
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Preharvest Interval (PHI)
Postemergent	3.0 pints/A (1.5 lb. 2,4-D ae/A)	1	2 gal/A	60 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 3.0 pints of product or 1.5 pounds of 2,4-D acid equivalent per acre per use season.

**APPLICATION TIMING:** 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. Refer to the diagram below.



Applications of this product prior to or after the window of application are not recommended. Rice treated with this product at the seedling stages, early tillering stages, late jointing, booting, and heading stages may be severely injured.

NOTE: Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying, consult local State Agricultural Extension Service or University Specialists for appropriate rates and timing of 2,4-D sprays

**SUGARCANE**

Use up to 2 applications per year. Consult your State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations to fit local conditions.

Broadcast Dosage Rates For Ground And Aerial Applications To Sugarcane.		
Application Schedule	Normal Rates (usually safe to crops)	Recommended Spray Volume
Preemergent	2 to 4 pints/A	2 to 10 gal/A
Post emergent	2 to 4 pints/A	2 to 10 gal/A

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Limitations on 2,4-D for applications to sugarcane.				
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Cropcycle	Minimum Spray Volume	Preharvest Interval (PHI)
Preemergent	4 Pints/ A (2.0 lb. ae / A)	1	2	Harvest at crop maturity
Post emergent	4 Pints/ A (2.0 lb. ae/A)	1	2	Harvest at crop maturity

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 8 pints of product or 4.0 pounds of 2,4-D acid equivalent per acre per season. Do not harvest cane prior to crop maturity.

### FALLOW LAND AND STUBBLE (crop stubble on idle land, or postharvest to crops, or between crops)

Annual weeds: Use 1 to 2 quarts of product per acre. Apply when weeds are actively growing.  
 Perennial weeds: Use 2 quarts of product per 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.

Limitations of 2,4-D for fallow land (crop stubble on idle land, or post harvest applications to crops, or applications between crops).						
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Planting Interval for Crops Named as Use Sites on this Label	Planting Interval for Other Crops	Preharvest Interval (PHI)
Post emergent	4 pints/A (2.0 lb 2,4-D ae/A)	2	30 Days	29 Days	30 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 8 pints of product or 4.0 pounds of 2,4-D acid equivalent per acre per season. Within 29 days of application, plant only those crops named as use sites on this or other registered 2,4-D products. Labeled crops may be at risk for crop injury or loss when planted too soon after application especially in the first 14 days after application. Do not use treated crop as fodder for 7 days following application. Recommended spray volume is 2 to 10 gallons per acre.

**TANK MIXTURES FOR FALLOW:** 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	
PRODUCTS	AMOUNT OF PRODUCT
Hi-Dep® + Banvel® Herbicide	3 pints/A + 1 pint/A
Hi-Dep® + Roundup® Herbicide	1 to 2 pints/A + 1/2 to 1 pint/A

### PASTURE AND RANGELAND

Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production. Hi-Dep® may be applied postemergence to newly seeded and established grasses grown in pastures, rangelands and Conservation Reserve Program (CRP) 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. Postemergent applications of this product are recommended

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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.

**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. 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.

<b>Broadcast application rates with ground and aerial equipment to Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production.</b>			
Weed Types	Rate per Application	Recommended Spray Volume	When to Apply
Susceptible annual and biennial broadleaf weeds	1.0 quarts/A (1.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during active growth
Moderately susceptible biennial and perennial broadleaf weeds	1.0 to 2.0 quarts/A (1.0 to 2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during seedling to rosette stage
For difficult to control weeds and woody plants	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during bud to bloom stage. A second application may be required
Spot treatment	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 10 gal/A	

ae = Acid Equivalent. Do not use on alfalfa, clover or other legumes. Do not use on newly seeded areas until grass is well established.

<b>Limitations on 2,4-D pasture and rangeland (established grass pastures, rangeland, and perennial grasslands, not in agricultural production.</b>						
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Pregrazing Interval	Preharvest Interval (PHI)
Postemergent	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A	0 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 1 gallon (4.0 lb 2,4-D ae) per acre per season. Do not apply within 30 days of the previous application. Do not cut forage for hay within 7 days of application. If grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard (WPS) are applicable. For program lands such as the Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this labeling must be followed.

**Spray Volumes:** Use a minimum spray volume of 2.0 gallons per acre for ground and aerial applications.

**TANK MIXTURES FOR PASTURE AND RANGELAND [AND LEAFY SPURGE CONTROL]:** 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®.

Products	Amount of Product
Hi-Dep® + Banvel®	1 to 2 quarts/A + 1 to 2 pints/A
Hi-Dep® + Tordon® 22K	1 to 2 quarts/A + 1/4 to 2 pints/A
Hi-Dep® + Tordon® 22K + Banvel®	1 to 2 quarts/A + 1/4 to 2 pints/A + 1/2 to 1 qt/A

**SPOT TREATMENTS with Hi-Dep® alone as a high volume foliar treatment.**  
**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).

**MESQUITE MANAGEMENT IN PERMANENT GRASS PASTURE AND RANGELAND:** Hi-Dep® and three tank mixtures have proven effective on mesquite in pasture and rangeland in Texas, Oklahoma, Arizona, and New Mexico. Hi-Dep® can be tank mixed with Reclaim® Herbicide, Remedy® 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® 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: 1. 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. 2. 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.

Foliar Broadcast Treatments Using Aerial and Ground Equipment				
Tank Mix and Application Rate	Approved States	Spray Volume	Rate of Surfactant for Water Solutions	Emulsifiers for Oil:Water Emulsions
Hi-Dep® 2 quarts/A (1.9 lb 2,4-D ae/A)	New Mexico Oklahoma Texas Arizona	<b>Aerial</b> >2 to 4 gal/A  <b>Ground</b> 2 to 10 gal/A	---	---
Hi-Dep® 1.0 quarts/A (0.95 lb 2,4-D ae/A)  PLUS  Reclaim® Herbicide 0.34 to 0.67 quarts/A (0.25 to 0.50 lb clopyralid ae/A)	New Mexico Oklahoma Texas	<b>Aerial</b> ≥2 gal/A  <b>Ground</b> 10 to 20 gal/A	0.25%v/v	Such as Sponto 712, Triton X-100
For Reclaim® Herbicide tank mix: 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.				
Hi-Dep® 1.0 quarts/A (0.95 lb 2,4-D ae/A)  PLUS  Remedy® Herbicide 0.50 quarts/A (0.50 lb triclopyr ae/A)	New Mexico Oklahoma Texas Arizona	<b>Aerial</b> ≥2 gal/A (≥4 gal/A for South Texas Mixed Brush)  <b>Ground</b> >10 gal/A	<b>Aerial</b> 0.25%v/v  <b>Ground</b> 0.50%v/v	Such as Sponto 712, Triton X-100
For Remedy® Herbicide tank mix: Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or loss of plants can be tolerated. Withdraw livestock from treated forage at least 3 days before slaughter during the year of treatment. Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product. Do not harvest hay for 14 days after application.				
Hi-Dep® 1.0 quart/A (0.95 lb 2,4-D ae/A)  PLUS  Grazon® PC Herbicide and/or Tordon 22K 0.5 to 1.0 quart/A (0.25 to 0.50 lb picloram ae/A)	New Mexico Oklahoma Texas	<b>Aerial</b> ≥2 gal/A (≥4 gal/A for South Texas Mixed Brush)  <b>Ground</b> 10 to 25 gal/A	0.50%v/v	Such as Sponto 712, Triton X-100
For Grazon® PC Herbicide tank mix: 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.				

**Water Solution 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.

**Oil:Water Emulsion Spray Preparation:** 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. Always use a jar test to check compatibility before preparing tank mixtures. Emulsifiers such as Sponto® 712 or Triton® X-100

must be used for adequate stability in oil-water emulsions. Drift control agents such as Nalco-Trol® may be used in reducing drift. **Aerial Applications:** Prepare an oil-water emulsion with a 1:5 ratio by adding a premix 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. **Ground Application:** The amount of oil in the spray mixture will range from 5% to 10% (Reclaim® Herbicide or Remedy® Herbicide tank mixes) or 15% to 20% (Grazon® PC Herbicide tank mixes) or the total spray mixture, and the maximum rate of oil should not exceed 1.0 gallon per acre.

**SPOT TREATMENTS of mesquite with Hi-Dep® plus Reclaim® as a high volume foliar treatment 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® plus 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 0.5 to 0.75% spray concentration of Hi-Dep® and Reclaim®, respectively). See Chart 3 for additional instructions for the spray preparation of 100 gallons of spray solution. See spray preparation table below for mixing 100 gallons of spray.

Spray Preparation Table for Mixing 100 Gallons of Spray Solution						
Application Type and Spray Concentration	Amounts of Products to Make 100 Gallons of Spray Solution					
	Hi-Dep®, Gallons	Reclaim®, Gallons	Water, Gallons	Oil <sup>1</sup> , Gallons	X-77 Spreader <sup>2</sup> Gallons	Emulsifier <sup>3</sup> Gallons
Water Dilution 2.0%v/v	2.0 gal	-----	98.0 gal	-----	-----	-----
Water Dilution 1.0%v/v + (0.5 to 0.75%v/v)	1.0 gal	0.5 to 0.75 gal	98.0 to 98.25 gal	-----	0.25 gal	-----
Oil Emulsion 1.0%v/v + (0.5 to 0.75%v/v)	1.0 gal	0.5 to 0.75 gal	93.1 to 93.40 gal	5.0 gal	-----	0.12 gal

<sup>1</sup> 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.  
<sup>2</sup> Nonionic agricultural surfactants may be substituted for X-77 Spreader®.  
<sup>3</sup> Triton® X-100, Sponto® 712 or other emulsifiers are added at the rate of 3 fl.ozs. per gallon of oil.

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.

**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 seedling grass only after the 5-leaf stage; using 3/4 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.



Limitations on 2,4-D applications to grass seed crops					
Use Site	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Preharvest Interval (PHI)
Grass Seed Crops	4.0 pints/A (2.0 lb 2,4-D ae/A)	2	21 Days	2 gal/A	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 8.0 pints (4.0 lb 2,4-D ae) per acre per season, excluding spot treatments. Do not cut forage for hay/straw within 7 days of application.

**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 3/4 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.

**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.

Rates of product per acre for sod farms with single or sequential (split) broadcast applications.			
Weed Types	Amount of Hi-Dep	Recommended Spray Volumes	When to Apply
Annual Broadleaf	3/4 to 1 pint/A (0.38 to 0.5 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during active growth.
Biennial	1.5 to 4 pints/A (0.75 to 2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during seedling to rosette stage.
Perennial	1.5 to 4 pints/A (0.75 to 2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during bud to bloom stage.

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 to 2.0 pints/A) within the range specified for hybrid bermudagrass (1.5 pts/A, bahiagrass (1.5to 2.0 pints/A), zoysiagrass, and buffalograss.

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

**Spray Volumes:** Use a minimum spray volume of 2.0 gallons per acre for ground and aerial applications.

Limitations on 2,4-D applications to sod farms					
Use Site	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Preharvest Interval (PHI)
Sod farms	4.0 pints/A (2.0 lb 2,4-D ae/A)	2	21 Days	2 gal/A	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 8.0 pints (4.0 lb 2,4-D ae) per acre per season, excluding spot treatments. Do not cut forage for hay within 7 days of application.

**CULTURAL PRACTICES OF SOD FARMS:**

These cultural practices may affect the level of weed control: **Irrigation:** Delay irrigation until 6 to 8 hours after treatment. **Mowing:** Delay mowing until 1 to 2 days after treatment. **Plant-back interval:** Generally, a 30 day period after treatment is adequate for reseeding.

**NONCROPLAND**

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

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**Broadcast applications to annual and perennial weeds in noncropland:** Airfields, Roadsides, Vacant Lots and Drainage Ditchbanks. Apply to emerged weeds. For best results, treat when weeds are young and actively growing. Use 1.0 to 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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications	Minimum Spray Volume
Annual and perennial weeds	Broadcast	2.0 quarts/A or 4 pints/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A

**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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications
Woody plants	Broadcast and high volume foliar	1.0 gal/A or 8 pints/A (4.0 lb 2,4-D ae/A)	1	N/A

**High volume foliar applications (100 to 400 gallons per acre):** Apply 0.25 to 1.0 gallon of product per acre with adequate water or apply a 0.25 to 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 to 400 gallons of spray solution per treated acre. The spray preparation chart for applications on a spray-to-wet basis is shown below.

**Woody Plants:** Instructions for preparing 100 to 400 gallons of spray solution at 0.25 to 1.0% spray concentration with water for high volume foliar applications.

Spray solution	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
100 gal/A	0.25 gal.	0.33 gal.	0.5 gal.	1.0 gal.
200 gal/A	0.5 gal.	0.67 gal.	1.0 gal.	----
300 gal/A	0.75 gal.	1.0 gal.	----	----
400 gal/A	1.0 gal.	----	----	----

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

**For Backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers**

**Woody Plants:** Instructions for preparing 1 to 3 gallons of spray solution at 0.25 to 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.

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

**Spot treatments for annual and perennial weeds**

**Backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers:**

Instructions for preparing 1 to 3 gallons of spray solution at 0.25 to 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.)

**FORESTS (Forest Site Preparation):** For use in desiccation/controlled burning programs, use 0.5 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 all forestry sites is 4.0 quarts per acre (4 pounds 2,4-D acid equivalent per broadcast application, and the number of broadcast applications is limited to one per year. Seasonal: The maximum seasonal application rate with

one broadcast application to forestry sites is 4.0 quarts/ A (4 pounds 2,4-D acid equivalent per acre per year.

**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. Use only one injection application per year.

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

**Broadcast applications to annual and perennial weeds in Ornamental Turfgrass (Lawns, Golf Courses, Cemeteries, and Parks):** Use 1.0 to 1.5 quarts of product per acre. The maximum application rate is 1.5 quarts of product per acre per application (1.5 lbs 2,4-D acid equivalent per acre per application). The maximum number of broadcast applications is limited to 2 per year. The maximum seasonal rate is 3.0 quarts of product per acre (3.0 lbs 2,4-D acid equivalent per acre), excluding spot treatments.

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: Ornamental Turfgrass:** Use a 0.5% to 1% spray concentration or mix 2/3 to 1.33 fl.oz. of product with 1.0 gallon of water. Prepare the spray solution by mixing in water as per the following table:

Desired Volume	Spray Concentration			
	0.5%	0.75%	1%	1.5%
1 gallon	0.67 fluid ounce (4 teaspoons)	1 fluid ounce (2 Tablespoons)	1.33 fluid ounces (8 teaspoons)	2 fluid ounces (4 Tablespoons)
25 gallons	1 pint	1.5 pint	2 pints	3 pints
100 gallons	0.5 gallon	0.75 gallon	1 gallon	1.5 gallon
2 Tablespoons (Tbs.) = 1 fluid ounce (fl.oz.). 1 teaspoon (tsp.) = 1/3 Tablespoon (Tbs.) = 0.17 fluid ounce (fl.oz.)				

**END OF SUBLABEL 1**

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**SUBLABEL 2**  
**Hi-Dep® CA Broadleaf Herbicide,**  
**Gordon's Agricultural Products**

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**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.

PPE required 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 is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- shoes plus socks and protective eyewear

**Use Instructions**

Hi-Dep® CA Broadleaf Herbicide consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with aerial and ground equipment. This product must be applied in compliance with the pesticide regulations administered by the California Department of Pesticide Regulation (CDPR). This product cannot be used in Colusa counties. Phenoxy herbicides are restricted herbicides, and this product should be used only by or under the supervision of a certified private or commercial applicator. A permit is required from the County Agricultural Commissioner for purchase or use of this product.

**SPRAY PREPARATION:** Check the spray tank and equipment for cleanness before preparing the spray solution to be applied to rice. Hi-Dep® CA Broadleaf Herbicide should be mixed with water. The addition of surfactants or wetting agents is not recommended. Anti-drift agents approved by U.S. EPA are compatible with this product. To avoid subsequent injury to crops other than rice, immediately clean spray equipment and dispose the rinsates according to label instructions.

**AERIAL APPLICATIONS:** Spray volumes of 2 to 10 gallons per acre are appropriate.

**AIRCRAFT SPECIFICATIONS (FIXED WING OR ROTARY WING):** 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 180° from direction of flight for fixed wing. **DO NOT APPLY THROUGH BECO-MIST NOZZLE SYSTEMS.** See manufacturer's technical bulletin regarding nozzles and method of application specifications.

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**GROUND APPLICATIONS:** Spray volumes of 2 to 10 gallons per acre are recommended with ground equipment. Spray volumes of 10 to 25 gallons per acre may be needed for adequate coverage of weeds.

### **Spray Drift Management**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Additional requirements for aerial applications.** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

### **RICE**

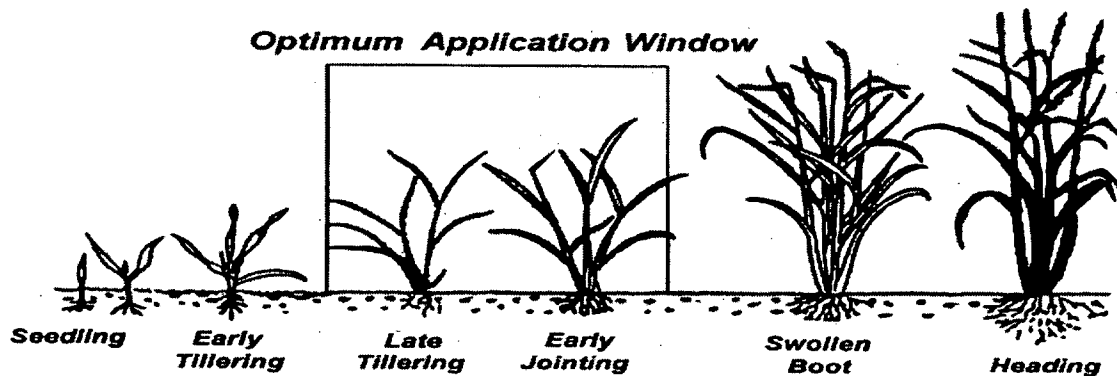
Postemergent applications of Hi-Dep® CA Broadleaf Herbicide to rice will control [ducksalad, waterhyssop, redstem, smallflower umbrella plant, and other] susceptible broadleaf weeds.

**APPLICATION RATES:** Apply 1.0 to 3.0 pints per acre of Hi-Dep® CA Broadleaf Herbicide to a wide range of broadleaf weeds in rice. The higher application rates may be needed to control difficult weeds; however, do not use the higher application rates unless crop injury will be acceptable. Consult your State Agricultural Experiment Station or State Extension Service Specialists for Rice for recommendations to fit local conditions.

<b>Limitations on 2,4-D for use on rice.</b>				
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Preharvest Interval (PHI)
Postemergent	3.0 pints/ A (1.5 lb.ae /A)	1	2 gal/A	60 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 3.0 pints of product or 1.5 pounds of 2,4-D acid equivalent per acre per use season.

**APPLICATION TIMING:** 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. Refer to the diagram below.



Applications of this product prior to or after the window of application are not recommended. Rice treated with this product at the seedling stages, early tillering stages, late jointing, booting, and heading stages may be severely injured.

**END OF SUBLABEL 2**

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## SUBLABEL 3

### Gordon's Orchard Master® Broadleaf Herbicide

#### **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.

PPE required 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 is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- shoes plus socks and protective eyewear

**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 that may affect the application of this product.

**MIDDLES MANAGEMENT FOR POME FRUITS, STONE FRUITS, TREE NUTS, AND PISTACHIO ORCHARDS:** Orchard Master® consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with ground equipment. Orchard Master® is intended for directed applications to emerged broadleaf weeds in established plantings of pome fruits, stone fruits and tree nuts. This product may be applied as a broadcast treatment to the vegetation in the row middles of established trees, and this product may be applied as a band application to control the weeds in the tree rows. Transplanted stock and established trees must be at least one (1) year old and in vigorous condition.

**SPRAY PREPARATION:** Check the spray tank for cleanness before preparing the spray solution. Orchard Master® should be mixed with water. Surfactants or wetting agents are not recommended for broadcast treatments. Anti-drift agents approved by the U.S. EPA are compatible with this product. To avoid subsequent injury to horticultural crops or other sensitive crops, immediately clean spray equipment and dispose the rinsates according to label instructions.

**METHODS OF APPLICATION AND APPLICATION SCHEDULES:** Use a fixed boom equipped with flat fan nozzles or low/reduced pressure nozzles that deliver coarse spray droplets at low pressures (20 to 25 psi). Spot treatments are appropriate for individual weeds, for sparse infestations, for small areas, or as follow-up treatments. Apply precisely and uniformly to obtain satisfactory weed control and to minimize



the injury to the trees. Avoid contact with fruit, foliage, stems, lower limbs, tree trunks, and exposed roots. Do not apply when weather conditions favor drift from the treated area. Early spring and late fall applications after harvest are preferred. Sequential applications may be needed to control perennial broadleaf weeds.

Preferred application schedules		
Weed Type	Season	Growth Stage of the Weeds
Annual broadleaf	Spring or fall	Active growth.
Biennials	Spring or fall	During the seedling to rosette stages. Sequential treatments.
Perennials	Spring or fall	During the early bud to bloom stage and during fall regrowth. Sequential treatments.

**TANK MIXTURES:** Orchard Master® may be applied in tank mixtures for improved broadleaf control. 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 product and use sites are registered. In addition, certain states or geographic regions may have established dosage rate limitations. Consult your State Pesticide Control Agency for additional information.

This product may be tank mixed with these herbicides.	
Common Name	Trade Name, Including But Not Limited To:
glyphosate	Roundup® Herbicide and Roundup® Ultra Herbicide

**IRRIGATION:** In California, do not apply to sandy or shallow soils and do not apply to dry soil without vegetation. Apply this product to moist soils, after irrigation, or after rainfall. Do not apply immediately before irrigation. Do not irrigate immediately following application. Best results are obtained when this product is applied two (2) days following irrigation. Do not apply this product through any type of irrigation system.

**Spray Drift Management**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Additional requirements for aerial applications.** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

**DOSAGE RATES FOR BROADLEAF WEED CONTROL, POME FRUITS, STONE FRUITS, TREE NUTS, AND PISTACHIO ORCHARDS:** Dosage rate recommendations are for broadcast applications. For banded, row, or strip treatments, the amount of product should be adjusted according to this formula:

$$\text{Dosage Rates per Treated Acre} = \frac{\text{Spray Band Width}}{\text{Tree Row Width}} \times \text{Broadcast Rate per Acre}$$

Spray volumes of 2 to 10 gallons per acre are recommended. Spray volumes of 10 to 25 gallons per acre may be needed for adequate coverage of weeds.

**ORCHARDS**

**POME FRUITS (APPLE AND PEAR):** Orchard Master® is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two (2) broadcast applications with a 75 day treatment interval may be made per crop. Avoid contact with fruit foliage, stems, lower limbs, tree trunks, and exposed roots. Do not harvest within 14 days of application. Do not cut orchard floor forage for hay within 7 days of application.

**STONE FRUITS (SWEET OR TART CHERRY, PEACH, OR PLUM/FRESH PRUNES):** Orchard Master® is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two applications with a 75 day treatment interval may be made per crop. Do not harvest these stone fruits within forty (40) days of application. Avoid contact with fruit, foliage, stems, lower limbs, tree trunks, and exposed roots. Do not cut orchard floor forage for hay within 7 days of application.

**TREE NUTS (ALMOND, FILBERT OR HAZELNUT, PECAN, BLACK AND ENGLISH WALNUT):** Orchard Master® is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two applications with

a 30 day treatment interval may be made per crop. Do not harvest these tree nuts within sixty (60) days of application. Do not cut orchard floor forage for harvest within 7 days of application.

**PISTACHIO:** Orchard Master® is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two applications with a 30 day treatment interval may be made per crop. Do not harvest these tree nuts within sixty (60) days of application. Do not cut orchard floor forage for hay within 7 days of application.

Crop	Application Rate	Recommended Spray Volume	Maximum Number of Broadcast Applications per Crop Year	Preharvest Interval
<b>Pome Fruits:</b> Apple & Pear	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2 to 10 gal/A	2	14
<b>Stone Fruits:</b> Sweet or Tart Cherry, Peach, or Plum	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2 to 10 gal/A	2	40
<b>Tree Nuts:</b> Almond, Filbert or Hazelnut, Pecan, English & Black Walnut	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2 to 10 gal/A	2	60
<b>Pistachio:</b>	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2 to 10 gal/A	2	60
Preharvest interval is defined as the minimum number of days between the last application of this product and harvest.				

**GREEN SUCKER CONTROL IN FILBERTS:** This treatment is intended to suppress suckers that decrease filbert production in bearing trees. Mix 2.0 pints of product with 100 gallons of water (0.95 lbs. of acid equivalent per 100 gallons of water) to prepare a 0.25% vol/vol spray solution. A nonionic surfactant is recommended. Refer to the labeling of the surfactant for precautions and suggested concentrations. Spray guns, high volume wands, or similar types of equipment may be used. Spray volumes will depend upon the height, density, and equipment type. Apply the diluted spray to all leaves and stems of the suckers that are 6 to 9 inches in height during April through August. The maximum number of applications is four (4) per season. Allow a minimum of 30 days between applications. Do not harvest filberts within forty-five (45) days of application for this method of application.

**SPOT TREATMENTS:** For orchard floors, spot treatments are appropriate for sparse infestations of broadleaf weeds, for small areas, or for follow-up treatments. Spray guns, high volume wands, or similar types of equipment may be used. Select nozzles that deliver coarse spray patterns to reduce the potential of nontarget drift. Spray volumes will depend upon the height, density, weeds species, and equipment type. Mix 1.0 to 2.0 gallons of product with 100 gallons of water, or prepare a 1.0 to 2.0% vol/vol spray solution. Or, mix 1.25 to 2.5 fl.oz. of product with one (1.0) gallon of water. Mix 3.0 pints of product per acre with adequate water (100 to 400 gallons). Or, prepare a spray concentration of 0.1% to 0.4% vol/vol spray solution. Refer to the table below for additional spray preparation. Apply diluted sprays to allow complete wetting of the foliage of the broadleaf weeds. Do not use spot treatments with spray guns around or near the base of the tree trunks for these stone fruits and nuts.

Amount of product needed to prepare 100 to 400 gallons of spray solution with water as spot treatments for orchard floors with high volume foliar applications.				
Spray Solution	0.10% vol/vol	0.13% vol/vol	0.20% vol/vol	0.40% vol/vol
100 gal/A	12 fl.oz. (0.7 pints)	16 fl.oz. (1.0 pints)	22 fl.oz. (1.4 pints)	3.0 pt
200 gal/A	1.4 pints	2.0 pints	3.0 pints	
300 gal/A	2.0 pints	3.0 pints		
400 gal/A	3.0 pints			

**PASTURE AND RANGELAND**

Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production such as Conservation Reserve program (CRP). Orchard Master® may be applied postemergence to newly seeded and established grasses grown in pastures, rangelands and Conservation Reserve Program (CRP) acres.

**NEWLY SEEDED AREAS (Applications after the 5 to 6 -leaf stage of grass seedlings.):**

Orchard Master® may be applied to newly seeded perennial grasses or to the newly seeded grasses grown with a companion/cover crop such as small grains. Postemergent 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 Orchard Master® as a broadcast treatment to control annual broadleaf weeds. Biennial and perennial weeds may require follow-up or sequential treatments.

**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.

Treatments of Orchard Master® 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.

<b>Broadcast application rates with ground and aerial equipment to Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production.</b>			
<b>Weed Types</b>	<b>Rate per Application</b>	<b>Recommended Spray Volumes</b>	<b>When to Apply</b>
Susceptible annual and biennial broadleaf weeds	1.0 quarts/A (1.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during active growth
Moderately susceptible biennial and perennial broadleaf weeds	1.0 to 2.0 quarts/A (1.0 to 2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during seedling to rosette stage
For difficult to control weeds and woody plants	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during bud to bloom stage. A second application may be required
Spot treatment	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 10 gal/A	

ae = Acid Equivalent. Do not use on alfalfa, clover or other legumes. Do not use on newly seeded areas until grass is well established.

<b>Limitations on 2,4-D pasture and rangeland (established grass pastures, rangeland, and perennial grasslands, not in agricultural production).</b>						
<b>Application Schedule</b>	<b>Maximum Rate per Application</b>	<b>Maximum Number of Applications per Year</b>	<b>Minimum Interval Between Applications</b>	<b>Minimum Spray Volume</b>	<b>Pregrazing Interval</b>	<b>Preharvest Interval (PHI)</b>
Postemergent	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A	0 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 1 gallon (4.0 lb 2,4-D ae) per acre per season. Do not apply within 30 days of the previous application. Do not cut forage for hay within 7 days of application. If grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard (WPS) are applicable. For program lands such as the Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this labeling must be followed.

**Spray Volumes:** Use a minimum spray volume of 2.0 gallons per acre for ground and aerial applications.

**TANK MIXTURES FOR PASTURE AND RANGELAND:** Orchard Master®, 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 Orchard Master®.

Products	Amount of Product
Orchard Master® + Banvel®	1 to 2 quarts/A + 1 to 2 pints/A
Orchard Master® + Tordon® 22K	1 to 2 quarts/A + 1/4 to 2 pints/A

**SPOT TREATMENTS with Orchard Master® alone as a high volume foliar treatment.**  
**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 Orchard Master®.

For Orchard Master® alone, mix 2.0 gallons of Orchard Master® 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).

**PARTIAL LISTING OF BROADLEAF WEEDS CONTROLLED:** Orchard Master® controls many broadleaf weeds including the following. **Annual and Biennial Weeds** - Lambsquarters, Prickly Lettuce, Tall Morningglory, Ragweed, Shepherdspurse, Annual Sowthistle, Tansy Ragwort, Pepperweed, Redroot Pigweed, and Yellow Starthistle. **Perennial Weeds** - Bindweed, Blue Lettuce, Canada thistle, Dandelion, Docks, St. Johnswort, Whitetop (Hoary Cress).

**END OF SUBLABEL 3**

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**SUBLABEL 4**  
**Gordon's Orchard Master® CA Broadleaf Herbicide**

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**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.

PPE required 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 is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- shoes plus socks and protective eyewear

**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 that may affect the application of this product. **Orchard Master® CA Broadleaf Herbicide is sold and registered exclusively within the state of California.**

**MIDDLES MANAGEMENT IN ORCHARDS FOR POME FRUITS, STONE FRUITS, TREE NUTS, AND PISTACHIO ORCHARDS:** Orchard Master® CA consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with ground equipment. Orchard Master® CA is intended for directed applications to emerged broadleaf weeds in established plantings of pome fruits, stone fruits and tree nuts. This product may be applied as a broadcast treatment to the vegetation in the row middles of established trees, and this product may be applied as a band application to control the weeds in the tree rows. Transplanted stock and established trees must be at least one (1) year old and in vigorous condition.

**SPRAY PREPARATION:** Check the spray tank for cleanness before preparing the spray solution. Orchard Master® CA should be mixed with water. Surfactants or wetting agents are not recommended for broadcast treatments. Anti-drift agents approved by the U.S. EPA are compatible with this product. To avoid subsequent injury to horticultural crops or other sensitive crops, immediately clean spray equipment and dispose the rinsates according to label instructions.

**METHODS OF APPLICATION AND APPLICATION SCHEDULES:** Use a fixed boom equipped with flat fan nozzles or low/reduced pressure nozzles that deliver coarse spray droplets at low pressures (20 to 25 psi). Spot treatments are appropriate for individual weeds, for sparse infestations, for small areas, or as

follow-up treatments. Apply precisely and uniformly to obtain satisfactory weed control and to minimize the injury to the trees. Avoid contact with fruit, foliage, stems, lower limbs, tree trunks, and exposed roots. Do not apply when weather conditions favor drift from the treated area. Early spring and late fall applications after harvest are preferred. Sequential applications may be needed to control perennial broadleaf weeds.

Preferred application schedules		
Weed Type	Season	Growth Stage of the Weeds
Annual broadleaf	Spring or fall	Active growth.
Biennials	Spring or fall	During the seedling to rosette stages. Sequential treatments.
Perennials	Spring or fall	During the early bud to bloom stage and during fall regrowth. Sequential treatments.

**TANK MIXTURES:** Orchard Master® CA may be applied in tank mixtures for improved broadleaf control. 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 product and use sites are registered. In addition, certain states or geographic regions may have established dosage rate limitations. Consult your State Pesticide Control Agency for additional information.

This product may be tank mixed with these herbicides.	
Common Name	Trade Name, Including But Not Limited To:
glyphosate	Roundup® Herbicide and Roundup® Ultra Herbicide

**IRRIGATION:** In California, do not apply to sandy or shallow soils and do not apply to dry soil without vegetation. Apply this product to moist soils, after irrigation, or after rainfall. Do not apply immediately before irrigation. Do not irrigate immediately following application. Best results are obtained when this product is applied two (2) days following irrigation. Do not apply this product through any type of irrigation system.

### Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

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**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Additional requirements for aerial applications.** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

**DOSAGE RATES FOR BROADLEAF WEED CONTROL, POME FRUITS, STONE FRUITS, TREE NUTS, AND PISTACHIO ORCHARDS:** Dosage rate recommendations are for broadcast applications. For banded, row, or strip treatments, the amount of product should be adjusted according to this formula:

$$\text{Dosage Rates per Treated Acre} = \frac{\text{Spray Band Width} \times \text{Broadcast Rate per Acre}}{\text{Tree Row Width}}$$

Spray volumes of 2-10 gallons per acre are recommended. Spray volumes of 10 to 25 gallons per acre may be needed for adequate coverage of weeds.

## ORCHARDS

**POME FRUITS (APPLE AND PEAR):** Orchard Master® CA is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two (2) broadcast applications with a 75 day treatment interval may be made per crop. Avoid contact with fruit foliage, stems, lower limbs, tree trunks, and exposed roots. Do not harvest within 14 days of application. Do not cut orchard floor forage for hay within 7 days of application.

**STONE FRUITS (SWEET OR TART CHERRY, PEACH, OR PLUM/FRESH PRUNES):** Orchard Master® CA is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two applications with a 75 day treatment interval may be made per crop. Do not harvest these stone fruits within forty (40) days of application. Avoid contact with fruit, foliage, stems, lower limbs, tree trunks, and exposed roots. Do not cut orchard floor forage for hay within 7 days of application.

**TREE NUTS (ALMOND, FILBERT OR HAZELNUT, PECAN, BLACK AND ENGLISH WALNUT):** Orchard Master® CA is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two applications



with a 30 day treatment interval may be made per crop. Do not harvest these tree nuts within sixty (60) days of application. Do not cut orchard floor forage for harvest within 7 days of application.

**PISTACHIO:** Orchard Master® CA is effective at 2.0 to 3.0 pints of product per acre per application (1.0 to 1.4 pounds of acid equivalent/acre) as a broadcast treatment to the orchard floor. A maximum of two applications with a 30 day treatment interval may be made per crop. Do not harvest these tree nuts within sixty (60) days of application. Do not cut orchard floor forage for hay within 7 days of application.

Crop	Application Rate	Maximum Number of Broadcast Applications per Crop Year	Recommended Spray Volume	Preharvest Interval <sup>1</sup>
<b>Pome Fruits:</b> Apple & Pear	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2	2 to 10 gal/A	14
<b>Stone Fruits:</b> Sweet or Tart Cherry, Peach, or Plum	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2	2 to 10 gal/A	40
<b>Tree Nuts:</b> Almond, Filbert or Hazelnut, Pecan, English & Black Walnut	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2	2 to 10 gal/A	60
<b>Pistachio:</b>	2.0 to 3.0 pints/A (1.0 to 1.4 lb 2,4-D ae/A)	2	2 to 10 gal/A	60

<sup>1</sup>Preharvest interval is defined as the minimum number of days between the last application of this product and harvest.

**GREEN SUCKER CONTROL IN FILBERTS:** This treatment is intended to suppress suckers that decrease filbert production in bearing trees. Mix 2.0 pints of product with 100 gallons of water (0.95 lbs. of acid equivalent per 100 gallons of water) to prepare a 0.25% vol/vol spray solution. A nonionic surfactant is recommended. Refer to the labeling of the surfactant for precautions and suggested concentrations. Spray guns, high volume wands, or similar types of equipment may be used. Spray volumes will depend upon the height, density, and equipment type. Apply the diluted spray to all leaves and stems of the suckers that are 6 to 9 inches in height during April through August. The maximum number of applications is four (4) per season. Allow a minimum of 30 days between applications. Do not harvest filberts within forty-five (45) days of application for this method of application.

**SPOT TREATMENTS:** For orchard floors, spot treatments are appropriate for sparse infestations of broadleaf weeds, for small areas, or for follow-up treatments. Spray guns, high volume wands, or similar types of equipment may be used. Select nozzles that deliver coarse spray patterns to reduce the potential of nontarget drift. Spray volumes will depend upon the height, density, weeds species, and equipment type. ~~Mix 1.0 to 2.0 gallons of product with 100 gallons of water, or prepare a 1.0 to 2.0% vol/vol spray solution. Or, mix 1.25 to 2.5 fl.oz. of product with one (1.0) gallon of water.~~ Mix 3.0 pints of product per acre with adequate water (100 to 400 gallons). Or, prepare a spray concentration of 0.1% to 0.4% vol/vol spray solution. Refer to the table below for additional spray preparation. Apply diluted sprays to allow complete wetting of the foliage of the broadleaf weeds. Do not use spot treatments with spray guns around or near the base of the tree trunks for these stone fruits and nuts.

Amount of product needed to prepare 100 to 400 gallons of spray solution with water as spot treatments for orchard floors with high volume foliar applications.				
Spray Solution	0.10% vol/vol	0.13% vol/vol	0.20% vol/vol	0.40% vol/vol
100 gal/A	12 fl.oz. (0.7 pints)	16 fl.oz. (1.0 pints)	22 fl.oz. (1.4 pints)	3.0 pt
200 gal/A	1.4 pints	2.0 pints	3.0 pints	
300 gal/A	2.0 pints	3.0 pints		
400 gal/A	3.0 pints			

**PARTIAL LISTING OF BROADLEAF WEEDS CONTROLLED:** Orchard Master® CA controls many broadleaf weeds including the following: **Annual and Biennial Weeds:** Lambsquarters, Prickly Lettuce, Tall Morningglory, Ragweed, Shepherdspurse, Annual Sowthistle, Tansy Ragwort, Pepperweed, Redroot Pigweed, and Yellow Starthistle. **Perennial Weeds:** Bindweed, Blue Lettuce, Canada thistle, Dandelion, Docks, St. Johnswort, Whitetop (Hoary Cress).

**END OF SUBLABEL 4**

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## SUBLABEL 5

### Hi-Dep® IVM Broadleaf Herbicide

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#### **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.

PPE required 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 is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- 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:** Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

#### **USE INSTRUCTIONS**

Hi-Dep® IVM consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with aerial and ground equipment. For all methods of application, apply the spray solution in properly maintained and calibrated equipment capable of delivering the desired spray volumes. Follow the spray equipment manufacturer's directions for cleaning, adjusting pressure, and selecting appropriate nozzles. 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 a minimum spray volume of 2.0 gallons per acre for ground and aerial applications.

**AIRCRAFT SPECIFICATIONS (FIXED WING OR ROTARY WING):** 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. See manufacturer's technical bulletin regarding nozzles and application specifications.

**GROUND APPLICATION:** Use conventional power spray equipment fitted with a boom, off-center nozzles, or spray gun for broadcast and spot treatments with high volume and low volume foliar applications. Spray equipment may range from an engine driven pump system (e.g. tractor, truck, trailer, all terrain vehicle ATV, wet-blade mowers) to self propelled sprayers. Backpack sprayers, knapsack sprayers, compression sprayers, and hand operated sprayers are appropriate for foliar applications and low volume directed spray applications (basal bark, stem applications).

**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.

<b>WEEDS CONTROLLED</b>			
Use Hi-Dep® IVM to control many broadleaf weeds including:			
<b>PERENNIAL WEEDS</b>			
Artichoke	Dandelion	Leafy spurge	Strawberry (wild)
Aster	Dock	Locoweed	Tall buttercup
Austrian fieldcress	Dogbane	Mugwort	Tanweed
Bindweed	Dogfennel	Nettles	Toadflax
Blackeyed susan	Goldenrod	Orange hawkweed	Vervain
Blue lettuce	Ground ivy	Povertyweed	Whitetop (hoary cress)
Canada thistle	Healall	Rush, slender	Wild garlic
Catnip	Hemlock	Sowthistle	Wild onion
Chicory	Ironweed	St. Johnswort	Wild sweet potato
Clover (many types)	Knapweed	Stinging nettle	Yellow rocket
Coffeeweed	(spotted Russian, diffuse)		
<b>ANNUAL AND BIENNIAL WEEDS</b>			
Beggarticks	Galinsoga	Mediterranean sage	Shepherdspurge
Bitterweed	Goatsbeard	Miners lettuce	Sneezeweed
Black medic	Goosefoot	Morningglory (annual)	Sowthistle (common)
Broomweed	Groundsel	Musk thistle	Spanishneedles
Bull thistle	Gumweed	Mustard	Sunflower
Burdock	Henbit	Parsnip	Tansy mustard
Carpetweed	Jewelweed	Pennycress	Tansy ragwort
Catchweed bedstraw	Jimsonweed	Pepperweed	Tumbleweed
Chickweed	Jim Hill mustard	Pigweed (redroot)	Tumble pigweed
Cinquefoil	(Tumble mustard)	Plantain	Velvetleaf
Cockle	Knotweed	Prickly lettuce	Vetch
Cocklebur	Lambsquarters	Primrose	Wild carrot
Croton	Lettuce (wild)	Puncturevine	Wild parsnip
Devilsclaw	Mallow	Radish (wild)	Wild turnip
Falseflax	Marestail (horseweed)	Ragweed	Witchweed
Fleabane (daisy)	Marijuana	Russian thistle	Wormwood
Flixweed	Marshelder	Scotch thistle	Yellow starthistle
Frenchweed			
<b>ALSO CERTAIN 2,4-D SUSCEPTIBLE WOODY PLANTS SUCH AS:</b>			
Big sagebrush	Elderberry	Pine	Shinnery oak
Buckbrush	Hazel	Poison ivy	Sumac
Cedar	Locust	Poison oak	Tropical soda apple
Chamise	Macartney rose	Rabbitbrush	Willow
Cherokee rose	Manzanita	Sagebrush	
Coastal sage	Multiflora rose		

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## **Spray Drift Management**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Additional requirements for aerial applications.** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

## **NONCROPLAND**

Noncropland including fencerows, hedgerows, roadsides, drainage ditchbanks, firebreaks, highway rights-of-way, utility rights-of-way, airports/airfields, vacant lots and industrial sites. Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications
Woody plants	Broadcast and high volume foliar	1.0 gal/A or 8 pints/A (4.0 lb 2,4-D ae/A)	1	N/A

**High volume foliar applications (100 to 400 gallons per acre):** Apply 0.25 to 1.0 gallon of product per acre with adequate water or apply a 0.25 to 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 to 400 gallons of spray solution per treated acre. The spray preparation chart for applications on a spray-to-wet basis is shown below.

**Woody Plants:** Instructions for preparing 100 to 400 gallons of spray solution at 0.25 to 1.0% spray concentration with water for high volume foliar applications.

Spray solution	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
100 gal/A	0.25 gal.	0.33 gal.	0.5 gal.	1.0 gal.
200 gal/A	0.5 gal.	0.67 gal.	1.0 gal.	----
300 gal/A	0.75 gal.	1.0 gal.	----	----
400 gal/A	1.0 gal.	----	----	----

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

**For Backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers**

**Woody Plants:** Instructions for preparing 1 to 3 gallons of spray solution at 0.25 to 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 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. 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.

**Broadcast applications to annual and perennial weeds in noncropland:** Airfields, Roadsides, Vacant Lots and Drainage Ditchbanks. Apply to emerged weeds. For best results, treat when weeds are young and actively growing. Use 1.0 to 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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications	Minimum Spray Volume	Recommended Spray Volume
Annual and perennial weeds	Broadcast	2.0 quarts/A or 4 pints/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A	2 to 10 gal/A

**Utility and Pipeline Rights-of-Way --** For woody plants: Use up to 1/2 to 1 gallon per acre of Hi-Dep® IVM in tank mix combination with other herbicides labeled for rights-of-way and with spray volumes greater than 2 gallons per acre.

**TANK MIXTURES FOR INDUSTRIAL/NONCROPLAND AREAS:** Hi-Dep® IVM, a mixed amine salt of 2,4-D, can be applied as a tank mixture with other recommended herbicides such as Garlon®, Escort®, Tordon®, Banvel®, Vanquish®, and Accord® 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® IVM.

**Backpack -** Use 3 to 5% solution of Hi-Dep® IVM in tank mix combinations with other herbicides labeled for rights-of-way sites and apply in a total spray volume of 5 to 20 gallons per acre.

**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. Use only one injection application per year.

**For Concentrate Injection:** Use 1 to 2 ml. of concentrate per injection site. 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® IVM 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® IVM in combination with 1 quart of Tordon®, or 2 quarts of Hi-Dep® IVM plus 2 quarts of Banvel®, or 2 quarts of Hi-Dep® IVM plus 1 pint of Tordon® plus 1 quart of Banvel®. Rates are on a per acre basis.

Mix with water with spray volumes of 2 to 10 gallons per acre with conventional equipment. Add a nonionic agricultural surfactant at 0.25% by vol./vol. (e.g. 1 quart of surfactant per 100 gallons of solution).

**IMPORTANT:** Before using HI-DEP® IVM, TORDON® and/or BANVEL® in these combinations, read and carefully observe the precautionary statements and all other information appearing on the product labels.

**Broadcast applications to annual and perennial weeds in noncropland: Airfields, Roadsides, Vacant Lots and Drainage Ditchbanks.**

Apply to emerged weeds. For best results, treat when weeds are young and actively growing. Use 1.0 to 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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications	Minimum Spray Volume
Annual and perennial weeds	Broadcast	2.0 quarts/A or 4 pints/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A

**Spot treatments for annual and perennial weeds**

**Backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers:**

Instructions for preparing 1 to 3 gallons of spray solution at 0.25 to 1.0% spray concentration with water for high volume foliar applications.					
Gallons of Water	Approx. treated area	Amount Of Product Needed for Spray Concentration of:			
		0.25 %	0.33 %	0.5 %	1.0 %
1	800 sq.ft.	2 teaspoons	3 teaspoons	4 teaspoons	8 teaspoons
2	1600 sq.ft.	4 teaspoons	2 tablespoons	3 tablespoons	6 tablespoons
3	2400 sq.ft.	2 tablespoons	3 tablespoons	4 tablespoons	8 tablespoons
Equal measures: 1 fl.oz. = 2 Tablespoons (Tbs.) = 6 Teaspoons (tsp.)					

~~Use 1.0 to 3.0 quarts of product per acre. Treat when weeds are young and growing well. Usually 2 quarts of product per acre will provide adequate weed control.~~

**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 to 2.0 quarts of product per acre. 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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications	Minimum Spray Volume
Annual and perennial weeds	Broadcast	2.0 quarts/A or 4 pints/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A

Herbicide combinations offer advantages including improved weed control, reduced cost, and greater selectivity. Generally herbicide combinations with Hi-Dep® IVM provide an additive response, and the minimum dosage rate recommended for Hi-Dep® IVM in tank mixtures is 1.0 pint of product (0.25 pounds acid equivalent per acre).

**Broadcast applications to annual and perennial weeds in Ornamental Turfgrass (Lawns, Golf Courses, Cemeteries, and Parks)**

Use 1.0 to 1.5 quarts of product per acre. The maximum application rate is 1.5 quarts of product per acre per application (1.5 lbs 2,4-D acid equivalent per acre per application). The maximum number of broadcast applications is limited to 2 per year. The maximum seasonal rate is 3.0 quarts of product per acre (3.0 lbs 2,4-D acid equivalent per acre), excluding spot treatments.



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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.

**END OF SUBLABEL 5**

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## SUBLABEL 6

### Gordon's Pasture Pro(TM) Broadleaf Herbicide

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#### **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.

PPE required 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 is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- 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:** Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

#### **Use Instructions**

Pasture Pro(TM) consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with aerial and ground equipment. 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.

**AERIAL APPLICATION:** Use spray volumes greater than 2 gallon per acre. This minimum spray volume is a requirement of the 2,4-D Reregistration Eligibility Decision (RED). Spray volume at this minimum provide more effective weed control and better economy.

**AIRCRAFT SPECIFICATIONS (FIXED WING OR ROTARY WING):** 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. See manufacturer's technical bulletin regarding nozzles and application specifications.

**GROUND APPLICATION:** Apply in water, 2 to 10 gallons total solution per acre with conventional equipment. Low spray volumes (2 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.

**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.

<b>WEEDS CONTROLLED</b>			
Use Pasture Pro(TM) to control many broadleaf weeds including:			
<b>PERENNIAL WEEDS</b>			
Artichoke	Dandelion	Leafy spurge	Strawberry (wild)
Aster	Dock	Locoweed	Tall buttercup
Austrian fieldcress	Dogbane	Mugwort	Tanweed (Swamp Smartweed)
Bindweed	Dogfennel	Nettles	Toadflax
Blackeyed susan	Goldenrod	Orange hawkweed	Vervain
Blue lettuce	Ground ivy	Povertyweed	Whitetop (hoary cress)
Canada thistle	Healall	Rush, slender	Wild garlic
Catnip	Hemlock	Sowthistle	Wild onion
Chicory	Ironweed	St. Johnswort	Wild sweet potato
Clover (many types)	Knapweed	Stinging nettle	Yellow rocket
Coffeeweed	(spotted Russian, diffuse)		
<b>ANNUAL AND BIENNIAL WEEDS</b>			
Beggarticks	Galinsoga	Mediterranean sage	Shepherdspurse
Bitterweed	Goatsbeard	Miners lettuce	Sneezeweed
Black medic	Goosefoot	Morningglory (annual)	Sowthistle (common)
Broomweed	Groundsel	Musk thistle	Spanishneedles
Bull thistle	Gumweed	Mustard	Sunflower
Burdock	Henbit	Parsnip	Tansy mustard
Carpetweed	Jewelweed	Pennycress	Tansy ragwort
Catchweed bedstraw	Jimsonweed	Pepperweed	Tumbleweed
Chickweed	Jim Hill mustard	Pigweed (redroot)	Tumble pigweed
Cinquefoil	(Tumble mustard)	Plantain	Velvetleaf
Cockle	Knotweed	Prickly lettuce	Vetch
Cocklebur	Kochia	Primrose	Wild carrot
Croton	Lambsquarters	Puncturevine	Wild parsnip
Devilsclaw	Lettuce (wild)	Radish (wild)	Wild turnip
Falseflax	Mallow	Ragweed	Witchweed
Fleabane (daisy)	Marestail (horseweed)	Russian thistle	Wormwood
Flixweed	Marijuana	Scotch thistle	Yellow starthistle
Frenchweed	Marshelder		
<b>ALSO CERTAIN 2,4-D SUSCEPTIBLE WOODY PLANTS SUCH AS:</b>			
Big sagebrush	Elderberry	Pine	Shinnery oak
Buckbrush	Hazel	Poison ivy	Sumac
Cedar	Locust	Poison oak	Tropical soda apple
Chamise	Macartney rose	Rabbitbrush	Willow
Cherokee rose	Manzanita	Sagebrush	
Coastal sage	Multiflora rose		

**Spray Drift Management**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide

drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Additional requirements for aerial applications.** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

**PASTURE AND RANGELAND**

Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production such as Conservation Reserve program (CRP). Pasture Pro(TM) may be applied postemergence to newly seeded and established grasses grown in pastures, rangelands and Conservation Reserve Program (CRP) acres.

**NEWLY SEEDED AREAS (Applications after the 5 to 6 -leaf stage of grass seedlings.):** Pasture Pro(TM) may be applied to newly seeded perennial grasses or to the newly seeded grasses grown with a companion/cover crop such as small grains. Postemergent 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 0.75 to 1 pint of Pasture Pro(TM) as a broadcast treatment to control annual broadleaf weeds. Biennial and perennial weeds may require follow-up or sequential treatments.

**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. Treatments of Pasture Pro(TM) 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.

<b>Broadcast application rates with ground and aerial equipment to Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production.</b>			
<b>Weed Types</b>	<b>Rate per Application</b>	<b>Recommended Spray Volume</b>	<b>When to Apply</b>
Susceptible annual and biennial broadleaf weeds	1.0 quarts/A (1.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during active growth
Moderately susceptible biennial and perennial broadleaf weeds	1.0 to 2.0 quarts/A (1.0 to 2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during seedling to rosette stage
For difficult to control weeds and woody plants	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 10 gal/A	Spring or fall during bud to bloom stage. A second application may be required
Spot treatment	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 10 gal/A	

ae = Acid Equivalent. Do not use on alfalfa, clover or other legumes. Do not use on newly seeded areas until grass is well established.

<b>Limitations on 2,4-D pasture and rangeland (established grass pastures, rangeland, and perennial grasslands, not in agricultural production).</b>						
<b>Application Schedule</b>	<b>Maximum Rate per Application</b>	<b>Maximum Number of Applications per Year</b>	<b>Minimum Interval Between Applications</b>	<b>Minimum Spray Volume</b>	<b>Pregrazing Interval</b>	<b>Preharvest Interval (PHI)</b>
Postemergent	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A	0 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 1 gallon (4.0 lb 2,4-D ae) per acre per season. Do not apply within 30 days of the previous application. Do not cut forage for hay within 7 days of application. If grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard (WPS) are applicable. For program lands such as the Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this labeling must be followed.

**Spray Volumes:** Use a minimum spray volume of 2.0 gallons per acre for ground and aerial applications.

**TANK MIXTURES FOR PASTURE AND RANGELAND [AND LEAFY SPURGE]:** Pasture Pro(TM), 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 Pasture Pro(TM).

<b>Products</b>	<b>Amount of Product</b>
Hi-Dep® + Banvel®	1 to 2 quarts/A + 1 to 2 pints/A
Hi-Dep® + Tordon® 22K	1 to 2 quarts/A + 1/4 to 2 pints/A
Hi-Dep® + Tordon® 22K + Banvel®	1 to 2 quarts/A + 1/4 to 2 pints/A + 1/2 to 1 qt/A

**SPOT TREATMENTS with Pasture Pro(TM) alone as a high volume foliar treatment. 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 Pasture Pro(TM).

For Pasture Pro(TM) alone, mix 2.0 gallons of Pasture Pro(TM) 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).

**MESQUITE MANAGEMENT IN PERMANENT GRASS PASTURE AND RANGELAND:** Pasture Pro(TM) and three tank mixtures have proven effective on mesquite in pasture and rangeland in Texas, Oklahoma, Arizona, and New Mexico. Pasture Pro(TM) can be tank mixed with Reclaim® Herbicide, Remedy® 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.

Pasture Pro(TM), Reclaim® Herbicide, and Remedy® 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: 1. 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. 2. 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.

Foliar Broadcast Treatments Using Aerial and Ground Equipment				
Tank Mix and Application Rate	Approved States	Spray Volume	Rate of Surfactant for Water Solutions	Emulsifiers for Oil:Water Emulsions
Pasture Pro(TM) 2 quarts/A (1.9 lb 2,4-D ae/A)	New Mexico Oklahoma Texas Arizona	<b>Aerial</b> >2 to 4 gal/A  <b>Ground</b> 2 to 10 gal/A	---	---
Pasture Pro(TM) 1.0 quarts/A (0.95 lb 2,4-D ae/A)  PLUS  Reclaim® Herbicide 0.34 to 0.67 quarts/A (0.25 to 0.50 lb clopyralid ae/A)	New Mexico Oklahoma Texas	<b>Aerial</b> ≥2 gal/A  <b>Ground</b> 10 to 20 gal/A	0.25%v/v	Sponto 712, Triton X-100
For Reclaim® Herbicide tank mix: 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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Foliar Broadcast Treatments Using Aerial and Ground Equipment				
Tank Mix and Application Rate	Approved States	Spray Volume	Rate of Surfactant for Water Solutions	Emulsifiers for Oil:Water Emulsions
Pasture Pro(TM) 1.0 quarts/A (0.95 lb 2,4-D ae/A)  PLUS  Remedy® Herbicide 0.50 quarts/A (0.50 lb triclopyr ae/A)	New Mexico Oklahoma Texas Arizona	<b>Aerial</b> ≥2 gal/A (≥4 gal/A for South Texas Mixed Brush)  <b>Ground</b> >10 gal/A	<b>Aerial</b> 0.25%v/v  <b>Ground</b> 0.50%v/v	Sponto 712, Triton X-100
For Remedy® Herbicide tank mix: Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or 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.				
Pasture Pro(TM) 1.0 quart/A (0.95 lb 2,4-D ae/A)  PLUS  Grazon® PC Herbicide 0.5 to 1.0 quart/A (0.25 to 0.50 lb picloram ae/A)	New Mexico Oklahoma Texas	<b>Aerial</b> ≥2 gal/A (≥4 gal/A for South Texas Mixed Brush)  <b>Ground</b> 10 to 25 gal/A	0.50%v/v	Sponto 712, Triton X-100
For Grazon® PC Herbicide tank mix: 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).				

**Water Solution Spray Preparation:** Pasture Pro(TM) 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.

**Oil:Water Emulsion Spray Preparation:** 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. 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. **Aerial Applications:** Prepare an oil-water emulsion with a 1:5 ratio by adding a premix 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. **Ground Application:** The amount of oil in the spray mixture will range from 5% to 10% (Reclaim® Herbicide or Remedy® Herbicide tank mixes) or 15% to 20% (Grazon® PC Herbicide tank mixes) or the total spray mixture, and the maximum rate of oil should not exceed 1.0 gallon per acre.

**SPOT TREATMENTS of mesquite with Pasture Pro(TM) plus Reclaim® as a high volume foliar treatment**

**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. Pasture Pro(TM) may be applied alone or in combination with Reclaim® in a dilution with water or in an oil-water emulsion.

For Pasture Pro(TM) alone, mix 2.0 gallons of Pasture Pro(TM) per 100 gallons of water (2.0% spray concentration). For Pasture Pro(TM) plus Reclaim® tank mixture, mix 1 gallon of Pasture Pro(TM) plus 0.5 to 0.75 gallon of Reclaim® Herbicide per 100 gallons of water (1.0% and 0.5 to 0.75% spray concentration of Pasture Pro(TM) and Reclaim®, respectively). See Chart 3 for additional instructions for the spray preparation of 100 gallons of spray solution. See spray preparation table below for mixing 100 gallons of spray.

Spray Preparation Table for Mixing 100 Gallons of Spray Solution						
Application Type and Spray Concentration	Amounts of Products to Make 100 Gallons of Spray Solution					
	Pasture Pro(TM)	Reclaim®	Water	Oil	X-77 Spreader	Emulsifier
Water Dilution 2.0%v/v	2.0 gal	-----	98.0 gal	-----	-----	-----
Water Dilution 1.0%v/v + (0.5 to 0.75%v/v)	1.0 gal	0.5 to 0.75 gal	98.0 to 98.25 gal	-----	0.25 gal	-----
Oil Emulsion 1.0%v/v + (0.5 to 0.75%v/v)	1.0 gal	0.5 to 0.75 gal	93.1 to 93.40 gal	5.0 gal	-----	0.12 gal

Nonionic agricultural surfactants may be substituted for X-77 Spreader®. Emulsifiers such as Triton® X-100, Sponto® 712 are added at the rate of 3 fl. ozs. per gallon of oil.  
For Oil-Water Emulsions: 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.

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.

### 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 seedling grass only after the 5-leaf stage, using 3/4 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.

Limitations on 2,4-D applications to grass seed crops					
Use Site	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Preharvest Interval (PHI)
Grass Seed Crops	4.0 pints/A (2.0 lb 2,4-D ae/A)	2	21 Days	2 gal/A	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 8.0 pints (4.0 lb 2,4-D ae) per acre per season, excluding spot treatments. Do not cut forage for hay/straw within 7 days of application.

### NONCROPLAND

Noncropland including fencerows, hedgerows, roadsides, drainage ditchbanks, firebreaks, highway rights-of-way, utility rights-of-way, airports/airfields, vacant lots and industrial sites. Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**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 Rate per Application	Maximum Number of Applications per year	Minimum Interval between applications
Woody plants	Broadcast and high volume foliar	1.0 gal/A or 8 pints/A (4.0 lb 2,4-D ae/A)	1	N/A

**High volume foliar applications (100 to 400 gallons per acre):** Apply 0.25 to 1.0 gallon of product per acre with adequate water or apply a 0.25 to 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 to 400 gallons of spray solution per treated acre. The spray preparation chart for applications on a spray-to-wet basis is shown below in Table 1.

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

Spray solution	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
100 gal/A	0.25 gal.	0.33 gal.	0.5 gal.	1.0 gal.
200 gal/A	0.5 gal.	0.67 gal.	1.0 gal.	----
300 gal/A	0.75 gal.	1.0 gal.	----	----
400 gal/A	1.0 gal.	----	----	----

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

**For Backpack sprayers, knapsack sprayers, and hand-pressurized pump sprayers**

**Table 2.** Instructions for preparing 1 to 3 gallons of spray solution at 0.25 to 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.

**END OF SUBLABEL 6**

## **APPENDIX FOR SUBLABEL 1**

### **1. Advertising claims that may be presented on container labels:**

- Registered for use on pastures
- 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.
- Low Odor Formula

### **2. Trademark acknowledgement statements.**

- Hi-Dep® is a registered trademark of PBI/Gordon Corporation. US Patent No. 4,971,630.
- Acme(TM) is a trademark of PBI/Gordon Corporation.
- Garlon®, Tordon®, Reclaim®, Remedy® and Grazon® are registered trademarks of DowAgroSciences.
- Nalco-Trol® is a registered trademark of Nalco Chemical Company Corporation
- Triton® X-100 is a registered trademark of Union Carbide Corporation.
- Sponto® 712 is a registered trademark of Retzloff Chemical Company Corporation
- AAtrex®, Bicep®, Dual®, and Nine-O® are registered trademarks and Dual Magnum(TM) is a trademark of Sygenta Crop Protection, Inc.
- Roundup® is a registered trademark of Monsanto Agricultural Products Co.
- Arsenal®, Banvel®, and Marksman® are registered trademarks and Clarity(TM) is a trademark of BASF Corporation.
- X-77 Spreader® is a registered trademark of Kalo Laboratories, Inc. Corporation
- Buctril® Brand Herbicide is a registered trademark of Bayer CropScience.

## **APPENDIX FOR SUBLABEL 2**

### **1. Trademark acknowledgement statements.**

- Hi-Dep® is a registered trademark of PBI/Gordon Corporation. US Patent No. 4,971,630.

## **APPENDIX FOR SUBLABEL 3**

### **1. Trademark acknowledgement statements.**

- Orchard Master® is a registered trademark of PBI/Gordon Corporation. US Patent No. 4,971,630.
- Roundup® is a registered trademark of Monsanto Agricultural Products Co.
- Banvel® is a registered trademark of BASF Corporation.
- Tordon® is a registered trademark of DowAgroSciences.

## **APPENDIX FOR SUBLABEL 4**

### **1. Trademark acknowledgement statements.**

- Orchard Master® is a registered trademark of PBI/Gordon Corporation. US Patent No. 4,971,630.
- Roundup® is a registered trademark of Monsanto Agricultural Products Co.

## **APPENDIX FOR SUBLABEL 5**

### **1. Trademark acknowledgement statements.**

- Hi-Dep® is a registered trademark of PBI/Gordon Corporation. US Patent No. 4,971,630.
- Garlon® and Tordon® are registered trademarks of DowAgroSciences.
- Banvel® and Vanquish® are registered trademarks of BASF Corporation.
- Accord® is a registered trademark of Monsanto Agricultural Products Co.
- Escort® is a registered trademark of E.I DuPont de Nemours & Company, Inc.

## **APPENDIX FOR SUBLABEL 6**

### **1. Advertising claims that may be presented on container labels:**

- No waiting between treatment and grazing for non-lactating animals when used alone.
- Premium pasture herbicide for tough weed and brush control. Knocks out thistles, wild roses, buckbrush and more!
- Controls noxious weeds including Canada thistle, musk thistle, and leafy spurge.
- Controls weeds with spines and thorns which may cause injury to animals. Also controls poison ivy, poison oak, and sumac.
- Mesquite management directions included.
- Suitable for pastures grown for hay.
- Spot treatments are recommended for woody species in fencerows, including multiflora rose, McCartney rose, southern wild rose, and thistles.
- Registered for use on pastures
- Controls thistles, wild roses, and many other broadleaf weeds and brush in pastures.

### **2. Trademark acknowledgement statements.**

- Pasture Pro(TM) is a trademark of PBI/Gordon Corporation. US Patent No. 4,971.630
- Tordon®, Reclaim®, Remedy® and Grazon® are registered trademarks of DowAgroSciences.
- Nalco-Trol® is a registered trademark of Nalco Chemical Company Corporation
- Triton® X-100 is a registered trademark of Union Carbide Corporation.
- Sponto® 712 is a registered trademark of Retzloff Chemical Company Corporation
- Banvel® is a registered trademark of BASF Corporation.
- X-77 Spreader® is a registered trademark of Kalo Laboratories, Inc. Corporation

## **APPENDIX FOR ALL SUBLABELS**

### **1. Statements which may appear on different label components depending on packaging configuration.**

- See next panel for additional Precautionary Statements and First Aid
- Net Contents: \_\_\_\_\_
- EPA Est. No. \_\_\_\_\_

## **DOCUMENT CONTROL INFORMATION**

**1. Unique Label Identifier:** 002217-00703.20081003.proposed.doc

**2. Reason for Issue:** Respond to 9/16/08 EPA Accepted with Comments letter. Changes on pages 2, 3, 4, 9, 11, 23, 34, 40, 46, 47, 55.