

## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

January 18, 2024

Scott A. Pace Director of Registration Drexel Chemical Company P.O. Box 13327 Memphis, TN 38113

Subject: Label Amendment – Label Revisions, including adding self-imposed restrictions Product Name: Drexel Imitator + 2,4-D EPA Registration Number: 19713-635 Application Date: August 9, 2022 Case Number: 481974

Dear Scott A. Pace:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or Page 2 of 2 EPA Reg. No. 19713-635 Case No. 481974

claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Jamie Millard at (202) 566-2726 or by email at millard.jamie@epa.gov.

Sincerely,

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Mindy Ondish Product Manager 23 Herbicide Branch Registration Division (7505T) Office of Pesticide Programs

Enclosure

# ACCEPTED 01/18/2024

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 19713-635





<sup>35</sup> Drexel。 Imitator<sub>®</sub> + 2,4-D

FOR THE CONTROL OF THISTLES, VINES AND OTHER LISTED WEEDS.

#### **ACTIVE INGREDIENTS\*:**

Glyphosate: N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	. 12.9%
2,4-D: 2,4-dichlorophenoxyacetic acid, in the form of its isopropylamine salt	. 20.6%
OTHER INGREDIENTS:	66.5%
TOTAL:	100.0%

\*Contains 144 grams per liter or 1.2 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt and 227 grams per liter or 1.9 pounds per U.S. gallon of the active ingredient 2,4-D, in the form of its isopropylamine salt. Equivalent to 108 grams per liter or 0.9 pound per U.S. gallon of the acid, glyphosate, and 182 grams per liter or 1.5 pounds per U.S. gallon of the acid, 2,4-D.

## **KEEP OUT OF REACH OF CHILDREN** DANGER/PELIGRO

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

## See FIRST AID Below

EPA Reg. No. 19713-635 EPA Est. No. 19713-XX-XXX

**FIRST AID** 

Net Content:

#### IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- · Call a poison control center or doctor for treatment advice.

#### IF INHALED:

- · Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

#### IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything to an unconscious person.

#### HOT LINE NUMBER:

Have product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC at (800) 424-9300.

## PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

**DANGER:** Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Do not get in eyes or on clothing. Avoid breathing spray mist. Avoid contact with skin. **PERSONAL PROTECTIVE EQUIPMENT (PPE):** 

Some of the materials that are chemical-resistant to this product are listed below. 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: Long-sleeved shirt and long pants, shoes plus socks, protective eyewear (goggles, face shield, or safety glasses), chemical-resistant gloves, chemical resistant apron when mixing or loading, cleaning up spills or equipment or otherwise exposed to the concentrate.

See "ENGINEEERING CONTROLS" for additional requirements.

Chemical-resistant gloves are required when applying with any handheld nozzle or equipment. A chemical resistant apron plus chemical resistant gloves are required when mixing, loading, cleaning up spills or equipment or when otherwise exposed to this product's concentrate. For applicators applying this product from a tractor that has a completely enclosed cab, eye protection is not required.

Wash hands, face, and arms, with soap and water as soon as possible after mixing, loading, or applying this product. Wash hands, face, and arms, with soap and water before eating, smoking, or drinking. Wash hands and arms before using toilet. After work, remove all clothing and shower using soap and water.

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

## **ENGINEERING CONTROLS:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.607(d-f). 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 170.607(f). IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for applicators and other handlers and have such PPE immediately available for use in an emergency, such as spill or equipment breakdown.

## USER SAFETY RECOMMENDATIONS

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) 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. 3) 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. Remove and wash contaminated clothing before use.

#### ENVIRONMENTAL HAZARDS

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

Drift or runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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

## PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas that may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Supplemental 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 regulations.

Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, *et. al.* v. EPA, C01-0132, (W.D. WA). For further information, please refer to <u>http://www.epa.gov/espp/litstatus/wtc/index.htm.</u>

#### 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 statement on this label about personal protective equipment (PPE), 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 waterproof 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, nurseries, or greenhouses. Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

#### PRODUCT INFORMATION

IMITATOR + 2,4-D is a post-emergence herbicide for control or suppression of emerged weeds in fallow and reduced tillage systems prior to planting or emergence of wheat, barley, corn, oats, rye, or sorghum (grain or forage), and as a spot treatment in corn, sorghum, forage grasses or forage legumes.

Do not harvest or feed treated vegetation for 8 weeks after application. Following spot treatment in forage grasses or legumes, allow 30 days before harvesting or grazing domestic livestock.

This product enters the plant through the foliage and moves throughout the plant. Visual effects of control are a gradual wilting or yellowing of the plant which advances to complete browning of above-ground growth and deterioration of affected underground plant parts. Visible symptoms will usually develop within 2 to 4 days

after application but may not occur for 7 or more days. Extremely cool or cloudy weather following treatment may slow activity of this product and delay the visual effects of control.

## WEED RESISTANCE MANAGEMENT

GROUP	4	HERBICIDES
GROUP	9	HERBICIDES

This product is both a Group 4 and a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to Group 4 and/or Group 9 herbicides. Weed species with acquired resistance to Group 4 and/or Group 9 herbicides may eventually dominate the weed population if Group 4 and/or Group 9 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 4 and/or Group 9 herbicides.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 4 and/or Group 9 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank-mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Drexel Chemical Company representatives at (901) 774-4370.

## **APPLICATION PRECAUTIONS**

- AVOID CONTACT WITH FOLIAGE OF CROP OR OTHER DESIRABLE VEGETATION SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.
- Do not plant any crop other than wheat, barley, corn, oats, rye or sorghum (grain or forage) for 3 months after treatment.
- Applications of this product after planting and prior to crop emergence may cause crop injury if rainfall or environmental conditions delaying crop emergence are experienced.
- This product may be used for the control of emerged weeds prior to establishment of labeled crops. Large amounts of green or decaying vegetation left standing or incorporated into the seedbed may enhance the Page 4 of 21

development of disease in newly planted crops. This may result in poor emergence and/or stands, especially under cool and/or wet conditions.

• Spraying early to control young weeds before dense stands develop or light cultivation to assist weed decay will favor preparation of suitable seedbeds.

In reduced tillage and no-till systems, ensure good seed to soil contact and proper seeding depth.

- DO NOT APPLY IN THE VICINITY OF 2,4-D SENSITIVE CROPS SUCH AS COTTON, GRAPES, TOMATOES AND OTHER DESIRABLE VEGETATION.
- Apply only when there is no hazard from spray drift, since very small quantities of spray, which may not be visible, may severely injure susceptible crops or desirable vegetation.
- The likelihood of injury occurring to adjacent crops from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour, or when other conditions including lesser wind velocities will favor spray drift.

Movement of this product on soil particles during windstorms may cause damage to susceptible plants that are contacted. This hazard is reduced if rainfall occurs shortly after application.

- This product may be used for the control of emerged weeds prior to establishment of labeled crops. Large
  amounts of green or decaying vegetation left standing or incorporated into the seedbed may enhance the
  development of disease in newly planted crops. This may result in poor emergence and/or stands,
  especially under cool and/or wet conditions.
- When this label directs a tank mixture with a generic active ingredient such as diuron, atrazine, or dicamba, the user is responsible for ensuring that the mixture product's label allows the specific application.
- Buyer and all users are responsible for all loss or damage in connection with the use or handling of
  mixtures of this herbicide or other materials that are not expressly directed in this labeling. Mixing this
  product with herbicides or other materials not directed on this label may result in reduced performance.
  Use of this product in any manner not consistent with this label may result in injury to persons, animals or
  crops, or other unintended consequences.

This product is subject to all State and county regulations for 2,4-D amine.

#### USE RESTRICTIONS

• Do not cut feed or forage vegetation from treated areas for 8 weeks following application unless otherwise stated.

#### TIMING OF APPLICATION

Apply this product post-emergence to vigorously growing weeds when they have reached the size given in the "RATES AND WEEDS CONTROLLED" section of this label. Delay application until maximum emergence of the target weeds, but before weeds exceed the maximum size specified. For annual weeds, allow 1 day after treatment before tillage.

For field bindweed, allow at least 7 days after treatment before tillage.

Reduced control may result if treatments are made during poor growing conditions such as drought stress, disease or insect damage or if weeds have been mowed, grazed or cut. Heavy dust on foliage or a canopy covering targeted weeds may also reduce control.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application will wash this product off the foliage and a repeat treatment will be required.

## RATES AND WEEDS CONTROLLED

For best results, apply this product after most weed seeds have germinated but before seed head formation in grasses or flower bud formation in broadleaves.

When applied as directed, this product will provide control or suppression of the grass and broadleaf weed species listed below. Rates specified are for maximum weed height at treatment time.

PERENNIAL WEED SPECIES	RATE OF THIS PRODUCT PER ACRE (FI. Oz.)	LENGTH OF VINES/ TREATMENT HEIGHT (Inches)
Bindweed, field*	54	6 to 18
Convolvulus arvensis	(1.68 quarts)	
	(suppression only)	
	54 fl. ozs.	Post-bloom
Spurge, leafy	(1.68 quarts)	1 031 010011
Spurge, leary	Post bloom	
	(suppression only)	
*This product may also be used as a	1% solution on a spray-to-wet basis for annual we	eed control and Field hindweed suppression
	nd complete. Do not spray to the point of runoff.	
ANNUAL WEED	RATE PER ACRE	MAXIMUM HEIGHT
SPECIES	(Fl. Oz.)	(Inches)
	27	
Foxtail, green		12
Setaria viridis	<u>(0.84 quart)</u> 40	6
Barley Hordoum vulgoro	-	б
Hordeum vulgare	(1.25 quarts)	
Brome, downy*		
Bromus tectorum Cheat*		
Bromus secalinus		
Foxtail		
Setaria spp.		
Kochia*		
Kochia scoparia		
Lettuce, prickly*		
Lactuca serriola		
Oats, wild		
Avena fatua		
Puncturevine		
Tribulus terrestris	10	40
Cocklebur	40 (1.25 muente)	12
Xanthium strumarium	(1.25 quarts)	
Lambsquarters		
Chenopodium album		
Mustard, tansy		
Descurainia pinnata Mustard, tumble		
Sisymbrium altissimum		
Pigweed, redroot		
Amaranthus retroflexus		
Pigweed, smooth		
Amaranthus hybridus		
Purslane, common		
Portulaca oleracea		
Rye		
Secale cereale		
Stinkgrass		
Eragrostis cilianensis		
Thistle, Russian		
Salsola kali		
Wheat		
Triticum aestivum		

Barnyardgrass	54	6
Echinochloa crus-galli	(1.68 quarts)	
Buffalobur		
Solanum rostratum		
Goatgrass		
Aegilops cylindrica		
Mustard, blue		
Chorispora tenella		
Panicum, fall		
Panicum dichotomiflorum		
Witchgrass (perennial)		
Panicum capillare		
Oats, wild	54	12
Avena fatua	(1.68 quarts)	

\* For improved control in no-till systems or heavy infestations or overwintered stands, use 54 fluid ounces (1.68 quarts) per acre. For best results on light Kochia infestations, treat after the plant has passed through the woolly stage of growth and is 3 to 6 inches in height. When treating medium to heavy infestations or plants that are in the woolly stage (1 to 3 inches in height), add 2 fluid ounces of a 4 pound per gallon formulated dicamba end-use product to the specified rate of this product. Refer to the dicamba label for planting, cropping and other restrictions. Follow all precautions on the dicamba label.

Prepare the desired volume of spray by mixing the amount of this product in clean water as shown in the following table:

SPRAY SOLUTIONS			
Desired Volume Amount of This Product			
1 gallon	1.3 fluid ounces		
25 gallons	1 quart		
100 gallons	1 gallon		
2 tablespoons = 1 flu	uid ounce		

#### MIXING INSTRUCTIONS

#### This Product Alone

Fill the spray tank to about three-fourths of the desired volume with clean water. Add the specified amount of this product, then complete the filling process while maintaining agitation. Remove the hose from the mix tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, terminate by-pass and return lines at the tank bottom and/or use an agriculturally approved anti-foam or defoaming agent.

Additional surfactant is not necessary for this formulation.

**NOTE:** Reduced control may occur if water containing soil is used, such as water from ponds and unlined ditches.

#### Tank-Mixtures

Always predetermine the compatibility of labeled tank mixtures of this herbicide with water carrier by mixing small proportional quantities in advance. Refer to the label of the tank mixture partner (s) for any additional use instructions or precautions.

This product can be mixed in accordance with the more (most) restrictive label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Mix labeled tank mixtures of this product with water as follows: 1. Place a 20 to 35 mesh screen or wetting basket over filling port.

- 2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
- 3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
- 4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- 5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- 6. Continue filling the sprayer tank with water and add the required amount of this product near the end of the filling process.
- 7. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to re-suspend the mixture before spraying is resumed. Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle should be no finer than 100 mesh and in-line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Check label of all products used in tank mix for cleaning instructions. Clean as per the hardest material to remove.

## SPOT TREATMENT

#### Use Precautions:

Applications in growing crops must be made prior to heading of small grains and grain sorghum (milo) and silking of corn. For applications in forage grasses and legumes, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Do not treat the same area more than once in each growing season. Remove domestic livestock before application and wait 30 days after application before grazing livestock or harvesting.

#### ECOFARMING SYSTEMS

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow. Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System. Make no more than one pre-emergence treatment with 2,4-D per year.

#### Nitrogen Fertilizer Carrier Applications

#### This Product at 54 to 64 fluid ounces (1.68 to 2 quarts)

## Atrazine 4L at 0.75 to 1 pound active ingredient per acre

Apply the above tank mixture in a 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. Tank mixture may also be applied in controlled release nitrogen products such as Drexel X<sup>®</sup>-28-0-0 as a carrier at 10 to 20 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

#### Weeds Controlled

WEED SPECIES CONTROLLED	MAXIMUM HEIGHT (Inches)
Brome, downy	4
Bromus tectorum	
Cheat	
Bromus secalinus	

Foxtail, green	
Setaria viridis	
Foxtail, yellow	
Setaria lutescens	
Kochia*	
Kochia scoparia	
Lettuce, prickly	
Lactuca serriola	
Pigweed, redroot	
Amaranthus retroflexus	
Thistle, Russian	
Salsola kali	
Wheat, volunteer	
Triticum aestivum	
*For improved control of Kochia, add 4 fluid ounces (0.125 pound a.i.) tank mixture.	per acre of a 4 pound per gallon Dicamba product to the above

Risk of crop injury from 2,4-D or Dicamba can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products in these mixtures.

## AID TO TILLAGE

This product, used in conjunction with preplant and conventional fallow tillage practices will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 27 fluid ounces (0.84 quart) of this product in 3 to 10 gallons of water per acre to weeds that are actively growing. Treat when weeds are less than 6 inches in height. Application must be followed by conventional tillage practices before regrowth of the treated plant occurs. Allow at least 1 day after application before tillage.

## AMMONIUM SULFATE

The addition of 1 to 2% dry ammonium sulfate by weight (or liquid equivalent) or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product and its tank mixtures on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 113 cups of ammonium sulfate to 1 gallon of water and, agitate for 1 minute. If undissolved sediment is observed, pre-dissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. ENSURE THAT AMMONIUM SULFATE IS COMPLETELY DISSOLVED IN THE SPRAY TANK BEFORE ADDING HERBICIDES. THOROUGHLY RINSE THE SPRAY SYSTEM WITH CLEAN WATER AFTER USE TO REDUCE CORROSION. **NOTE:** Compatibility problems may occur at carrier volumes below 5 gallons per acre.

#### APPLICATION EQUIPMENT

Do not apply this product through any type of irrigation system.

This product may be applied using either ground, aerial spray or hand-held equipment. Use extreme care to avoid misting or drifting of herbicide solution onto foliage, green stems or fruit of desirable crops, trees or plants during both growing and dormant periods since even very small quantities of spray can cause severe plant injury.

**Ground Application:** Apply specified rates of this product in 3 to 10 gallons of water per acre as a broadcast spray. For optimum spray distribution and coverage, use flat fan or low volume flood nozzles. When using flood nozzles, space them no more than 40 inches apart and ensure double overlap of spray pattern. Refer to the manufacturer's recommendations for correct pressure and nozzle height above the target canopy. Avoid pressure and nozzles which produce fine droplets or mist. Do not apply greater than 4 feet above canopy.

Use appropriate marking devices to ensure uniform spray coverage and best results from this product.

**Hand-held and High Volume Equipment (use coarse sprays only**): Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use a 1% solution for annual weed control and Field bindweed suppression.

**Aerial Application**: Apply the specified rates of this product in 3 to 5 gallons of water per acre as a broadcast spray. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

#### 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) 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 ontarget deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for non-target species, non-target 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. 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.

## Additional requirements for ground boom application:

• Do not apply with a nozzle height greater than 4 feet above the crop canopy.

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.

## CORN

## For Use With Hooded Sprayers

This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 42 fluid ounces (1.3 quarts) of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Do not apply after tasseling.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 miles per hour.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sale responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the *"WEEDS CONTROLLED"* section.

## Use Restrictions:

- Corn, Sweet:
   The problem (optimized (DLU)) is 45 day
  - The preharvest interval (PHI) is 45 days.
- Corn, Field and Pop: The preharvest interval (PHI) is 7 days.
- Do not graze or feed corn forage or fodder following applications of this product through hooded, sprayers.
- Do not make more than one application per growing season.

## **GRAIN SORGHUM (MILO)**

This product may be used through hooded sprayers for weed control between the rows of grain sorghum (milo). Only hooded sprayers that completely enclose the spray pattern may be used.

When applying to milo that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

#### Application Requirements

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 54 fluid ounces (1.68 quarts) of this product per acre per application.
- Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed.
- Do not apply to milo during boot, flowering or early dough stages.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 miles per hour.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage.

For specific rates of application and instructions for control of various annual and perennial weeds, see the *"WEEDS CONTROLLED"* tables.

#### **Use Restrictions:**

- Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers.
- Do not make more than one application per growing season.
- The preharvest interval (PHI) is 30 days.

#### WHEAT

#### **Preharvest Applications**

This product provides weed control when applied prior to harvest of wheat. Make a single application of no more than 42 fluid ounces (1.3 quarts) after the hard-dough stage of grain (30 percent or less grain moisture) and at least 14 days prior to harvest of grain, hay or straw.

This product may be applied using either aerial or ground spray equipment. See "APPLICATION EQUIPMENT AND TECHNIQUES" section for instructions for ground and aerial applications.

#### Use Restrictions:

- Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment.
- Maximum of 4.67 quarts of this product (1.75 lbs. 2,4-D a.e.) per acre per crop cycle.
- The preharvest interval (PHI) is 14 days.

#### **Use Precautions:**

• Reduction in germination or vigor may occur if wheat grown for seed is treated with this product.

#### Postharvest Applications

This product will provide control of weeds following grain harvest. Weeds should be allowed to regrow after damage incurred during harvest operations and to recover from environmental stress before application of this product. Weeds should be treated prior to the heading stage of annual grasses and before broadleaf weeds exceed 24 inches in height. Ammonium sulfate will improve performance on annual weeds under stress conditions.

Weeds controlled with 40 fluid ounces (1.25 quarts) per acre include downy brome, green foxtail, stinkgrass and volunteer wheat.

Weeds controlled with 54 fluid ounces (1.68 quarts) per acre include field bindweed, kochia, lambsquarters, mustard, pigweed and Russian thistle.

Weeds controlled with 64 fluid ounces (2 quarts) per acre include barnyardgrass, sandbur, witchgrass, yellow foxtail and prickly lettuce.

#### FALLOW SYSTEMS

This product may be applied to idle land, postharvest to crops such as cotton or between crops. For best results, treat when weeds are young and actively growing. Apply 64 to 98 fluid ounces (2 to 3 quarts) of this product per acre. Use higher rates in dense or larger weeds stands or when weeds are under stress. Follow replant intervals below to prevent illegal residues in the following crop.

#### Labeled Crops

Within 29 days following an application of this product, plant only those crops names as use sites on this or other registered 2,4-D labels. Follow more specific limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days. Consider the degradation factors described below in weighing this risk.

#### Other Crops

All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Consider the degradation factors described below in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

#### **Degradation Factors**

When planting into treated areas, the risk of crop injury is less if lower rates of this product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of this product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application.

#### **Use Restrictions:**

- Do not cut forage for hay within 7 days of application.
- Do not apply more than 5.33 quarts (2 lbs. 2,4-D a.e.) per acre per application.
- Limited to 2 applications per year.
- Do not apply within 30 days of previous application.
- Plant only labeled crops within 29 days following application.

## FARMSTEADS AND FENCEROWS

This product may be used for general post-emergence control or suppression of emerged weeds. When applied as directed, this product will control downy brome, bulbous bluegrass, kochia, tumble mustard, tansy mustard and prickly lettuce, and provide suppression of crested wheatgrass, smooth bromegrass and field bindweed.

#### Use Restrictions:

- For shoreline weeds, allow no more than 2 foot overspray onto water.
- For airports, parking areas, railroads, rights-of-ways, roadsides, utility or industrial sites specified on this label: make only one application per year for the control of woody plants and no more than two applications, observing at least a 30-day interval for control on annual or perennial weeds. See "NON-CROPLAND" use instructions for additional use information, precautions, and restrictions.
- Annual and perennial weeds:
  - a) Limited to 2 applications per year.
  - b) Maximum of 5.33 quarts of this product (2.0 lbs. 2,4-D a.e.) per acre per application.
  - c) Minimum of 30 days between applications.
- Woody plants:
  - a) Limited to 1 application per year.
  - b) Maximum of 10.66 quarts of this product (4.0 lbs. 2,4-D a.e.) per acre per year.

#### **Use Precautions:**

- Use a 1% solution of this product for spray-to-wet, spot-spraying applications. Spray coverage should be uniform and complete.
- Treat when weeds are small, actively growing and free of dust. Use 108 fluid ounces (3.37 quarts) of this product in 5 to 10 gallons of water per acre for broadcast boom applications.

## DITCHBANKS

#### **Post-emergence**

- Limited to 2 applications per year.
- Maximum of 5.33 quarts of this product (2.0 lbs. 2,4-D a.e.) per acre per application.
- Minimum of 30 days between applications.
- Spot treatment is permitted.
- Do not use on small canals with a flow rate less that 10 cubic feet per second (CFS) where water will be used for drinking purposes. CFS may be estimated by using the formula below. The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance. Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times and use the average to calculate CFS.

Average Width (ft.) x Average Depth (ft.) x Average Velocity (ft. per sec.) = CFS

#### • For ditchbank weeds:

Do not allow boom spray to be directed onto water surface. Do not spray across stream to opposite bank.

#### • For Shoreline Weeds:

Allow no more than 2 foot overspray onto water.

## **NON-CROPLAND**

Use of this product on weeds growing in areas such as airports, apartment complexes\*, cemeteries, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, dry canals, fencerows\*, golf courses, highway rights-of-way, industrial sites specified on this label, landscape areas\*, lumberyards, manufacturing sites, municipal sites, natural areas, office complexes, parking areas\*, petroleum tank recreational areas\*, rights-of-way, roadsides, sod or turf seed farms, sports complexes, storage areas\*, substations, utility sites, warehouse areas, and wildlife management areas.

#### \*Intended To Be Applied By Certified/Professional Applicators

- Annual and perennial weeds:
  - a) Limited to 2 applications per year.
  - b) Maximum of 5.33 quarts of this product (2.0 lbs. 2,4-D a.e.) per acre per application.
  - c) Minimum of 30 days between applications.
- Woody plants:
  - a) Limited to 1 application per year.
  - b) Maximum of 10.66 quarts of this product (4.0 lbs. 2,4-D a.e.) per acre per year

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.

#### ORNAMENTAL TURF

(Golf courses, Cemeteries, Parks\*, Sports fields, Turfgrass\*, Lawns\*, and other Grass areas\*)

- Limited to 2 applications per year.
- Maximum of 4 quarts of this product (1.5 lbs. 2,4-D a.e.) per acre per application.
- The maximum seasonal rate is 8 quarts of this product (3.0 lbs. 2,4-D a.e.) per acre excluding spot treatments.

\*Intended To Be Applied By Certified/Professional Applicators

## TURF GROWN FOR SEED OR SOD

- Limited to 2 applications per year.
- Maximum of 5.33 quarts of this product (2.0 lbs. 2,4-D a.e.) per acre per application.
- Minimum 21 days between applications.

#### Bermudagrass

#### Use Restrictions

• When treating bermudagrass, make no more than 2 applications per year and observe at least a 21 day retreatment interval.

#### Dormant Bermudagrass

#### Fine Turf (Highly Maintained Turf):

When applied as directed, this product will provide control or suppression of vines and many winter annual grasses and broadleaf weeds for effective release of dormant bermudagrass in highly maintained turf. Treat only when turf is dormant and prior to spring greenup. For best results, treat winter annuals when plants are in an early growth stage but after most have germinated.

Apply 1 to 2 quarts of this product in 15 to 30 gallons of spray solution per acre. DO NOT apply tank mixtures of this product plus Outrider or Oust XP in highly maintained turfgrass areas.

See the "WEEDS CONTROLLED" section for the correct rate selection.

#### Coarse Turf (Low Maintenance Turf):

When applied as directed, this product will provide control or suppression of several grasses, broadleaf weeds, and vines for release of actively growing bermudagrass.

Apply 1 to 2 quarts of this product in 15 to 30 gallons of spray solution per acre. A tank mixture of this product plus sulfosulfuron (e.g., Outrider), sulfometuron methyl (e.g., Oust XP) or metsulfuron methyl (e.g., Escort XP) may be used to provide control or suppression of certain weeds. For this tank mixture, apply 1 to 2 quarts of this product plus 0.75 to 2.0 ounces of sulfosulfuron (e.g., Outrider) or 0.25 to 1 ounce of sulfometuron methyl (e.g., Escort XP) per acre.

See the "WEEDS CONTROLLED" section for the correct rate selection.

#### Actively Growing Bermudagrass

For spring and summer applications to bermudagrass, apply 1 to 2 quarts of this product in 15 to 30 gallons of spray solution per acre. A tank mixture of this product plus sulfosulfuron (e.g., Outrider), sulfometuron methyl (e.g., Oust XP) or metsulfuron methyl (e.g., Escort XP) may be used to provide control or suppression of certain weeds. For this tank mixture, apply 1 to 2 quarts of this product plus 0.75 to 2.0 ounces of sulfosulfuron (e.g., Outrider) or 0.25 to 1 ounce of sulfometuron methyl (e.g., Cust XP) or metsulfuron methyl (e.g., Escort XP) may be used to provide control or suppression of certain weeds. For this tank mixture, apply 1 to 2 quarts of this product plus 0.75 to 2.0 ounces of sulfosulfuron (e.g., Outrider) or 0.25 to 1 ounce of sulfometuron methyl (e.g., Oust XP) or metsulfuron methyl (e.g., Escort XP) per acre. Use only in areas where bermudagrass is a desirable groundcover and where some temporary discoloration can be tolerated.

See the "WEEDS CONTROLLED" section for the correct rate selection.

#### Bahiagrass

When treating bahiagrass, make no more than 2 applications per year and observe at least a 21 day retreatment interval.

#### Dormant Bahiagrass

When applied as directed, this product will provide control or suppression of vines and winter annual weeds for release of dormant bahiagrass. For best results on winter annuals, treat when plants are in an early growth stage but after most plants have germinated. To avoid delays in greenup and to minimize injury, treat when bahiagrass is dormant.

Apply 1 to 2 quarts of this product in 15 to 30 gallons of spray solution per acre. A tank mixture of this product plus sulfosulfuron (e.g., Outrider) or sulfometuron methyl (e.g., Oust XP) may be used to provide control or suppression of certain weeds. For this tank mixture, apply 1 to 2 quarts of this product plus 0.75 to 2.0 ounces of sulfosulfuron (e.g., Outrider) or 0.25 to 0.5 ounce of sulfometuron methyl (e.g., Oust XP) per acre.

See the "WEEDS CONTROLLED" section for the correct rate selection.

#### Actively Growing Bahiagrass

When applied as directed, this product will provide control or suppression of several grasses, broadleaf weeds, and vines for release of bahiagrass. Apply 0.75 to 1 quart of this product in 15 to 30 gallons of spray solution per acre. A tank mixture of this product plus sulfosulfuron (e.g., Outrider) or sulfometuron methyl (e.g., Oust XP) may be used to provide control or suppression of certain weeds. For this tank mixture, apply 0.75 to 1 quart of this product plus 0.75 to 2.0 ounces of sulfosulfuron (e.g., Outrider) or 0.25 to 0.5 ounce of sulfometuron methyl (e.g., Oust XP) per acre.

See the "WEEDS CONTROLLED" section for the correct rate selection.

#### Tall Fescue

When treating tall fescue, make no more than 2 applications per year and observe at least a 21 day retreatment interval.

#### Spring Applications:

When applied as directed, this product will provide control or suppression of vines and many winter annual weeds in tall fescue. For best results on winter annuals, treat when plants are in an early growth stage but

after most have germinated. To minimize tall fescue injury, apply this product when tall fescue is 4 to 6 inches tall but prior to seed head emergence.

Apply 1 to 1.5 quarts of this product in 15 to 30 gallons of spray solution per acre. A tank mixture of this product plus sulfometuron methyl (e.g., Oust XP) may be used to provide control of certain weeds. For this tank mixture, apply 1 quart of this product plus 0.25 ounce of sulfometuron methyl (e.g., Oust XP) per acre.

See the "WEEDS CONTROLLED" section for the correct rate selection.

#### Summer Applications:

When applied as directed, this product will provide control or suppression of several grasses, broad leaf weeds, and vines in tall fescue.

Apply 1 to 1.5 quarts of this product in 15 to 30 gallons of spray solution per acre. A tank mixture of this product plus sulfometuron methyl (e.g., Oust XP) may be used to provide control of certain weeds. For this tank mixture, apply 1 to 1.5 quarts of this product plus 0.25 to 0.5 ounce of sulfometuron methyl (e.g., Oust XP) per acre.

See the "WEEDS CONTROLLED" section for the correct selection.

## RANGELANDS

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

#### **Use Restrictions**

- Do not make more than one application per year.
- Do not cut grass or forage for hay.

#### Use Precautions

• Do not use ammonium sulfate when spraying rangeland grasses with this product.

#### Post-emergence Applications to Control Grass Weeds

When applied as directed, this product will control or suppress many annual grass weeds growing in perennial cool and warm season grass rangelands.

Apply 40 to 54 fluid ounces (1.25 to 1.68 quarts) of this product to control or suppress many weeds, including downy brome, cheat grass, cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants including seedheads turn color.

Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve, and encourages perennial grass conversion on weedy sites. Fall applications are possible where spring moisture is usually limited and Fall germination allows for good weed growth.

For medusahead control, apply 54 fluid ounces (1.68 quarts) when the medusahead has reached the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seed bank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

#### **Post-emergence Applications to Control Noxious Weeds**

When applied as directed, this product will provide control or suppression of noxious weeds growing in rangelands, perennial grasslands, roadsides, or similar industrial sites specified on this label. For best results on biennial or perennial noxious weeds, treat early season when target plants are in the rosette stage of growth, except as described below. See specific weed control directions listed below.

Apply 40 to 54 fluid ounces (1.25 to 1.68 quarts) of this product per acre at specific water volumes.

**Leafy Spurge**: Apply 40 to 54 fluid ounces (1.25 to 1.68 quarts) of this product alone, or in mixtures with 4 to 6 fluid ounces of dicamba (e.g., Banvel) herbicide, or 4 to 8 fluid ounces of picloram (e.g., Tordon) herbicide at early flower bud stage. This application works best in areas of greater than 20 inch average annual rainfall or when local conditions provide adequate soil moisture to promote vigorous growth.

**Perennial Pepperweed**: Apply 40 to 54 fluid ounces (1.25 to 1.68 quarts) of this product per acre alone or in combination with 0.5 ounce per acre of Escort from early bud stage through full flower.

**Yellowstar Thistle, Spotted Knapweed, Diffuse Knapweed,Musk Thistle, and Common Teasel:** Apply 40 to 54 fluid ounces (1.25 to 1.68 quarts) of this product alone or in combination with 0.25 to 0.5 pint clopyralid (e.g., Transline) herbicide, or 4 to 8 fluid ounces of picloram (e.g., Tordon) herbicide per acre at the rosette stage through early bolting.

**Note:** When applied over desirable perennial grasses, these mixtures may result in temporary grass leaf discoloration. Therefore, where desirable perennial grasses are present and slight and temporary discoloration cannot be tolerated, do not apply more than 40 fluid ounces (1.25 quarts) per acre.

## HOLLOW STEM INJECTION

This product may be applied through hand-held injection devices that deliver specified amounts of this product into targeted hollow-stem plants growing in any non-crop, rangeland, or industrial sites specified on this label. For control of the weeds listed below, inject 6 ml per stem of this product between the second and third internodes of the stem.

Japanese Knotweed	Bohemian Knotweed
Polygonum cuspidatum	Polygonum bohemicum

#### **Use Restrictions:**

- Based on the maximum annual use rate of 2,4-D for these non-crop sites, the combined total for all treatments must not exceed 10.8 quarts per acre of this product. At 6 ml per stem, 10.8 quarts should treat about 1700 stems per acre.
- Limited to one injection per year.

## WEEDS CONTROLLED

#### Note: C = Control; S = Suppression

ANNUAL WEED SPECIES	This Product (Qts./Ac.)			
	0.75	1.0	1.5	2.0
Barley, little Hordeum pusilium	S	S	С	С
Barnyardgrass (< 6 inches in height) Echinochloa crus-galli	S	S	S	С
Bedstraw, catchweed Galium aparine	S	S	С	С
Bluegrass, annual Poa annua	S	S	С	С
Brome, downy Bromus tectorum	S	S	С	С

Brome, Japanese	S	S	С	С
Bromus japonicus				
Cheat	S	S	С	С
Bromus secalinus				
Chervil	S	S	С	С
Chaerophyllum tainturieri				
Chickweed,common	S	S	С	С
Stellaria media				
Clover, crimson	S	S	S	С
Trifolium incamatum	_	_	-	
Clover, hop	S	S	С	С
Trifolium spp.	Ũ	Ũ	Ŭ	Ŭ
Crabgrass	S	S	С	С
Digitaria spp.	0	U	Ŭ	Ŭ
Foxtail	S	S	С	С
	3	3	C	C
Setaria spp.		0	<u>^</u>	0
Geranium, Carolina	S	С	С	С
Geranium carolinianum				-
Henbit	S	С	С	С
Lamium amplexicaule				
Horseweed/Marestail	S	С	С	С
Conyza canadensis				
Oats, wild	S	S	С	С
Avena fatua				
Panicum, fall (< 6 inches in height)	S	S	S	С
Panicum dichotomiflorum)				
Partridge pea	S	S	С	С
Cassia fasciculata				
Purple Deadnettle	S	С	С	С
Lamium purpureui				
Ragweed, common	S	S	С	С
Ambrosia artemisiifolia	_	_	-	
Sowthistle, annual (rosette stage only)	S	S	S	С
Sonchus oleraceus	Ū	Ū	Ū	Ũ
Speedwell, corn	S	S	С	С
Veronica arvensis	U U	Ŭ	Ũ	Ŭ
Spurge, spotted	S	S	С	С
Euphorbia maculata	5	5	U	C
Vervain, blue	S	S	С	С
	3	3	C	C
Verbena hastata	S	S	С	С
Vetch	5	5	C	C
Vicia spp.				
BIENNIAL WEED SPECIES				
Carrot, wild	S	S	S	С
Daucus carota				
Thistle, musk (rosette stage only)	S	S	S	С
Carduus nutans				
PERENNIAL WEED SPECIES				
Bahiagrass	S	S	S	S
Paspalum notatum				
Bindweed, field	S	S	S	S
Convolvulus arvensis	-	_	_	
Dock, curly	S	S	С	С
Rumex crispus	-	_	-	_
Fescue, tall	S	S	S	S
Festuca arundinacea				
Greenbriar	S	S	S	-
Smilax spp.	5			-
Honeysuckle	S	S	S	С
	3	3	3	
Lonicera spp. Horsenettle	S	S	S	
	5	3	5	-
Solanum carolinense				

Johnsongrass	S	S	S	С
Sorghum halepense				
Peppervine	S	S	С	С
Ampelopsis arborea				
Plaintain, buckhorn	S	S	С	С
Plantago lanceolata				
Raspberry	S	S	S	-
Rubus spp.				
Ryegrass	S	S	S	-
Lolium spp.				
Trumpetcreeper	S	S	S	-
Campsis radicans				
Vaseygrass	S	S	С	С
Paselum urvillei				

## SPRAYER CLEANUP

**CLEAN THE ENTIRE SPRAYER AFTER APPLICATION OF THIS PRODUCT**. Failure to clean the sprayer thoroughly may result in injury to desirable crops which are subsequently sprayed.

First, add clean water to the tank and thoroughly rinse the entire sprayer system. Secondly, fill the tank with water and ammonia. Add 1 quart of household ammonia per 25 gallons of water. Pump enough solution through the hoses, boom and nozzles to fill these parts completely. Then fill the tank, close and leave for 24 hours before draining and rinsing thoroughly with water.

Application or use of other agricultural chemicals with the equipment used for this product may result in injury to desirable vegetation.

Thoroughly wash aircraft especially landing gear after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEARS ARE MOST SUSCEPTIBLE**. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

## STORAGE AND DISPOSAL

Do not contaminate water, foodstuff, feed or seed by storage or disposal. Do not store near fertilizers, seeds, insecticides or fungicides.

Keep container closed to prevent spills and contamination.

**STORAGE: STORE ABOVE 40°F** to keep product in solution. If crystals form, place in warm room (72°F), allow the product to reach room temperature and roll or shake the container periodically until crystals have dissolved.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. 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.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

## CONTAINER HANDLING:

**Nonrefillable Container (rigid material; less than 5 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid material; 5 gallons up to < 250 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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#### Continuation)

**Refillable Container** (≥ 250 gallons & Bulk): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture or dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## WARRANTY - CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically directed, and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with the directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with the directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.



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