



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Matthew Granahan  
Regulatory Manager  
Nufarm Americas, Inc.  
11901 S. Austin Ave.  
Alsip, IL 60803

Subject: Notification per PRN 98-10 – Label Changes per CADPR Review  
Product Name: 2,4-D L.V. Ester  
EPA Registration Number: 228-139  
Application Date: 11/04/2016  
Decision Number: 523668

Dear Mr. Granahan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped “Notification” and will be placed in our records.

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 the Federal Insecticide Fungicide and Rodenticide Act 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) list 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 claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, please contact Terri Stowe at (703) 305-6117 or by email at [stowe.terri@epa.gov](mailto:stowe.terri@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Kathryn V. Montague for".

Kathryn V. Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

# NOTIFICATION

228-139

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

2/21/2017

GROUP 4 HERBICIDE

# 2,4-D L.V.4 ESTER

## A SELECTIVE WEED KILLER

FOR CONTROL OF MANY BROADLEAF WEEDS AND BRUSH CONTROL IN CEREAL GRAINS (WHEAT, BARLEY, MILLET, OATS, TRITICALE AND RYE), CORN, [RED] POTATOES, SORGHUM, SOYBEAN (PREPLANT), FALLOW CROPLAND AND FORESTS AND IN NON-CROP AREAS INCLUDING FENCE ROWS, LAWNS, PASTURES, RANGELAND AND RIGHTS-OF-WAY.

### ACTIVE INGREDIENT:

2,4-Dichlorophenoxyacetic acid, isooctyl (2-ethylhexyl) ester\* ..... 67.2%

OTHER INGREDIENTS: ..... 32.8%

TOTAL: ..... 100.0%

\*2,4-Dichlorophenoxyacetic acid equivalent 44.6% or 3.84 pounds per gallon. Isomer specific by AOAC method No. 978.05

### KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCION

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 [BACK PANEL] [BELOW] FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-139  
EPA EST. NO.

MANUFACTURED FOR  
NUFARM AMERICAS INC.  
11901 S. AUSTIN AVE.  
ALSIP, IL 60803



NET CONTENTS: GAL. ( Liters)  
[Designation as "NONREFILLABLE" or "REFILLABLE" for containers >5

000228-00139.20161104.Notification

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION / PRECAUCION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, eyes or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

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

- Long-sleeved shirt and long pants,
- Shoes and socks,
- Chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, or Viton, EPA Category F),
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate, and
- Protective eyewear

See engineering controls for additional 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:**

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 170.240(d) (4-6)], the handler PPE (personal protective equipment) 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)].

<b>USER SAFETY RECOMMENDATIONS</b>	
<b>Users Should:</b>	
<ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li> <li>• 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.</li> <li>• 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.</li> </ul>	

<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</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 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• 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>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN</b>	
May pose an aspiration pneumonia hazard. Contains petroleum distillates.	

**ENVIRONMENTAL HAZARDS**

This pesticide is 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. 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 product 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

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

Read the entire label before using this product.

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 (PPE) and restricted-entry intervals. 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 12 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 and shoes plus socks.

### 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 crops on farms, forests, nurseries, or greenhouses.

Do not enter or allow other to enter the treated area until sprays have dried.

## PRODUCT INFORMATION

This product contains the isooctyl (2-ethylhexyl) ester of 2,4-D. In cropland, this herbicide for controlling hard-to-kill weeds **such as** bindweed, thistles, smartweeds, wild garlic, curled dock, tansy ragwort and wild onions.

**INJURY TO CROPS FROM THIS HERBICIDE MAY OCCUR. IF YOU ARE NOT PREPARED TO ACCEPT SOME DEGREE OF CROP INJURY DO NOT USE THIS PRODUCT.**

Crop varieties vary in response to 2,4-D and some are easily injured. Apply this product only to varieties known to be tolerant to 2,4-D. If you are uncertain concerning tolerant varieties or local use situations that may affect crop tolerance to 2,4-D consult your seed company, state Agricultural Extension Service or qualified crop consultant for advice.

## WEED RESISTANCE

Any weed population may contain plants that are naturally resistant to 2,4-D, the active ingredient in this product, and to other herbicides with the same mode of action. ATTENTION: These resistant weed biotypes will not be controlled by this product. Consult advisors such as your local agricultural extension service for agronomic management practices to minimize the occurrence of 2,4-D resistance and considerations for supplemental control measures.

### Weed Management

To minimize the occurrence of 2,4-D resistant biotypes, observe the following general weed management practices:

- Scout application site before and after herbicide applications.
- Start with a clean application site, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- Utilize the specified label rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture directions that encourage application rates of this product below the label directions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Report any incidence of repeated non-performance of this product on a particular weed to your Nufarm representative, local retailer, or county extension agent.

### Management of 2,4-D-Resistant Biotypes

Since the occurrence of new 2,4-D weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control 2,4-D resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of confirmed 2,4-D resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

## PRODUCT RESTRICTIONS

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

Do not use in or near a greenhouse.

Do not use the same spray equipment for other purposes unless thoroughly cleaned. Crops contacted by sprays or spray drift may be killed or suffer significant stand loss with extensive quality and yield reduction.

## MIXING INSTRUCTIONS

Add one-half the required amount of water to the spray tank, then add this product with agitation, and finally, the balance of the water with continued agitation. This material forms an emulsion in water, not a solution. This tends to separate on standing. Provide agitation to prevent such separation and insure uniform spray mixtures.

## COMPATIBILITY

If this product is to be tank mixed with fertilizers or with other pesticides, test compatibility prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5 to 15 minutes after mixing. Read and follow the label of each tank-mix product used for precautionary statements, directions for use, geographic and other restrictions.

## COMBINATION WITH LIQUID NITROGEN FERTILIZER

Use 1/2 to 3/4 pint of this product per acre for weeding and feeding corn, cereal grains, grasses for seed production or grass pastures as directed on this label. Use the fertilizer at rates recommended by supplier or Extension Service Specialist. Fill the spray tank about half full with the liquid fertilizer, then add this product with vigorous agitation, and complete filling the tank with fertilizer. Apply immediately and continue agitation in the spray tank during application. Application during very cold weather (near freezing) is not advisable. Do not allow mixture to stand overnight. Incompatibility may be encountered with some fertilizer brands or under some environmental conditions. If in doubt, test a small sample in the dilution ratio planned for application.

**NOTE:** Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of leaf burn.

## APPLICATION INSTRUCTIONS

Apply with calibrated air or ground equipment using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in specific use directions.

For aerial application - Do not apply less than 2 gallon total spray volume per acre.

For ground applications - Do not apply less than 10 gallon total spray volume per acre.

The higher spray volumes will be needed under the following circumstances:

- For difficult to control vegetation,
- For large vegetation,
- Under conditions where control is more difficult, or
- When tank mixing with oils.

## Rate Ranges and Application Timing

The lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. Apply this product during warm weather when weeds are young and actively growing.

## Spot Treatments

To prevent misapplication, apply spot treatments with a calibrated boom or with hand sprayers using a fixed spray volume per 1000 square feet as indicated below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications of this product. Apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based upon the application rate for an area of 1000 square feet. Mix the amount of this product (fl oz or mL) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of product required for larger areas, multiply the table value (fl oz or mL) by the thousands of square feet to be treated.

## Rate Conversion Table for Spot Treatment:

Label Broadcast Rate (pint/acre)							
1/2	2/3	3/4	1	2	3	4	5
Equivalent Amount of 2,4-D L.V. 4 Ester per 1000 sq ft							
1/5 fl oz (5.5 mL)	1/4 fl oz (7.3 mL)	1/3 fl oz (8.3 mL)	3/8 fl oz (11 mL)	3/4 fl oz (22 mL)	1 fl oz (33 mL)	1-1/2 fl oz (44 mL)	3 fl oz (88mL)

<sup>†</sup> Conversion factors: 1 fl oz = 29.6 (30) mL

### Band Application

2,4-D L.V. 4 Ester may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Band rate acre treated acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Band volume acre treated acre}$$

### % 2,4-D L.V. 4 Ester in Spray Solution Table

% 2,4-D L.V. 4 Ester in Spray Solution	Label Broadcast Rate (pint/acre)								
		1/2	2/3	3/4	1	2	3	4	5
Gallons of Spray Solution (gallons)	2	3.13%	0.04%	4.69%	6.25%	12.50%	18.75%	25.00%	31.25%
	3	2.08%	2.78%	3.13%	4.17%	8.33%	12.50%	16.67%	20.83%
	4	1.56%	2.08%	2.34%	3.13%	6.25%	9.38%	12.50%	15.63%
	5	1.25%	1.67%	1.88%	2.50%	5.00%	7.50%	10.00%	12.50%
	6	1.04%	1.39%	1.56%	2.08%	4.17%	6.25%	8.33%	10.42%
	7	0.89%	1.19%	1.34%	1.79%	3.57%	5.36%	7.14%	8.93%
	8	0.78%	1.04%	1.17%	1.56%	3.13%	4.69%	6.25%	7.81%
	9	0.69%	0.93%	1.04%	1.39%	2.78%	4.17%	5.56%	6.94%
	10	0.63%	0.83%	0.94%	1.25%	2.50%	3.75%	5.00%	6.25%
	12-1/2	0.50%	0.67%	0.75%	1.00%	2.00%	3.00%	4.00%	5.00%
	15	0.42%	0.56%	0.63%	0.83%	1.67%	2.50%	3.33%	4.17%
	20	0.31%	0.42%	0.47%	0.63%	1.25%	1.88%	2.50%	3.13%
	25	0.25%	0.33%	0.38%	0.50%	1.00%	1.50%	2.00%	2.50%
	30	0.21%	0.28%	0.31%	0.42%	0.83%	1.25%	1.67%	2.08%
	50	0.13%	0.17%	0.19%	0.25%	0.50%	0.75%	1.00%	1.25%
100	0.06%	0.08%	0.09%	0.13%	0.25%	0.38%	0.50%	0.63%	

### 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, air blast, 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 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.

*Additional requirements for ground boom application:*

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

*Additional requirements for liquid products applied as a spray and containing an ester form of 2,4-D (e.g. 2,4-D butoxyethyl ester, 2,4-D ethylhexyl ester, 2,4-D isopropyl ester):*

2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures.

## WEEDS LIST

### ANNUAL AND BIENNIAL WEEDS

Annual yellow sweet clover	Hairy galinsoga	Prickly lettuce*	Vetches
Beggarticks*	Jimsonweed	Ragweed (common giant)	Wild carrot*
Bull thistle	Knotweed*	Rough fleabane	Wild lettuce
Coffeeweed	Mallow (Venice, dwarf, little)	Russian thistle*	Wild parsnip
Common broomweed*	Marestail	Salsify (western or common)	Wild radish and other
Common burdock	Marshelder	Smartweeds * (annual species)	broadleaf weeds listed
Common cocklebur	Morningglory (common, ivy, woolly)	Sowthistle (annual or spiny)	elsewhere on this label.
Common lambsquarters	Mustard (except blue mustard)	Sunflower	
Croton (Texas or woolly)	Pepperweed (except perennial)	Velvetleaf	
Evening primrose (common or cutleaf)	Pigweeds** ( <i>Amaranthus</i> spp.)	Vervains*	

### PERENNIAL WEEDS

Alfalfa*	Docks*	Jerusalem - artichoke	Western ironweed*
Bindweed* (hedge, field & European)	Dogbanes*	Many-flowered aster*	Wild garlic*
Blue lettuce	Goldenrod*	Nettles (including stinging)	Wild onion* and other
Canadian thistle*	Ground ivy*	Plantains	broadleaf weeds listed
Catnip	Hawkweed* (orange)	Sowthistle (perennial)	elsewhere on this label.
Chicory	Healall	Tansy ragwort*	
Dandelion	Hoary cress*	Vervains*	

\*These species may require repeat applications and/or use of the higher rates on this product label even under ideal conditions for application.

\*\*Control of pigweeds in the High Plains area of Texas and Oklahoma may not be satisfactory with this product.

## SPECIFIC USE DIRECTIONS

### CEREAL GRAINS (WHEAT, BARLEY, MILLET, TRITICALE, OATS and RYE)

CROP / APPLICATION TIMING / TYPE OF WEEDS	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>WHEAT, BARLEY, MILLET, OATS and RYE</b> (not underseeded with legumes) <b>Postemergence</b> Annual and biennial weeds Perennial broadleaf weeds	1/2 to 2 pints* 1 to 2 pints*	Apply after grain is fully tillered (usually about 4 to 8 inches high) but not forming joints in the stem.  <b>Do not spray grain in boot to dough stage.</b>
<b>Wild onion or garlic</b>	1-1/2 to 2 pints*	Apply 1-1/2 pints when grain is fully tillered and wild garlic or onion plants are small. Apply 2 pints after harvest in the crop stubble. For control of new fall growth of wild onion or garlic refer to FALLOWLAND use directions.
<b>Preharvest</b>	1 pint	Apply when grains are in the hard dough stage to suppress large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to induce succulent weed growth.

\*Use the lower rate if small annual and biennial weeds are the major problem. Use the higher rate if perennial weeds or annual and biennial weeds are present which are in the hard-to-kill categories as determined by local experience.

#### PRECAUTIONS FOR USE ON CEREAL GRAINS

The higher rates (greater than 1-1/3 pints per acre) increase the risk of grain injury and should be used only where the weed control problem justifies the risk of grain damage.

#### RESTRICTIONS FOR USE ON CEREAL GRAINS

- The preharvest interval (PHI) is 14 days.
- Do not apply to grain in the seedling stage
- Postemergence
  - Limited to one postemergence application per crop cycle.
  - Maximum of 2.6 pints (1.25 lbs 2,4-D ae) per acre per application.
- Preharvest
  - Limited to one postharvest application per crop cycle.
  - Maximum of 1 pint (0.5 lb 2,4-D ae) per acre per application.
- Limited to 3.64 pints (1.75 lbs 2,4-D ae) per acre per crop cycle.
- For aerial application apply this product in 2 or more gallons of water per acre, or sufficient spray solution for adequate coverage.
- For ground application, use a minimum of 10 gallons of water per acre for proper spray coverage, or sufficient spray solution for adequate coverage.
- Do not mix with oil for crop uses.
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment.
- Do not feed treated straw to livestock if a preharvest treatment as described above is applied.

### TANK MIXTURES FOR CEREAL GRAINS

#### 2,4-D L.V. 4 ESTER and MAESTRO® 2EC Tank Mixture on Wheat, Barley, Millet, Triticale Oats and Rye

GEOGRAPHIC LOCATION	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Cereal Areas</b> Except: Washington, Oregon, Idaho, Colorado, Wyoming and Montana	1/2 to 1 pint Plus 1 to 1-1/2 pints (1/4 – 3/8 lbs Bromoxynil Octanoate (BO) ae) MAESTRO 2EC	MAESTRO 2EC will control some annual weeds that are resistant to this product and may be tank mixed for broader spectrum weed control on cereal grains.
Washington, Oregon, Idaho, Colorado, Wyoming and Montana	1/2 to 1 pint Plus 1 to 1-1/2 pints (1/4 – 3/8 lbs BO ae) MAESTRO 2EC	<b>TO PREPARE THE SPRAY:</b> First mix this product in water then add the MAESTRO 2EC. Use the higher rates for larger weeds or where weed growth is slow due to dry or cold weather. Apply before weeds are 6 inches high. Use 10 to 20 gallons total spray volume per acre with ground equipment or use 2 to 10 gallons total spray volume with air application, or sufficient spray solution for adequate coverage. Use higher volume on larger weeds.



## CORN (FIELD, POPCORN AND SWEET)

APPLICATION TIMING / STAGE OF GROWTH	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Preplant (Burndown)</b>	1 to 2 pints	To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn. Apply 7 to 14 days before planting. Use high rate for control of less susceptible weeds or cover crops, weeds in advanced stages of development, or under less favorable growth conditions.
<b>Preemergence</b>	1 to 2 pints	Apply any time after planting, but before corn emerges to control broadleaf weed seedlings or existing cover crops. Use high rate for control of less susceptible weeds or cover crops, weeds in advanced stages of development, or under less favorable growth conditions.
<b>Postemergence</b> Annual and biennial weeds Crop up to 8 inches tall Crop 8 inches tall to tasseling (direct spray only) Perennial broadleaf weeds	1/2 to 1 pint 1 pint 1 pint	Avoid spraying just after corn leaves unfold, as injury may occur. Apply when weeds are small and corn is less than 8 inches tall (to top of crop canopy). If corn more than 8 inches tall must be sprayed, use drop nozzles and directed spray to keep spray off foliage. Treat perennial weeds in the bud to bloom stage. <b>Do not spray when corn is in tassel to hard dough stage.</b>
<b>Preharvest</b> (Field Corn and Popcorn Only)	Up to 3 pints	After the hard dough (denting) stage, to suppress weeds that interfere with harvest, such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower and velvetleaf, and to decrease production of weed seeds, spray with air or ground equipment. The high rate will be needed for tough weeds under stress. Do not apply preharvest to sweet corn.

### PRECAUTIONS FOR USE ON FIELD CORN, POPCORN AND SWEET CORN

- Preplant or preemergence applications to light sandy soils is not recommended.
- Corn hybrids vary in response to 2,4-D and some are easily injured. Contact the seed company or your Agricultural Experiment Station or Extensional Weed Specialist for this information.
- Corn treated with 2,4-D may exhibit stem brittleness for 8 to 10 days following application. During this period, the crop is more susceptible to stem breakage from wind or cultivation.

### RESTRICTIONS FOR USE ON FIELD CORN AND POPCORN

- The preharvest interval (PHI) is 7 days.
- Do not use treated crop as fodder for 7 days following application.
- Preplant or Preemergence
  - Limited to one preplant or preemergence application per crop cycle.
  - Maximum of 2 pints (1 lb 2,4-D ae) per acre per application.
- Postemergence
  - Limited to one postemergence application per crop cycle.
  - Maximum of 1 pint (0.5 lb 2,4-D ae) per acre per application.
- Preharvest
  - Limited to one postharvest application per crop cycle.
  - Maximum of 3.12 pints (1.5 lb 2,4-D ae) per acre per application.
- Limited to 6.25 pints (3 lb 2,4-D ae) per acre per crop cycle.

### RESTRICTIONS FOR USE ON SWEET CORN

- The preharvest interval (PHI) is 45 days.
- Do not use treated crop as fodder for 7 days following application.
- Minimum of 21 days between applications.
- Preplant or Preemergence
  - Limited to one preplant or preemergence application per crop cycle.
  - Maximum of 2 pints (1 lb 2,4-D ae) per acre per application.
- Postemergence
  - Limited to one postemergence application per crop cycle.
  - Maximum of 1 pint (0.5 lb 2,4-D ae) per acre per application.
- Limited to 3.12 pints (1.5 lb ae) per acre per crop cycle.

## FALLOWLAND AND CROP STUBBLE

Fallowland is idle land, postharvest to crops or between crops.

TYPE OF WEEDS	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>FALLOWLAND AND CROP STUBBLE</b> Annual broadleaf weeds	1-1/2 to 2 pints	Use the lower rate when weeds are small (2 to 3 inches tall) and growing actively. Use a higher in the rate range when weeds are larger and under less favorable growth conditions.
Biennial broadleaf weeds	2 to 4 pints	Spray while musk thistles or other biennial species are in the seedling to rosette stage, and before flower stalks are initiated. The lower rate can be used in spring during rosette stage. In fall or after flower stalks have developed, use the highest rate.
Perennial broadleaf weeds	2 to 4 pints	Spray weeds in bud to bloom stage, or in good vegetative growth. Do not disturb treated area for at least 2 weeks after treatment, or until weed tops are dead.
Wild garlic and onion in crop stubble	4 pints	Apply to new regrowth of wild onion or garlic which occurs in the fall following harvest of cereal grains, soybeans, corn or grain sorghum.

### PRECAUTION FOR USE ON FALLOWLAND

- For best weed control results, do not cultivate for at least 2 weeks after application or until top growth is dead.

### RESTRICTIONS AND LIMITATIONS FOR USE ON FALLOWLAND

- The preharvest interval (PHI) is 7 days.
- Minimum of 30 days between applications.
- Limited to 8.33 pints (4.0 lb 2,4-D ae) per acre per use season.
- Maximum of 4.16 pints (2.0 lb 2,4-D ae) per acre per application.
- Do not apply more than two times per year.

### Planting in Treated Areas

**Labeled Crops:** Within 29 days after an application of this product, plant only those crops listed on this or other registered 2,4-D labels. Follow more stringent limitations, if any, provided in directions for specific crops. Labeled crops may be at risk of crop injury or loss if planted soon after application, especially during the first 14 days. Degradation factors described below should be considered in weighing this risk.

**Other Crops:** All other crops may be planted 30 days or more after application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered 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 product were applied and conditions following application have included warm, moist soil conditions that favor rapid breakdown of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application. Consult your local agricultural extension service or information about susceptible crops and typical conditions in your area.

## [RED] POTATOES

### (Only for Use on [Red] Potatoes Intended for Fresh Market)

APPLICATION TIMING	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Postemergence</b>	2.33 fl. oz.	<b>[Red] Potatoes:</b> Properly timed applications of this product generally enhance red color, aid in storage retention of red color, improve skin appearance, increase tuber set, and improve tuber size uniformity (fewer jumbos). Crop response may vary depending on variety, stress factors, and local conditions. Varieties with naturally dark red color generally benefit less from treatment.

#### PRECAUTIONS FOR USE ON [RED] POTATOES

- Make first application when potatoes are in the pre-bud stage (about 7 to 10 inches high) and make a second application about 10 to 14 days later.
- Consult with Agricultural Extension Service and other qualified crop advisors for local recommendations.
- The specific spray volume selected should be sufficient for good coverage of plants.

#### RESTRICTIONS FOR USE ON [RED] POTATOES

- The preharvest interval (PHI) is 45 days.
- Minimum of 10 days between applications.
- Do not apply more than two times per year.
- Postemergence
  - Limited to two postemergence application per crop cycle.
  - Maximum of 2.33 fluid ounces (0.07 lb 2,4-D ae) per acre per application.
- Apply 2.33 fluid ounces of this product per acre in 2 to 25 gallons of water using ground or aerial equipment, or sufficient spray solution for adequate coverage.

## SORGHUM [Grain Sorghum (Milo) and Forage Sorghum]

APPLICATION TIMING / STAGE OF GROWTH	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Postemergence</b> Crop 6-8 inches tall Crop 8-15 inches tall (directed spray only)	1/2 – 1 pint  3/4 to 1 pint	Apply when sorghum is 6 to 15 inches tall. If sorghum is more than 8 inches tall (to top of crop canopy), use drop nozzles and apply as a directed spray to keep spray off foliage.  <b>Do not treat during the boot, flowering or early dough stages.</b>

#### PRECAUTIONS FOR USE ON SORGHUM

- Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply this product under these conditions, use no more than 2/3 pint per acre.
- Sorghum hybrids vary in tolerance to 2,4-D. Some are easily injured. Apply only to varieties known to be tolerant to 2,4-D. Consult the seed company or your agricultural experiment station or extension service weed specialist for this information.

#### RESTRICTIONS FOR USE ON SORGHUM

- The preharvest interval (PHI) is 30 days.
- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.
- Postemergence
  - Limited to one postemergence application per crop cycle.
  - Maximum of 1 pint (0.5 lb 2,4-D ae) per acre per application.
- **Do not treat during the boot, flowering or early dough stages.**

## SOYBEAN (PREPLANT ONLY)

APPLICATION TIMING	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Preplant (Burndown)</b>	3/4 to 1 pint	Apply not less than 7 days prior to planting soybeans, when weeds are small and actively growing. Use the higher rate on larger weeds and when perennials are present. Some weeds may require repeat treatment for adequate control (see WEED LIST and below). Maximum of 1 pint per preplant application. Limited to 2 preplant applications per crop cycle.
	1 to 2 pints	<p>Apply not less than 15 days prior to planting soybeans, when weeds are actively growing. Limited to 1 application per crop cycle. Apply no more than 2 pints of this product in one season prior to planting soybeans.</p> <p>In addition to those weeds found on the WEED LIST, this product will suppress or control the following broadleaf weeds frequently encountered in reduced tillage soybean production systems: bull nettle, smallflowered bittercress, Carolina geranium, smallflowered buttercup, common and rough cinquefoil, red clover*, horseweed or marestalk, mousetail, wild mustard, field pennycress, cutleaf evening primrose, common purslane, speedwell, and Virginia copperleaf.</p> <p>* These weeds are only partially controlled.</p> <p>After applying, plant soybean seed as deep as practical or at least 1-1/2 to 2 inches deep. Adjust the planter press wheel, if necessary, to ensure that planted seed is completely covered.</p> <p>If desired, this product may be applied pre-plant to soybeans in tank mixtures with other herbicides such as Credit Xtreme, Cheetah, Cheetah Max, Cloak, Cloak EX, and Panther and others that are registered for pre-plant soybean use.</p>

### PRECAUTIONS FOR USE IN SOYBEANS (PREPLANT)

Unacceptable injury to soybeans planted in fields previously treated with this product may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather and agronomic factors such as the amount of weed vegetation and previous crop residue present that may be in effect between the time of this product's application and the emergence of the soybean plant.

### RESTRICTIONS FOR USE IN SOYBEANS (PREPLANT)

- If choosing multiple preplant applications per crop cycle:
  - Limited to 2 preplant applications per crop cycle.
  - Maximum of 1 pint (0.5 lb 2,4-D ae) per acre per preplant application.
  - Apply no less than 7 days prior to planting soybeans.

OR

- If choosing a single preplant application per crop cycle:
  - Limited to 1 preplant application per crop cycle.
  - Maximum of 2 pints (1.0 lb 2,4-D ae) per acre per preplant application.
  - Apply no less than 15 days prior to planting soybeans.

### ADDITIONAL RESTRICTIONS FOR USE IN SOYBEANS (PREPLANT)

- Do not apply this product when weather conditions such as temperature, air inversions, or wind favor drift from treated areas to susceptible plants.
- Do not apply this herbicide prior to planting soybeans if you are not prepared to accept the results of soybean injury including possible loss of stand and yield.
- Do not replant fields treated with this herbicide in the same growing season with crops other than those labeled for 2,4-D preplant use.
- Do not mow or cultivate weeds prior to treating with this product as poor control may result.
- Do not cut for feed treated hay, forage, or fodder or graze treated soybeans to livestock.
- Only one application of this product may be made prior to planting soybeans per growing season.
- Do not cut for feed or graze treated cover crops to livestock.

## FORESTRY, RANGELAND, ESTABLISHED PASTURE, AND NON-CROPLAND AREAS

### FORESTRY

Forest site preparation, forest roadsides, brush control, established conifer release (including Christmas trees and reforestation areas)

TREATMENT SITE / METHOD OF APPLICATION	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Annual weeds</b>	2 to 4 pints	Apply when weeds are small and actively growing, before the bud stage. Apply when biennial and perennial species are in the seedling to rosette stage and before flower stalks appear. For difficult to control perennial broadleaf weeds and woody species, use up to 1 gallon of this product and 1 to 4 quarts of Tahoe® 3A herbicide per acre.
<b>Biennial and perennial broadleaf weeds and susceptible woody plants</b>	4 to 8 pints	For conifer release, make application in early spring before budbreak of conifers when weeds are small and actively growing.
<b>Spot treatment to control broadleaf weeds</b>	1.28 fl oz/ gal of spray solution (see instructions for Spot Treatment)	To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the specified broadcast rate and spray to thoroughly wet all foliage. Mix 1.28 fluid ounces per gallon of spray solution and apply through pump up sprayer or backpack sprayer. Addition of a non-ionic surfactant is recommended to improve coverage. See rate conversion table and instructions for Spot Treatment and use of hand-held sprayers under Application Directions.
<b>Conifer release:</b> species <b>such as:</b> Balsam fir, Black spruce, Jack pine, Ponderosa pine, Red pine, Red spruce, White pine, White spruce	3 to 6 pints	To control competing hardwood species, <b>such as</b> alder, aspen, birch, hazel, and willow, apply from mid to late summer when growth of conifer trees has hardened off and woody plants are still actively growing. Apply with ground or air equipment, using sufficient spray volume to ensure complete coverage. Because this treatment may cause occasional conifer injury, do not apply if such injury cannot be tolerated.
<b>Directed spray:</b> <b>Conifer plantations including pine</b>	8 pints per 100 gallons	Apply when brush or weeds are actively growing by directing the spray so as to avoid contact with conifer foliage and injurious amounts of spray. Apply in oil, oil-water, or water carrier in a spray volume of 10 to 100 gallons per acre, or sufficient spray solution for adequate coverage.
<b>Basal spray</b>	8 quarts Per 100 gallons or 2.5 fl oz/gal of water	Thoroughly wet the base and root collar of all stems until the spray begins to accumulate around the root collar at the ground line. Wetting stems with the mixture may also aid in control.
<b>Surface of cut stumps</b>		Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with the 2,4-D mixture including cut surface, bark and exposed roots.
<b>Frill and girdle</b>		Cut frills (overlapping, V-shaped notches cut downward through the bark in a continuous ring around the base of the tree) using an axe or other suitable tool. Treat freshly cut frills with as much of the 2,4-D mixture as they will hold.
<b>Tree injection</b>	1 to 2 mL per injection site	To control unwanted hardwood trees, <b>such as</b> elm, hickory, oak, and sweetgum, in forests and other non-crop areas, apply by injecting at a rate of 1 mL of undiluted 2,4-D L.V. 4 Ester per inch of trunk diameter at breast height (DBH) as measured approximately 4 1/2 foot above the ground. However, injection should occur as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be made throughout the year, but for best results apply between May 15 and October 15. Do not treat maples during the spring sap flow. For hard to control species, <b>such as</b> ash, maple, and dogwood, use 2 mL of undiluted 2,4-D L.V.4 Ester per injection site [or double the number of 1 ml injections]. No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

#### RESTRICTIONS FOR USE ON FORESTRY

- Do not allow sprays to contact conifer shoot growth (current year's new growth) or injury may occur.
- Do not apply to nursery seed beds.
- For conifer release, do not use on plantations where pine or larch are among the desired species.
- For broadcast applications, do not apply more than a total of 8.33 pints (4.0 lbs of 2,4-D ae) per acre per 12-month period.
- Limited to one broadcast application, one basal spray or cut surface application, or one injection application per year.
- For basal spray, cut surface stumps, and frill applications, do not apply more than 16.66 pints (8.0 lbs of 2,4-D ae) per 100 gallons of spray solution.
- For tree injections: Do not apply more than 2 ml of 4.0 pounds ae formulation per injection site. Limited to 1 injection application per year.

## FOREST MANAGEMENT

### CONIFER RELEASE

To control Alder, apply 3 to 4 pints of this product in 8 to 25 gallons water per acre as a foliage spray, or sufficient spray solution for adequate coverage. Treat when 3/4 of the brush foliage has attained full size leaves and before new conifer growth reaches 2 inches in length. This is usually between early May and mid-June. Adjust treatment date depending on stage of growth of conifers and brush species. This may cause leader deformation on exposed firs, but they should overcome this during the second year after spraying.

To control susceptible trees and brush species, **such as** Ceanothus spp., Chinquapin, Madrone, Manzanita, Oak and Tanoak and to release Douglas fir, Grand fir, Hemlock, or Sitka spruce, apply 3 quarts of product per acre before new growth on Douglas fir is 2 inches long. To control Manzanita and Ceanothus in Ponderosa pine, apply 3 quarts of this product before pine growth begins in spring.

To increase performance, add 2 to 4 quarts of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at label rate.

After Black spruce, Jack pine, Northern conifers, Red pine and White spruce cease growth and "harden off" (usually in mid-July), a spray of 1.5 to 3 quarts of product in 8 to 25 gallons of water per acre, or sufficient spray solution for adequate coverage. Product may be applied by air to control certain competing hardwood species, **such as** Alder, Aspen, Birch, and Willow. Since this treatment may cause occasional conifer injury, do not use if such injury cannot be tolerated. Consult your Regional or Extension Forester or State herbicide specialist for recommendations to fit local conditions.

To control Hazel brush in the Lake states, apply 2 quarts of this product in 6 to 25 gallons of water per acre when new shoot growth of Hazel is complete (usually mid-July).

**Tree Injections (Pine Release):** To control hardwoods, **such as** Elm, Hawthorn, Hickory, Maple, Oaks, Pecan, Sumac and Sweetgum in forest and other non-crop areas, or sufficient spray solution for adequate coverage. Apply this product undiluted in a concentrate tree injector calibrated to apply 1 ml per injection. Space injections 2 inches apart, edge to edge, completely around the tree and close to the base. The injector bit must penetrate the inner bark. On hard-to-kill species, **such as** Ash, Blue beech, Dogwood, Hickory, and Red maple, make injections 1 to 1.5 inches apart, edge to edge. Treatment may be made at any time of the year. For best results, injections should be made during growing season, May 15 to October 15. For dilute injections, mix 1 gallon of this product in 19 gallons of water. No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

**Dormant Application (other than pine):** For the control of susceptible deciduous brush species, **such as** Alder, Cascara, Cherry poplar and Serviceberry, apply up to 3 quarts of product per acre in sufficient diesel, fuel oil or kerosene for good coverage.

Application may be made by ground or air and should be made before conifer bud break.

**Pine Only:** Make application while pine buds are still dormant. Apply 2 quarts of product per acre in sufficient spray solution for adequate coverage by air or ground equipment. Do not use this application unless some pine injury is acceptable. Use of diesel, kerosene, or other oil, or addition of surfactants to spray mix may cause unacceptable pine injury.

**Christmas Tree Plantations:** For control of labeled broadleaf weeds in Douglas Fir Christmas trees, use 1 to 2 pints of this product per acre.

Apply over the top of Douglas Fir by ground or aerial application equipment only when the trees are dormant, prior to bud break. Do not spray over the top of pine or true firs (Abies spp.).

Directed Sprays may be made to weeds in Christmas tree plantations of all conifer species, but the spray must not contact tree foliage as injury may occur. Do not apply to weakened, diseased, or stressed seedlings since unacceptable injury can occur. This product may be mixed with Atrazine for Christmas tree application. (See Tank Mix section.)

**Herbaceous Weed Control:** To control over-wintering susceptible weeds, **such as** False dandelion, Klamath weed, Plantain, Tansy ragwort, apply 1 to 3 quarts of product in sufficient spray solution for adequate coverage. Make application at rates and timing indicated above if Pines are present. For control of Hazel brush and similar species in the Lake States area, apply 2 quarts of product per acre in 8 to

25 gallons of water when new shoot growth of Hazel is complete (usually mid-July).

### SITE PREPARATION

**Budbreak Spray:** To control Alder and other susceptible species before planting forest seedlings, apply 2 to 4 quarts of this product in 8 to 25 gallons fuel oil per acre after alder buds break, but before foliage is 1/4 full size. Application may be made by air or ground. If desired, water, diesel, or kerosene may be substituted for fuel oil as diluent.

**Foliage Spray:** To control Alder before planting forest tree seedlings, apply 2 quarts of this product plus 2 quarts fuel oil in 8 to 25 gallons of water per acre, or sufficient spray solution for adequate coverage after most Alder leaves are full size. To increase penetration, 2 to 4 quarts per acre of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at label rates may be added to the spray mixture.

The maximum rate per broadcast application is 8.33 pints (4 lbs 2,4-D ae) per acre, limited to one application per year.

Consult your regional or extension forester or state herbicide specialist for recommendations to fit local conditions.

## RANGELANDS AND ESTABLISHED GRASS PASTURES

Included Perennial Grasslands not in Agricultural Production, Such as Conservation Reserve Program Acres

TARGET WEEDS OR WOODY PLANT	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
Annual broadleaf weeds  Perennial and biennial broadleaf weeds	2 pints  2 to 4 pints	For best results, apply when weeds are small and actively growing, before the bud stage. Apply when musk thistles or other biennial species are in the seedling to rosette stage and before flower stalks appear. Refer to the Weeds Controlled section for a listing of susceptible weed species and weeds that may be only partially controlled and require repeat applications and/or use of higher specified rates, even under ideal conditions of application
Spot treatment to control broadleaf weeds	1.28 fl oz/ gal of spray solution (see instructions for Spot Treatment)	To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the specified broadcast rate and spray to thoroughly wet all foliage. Mix 1.28 fluid ounces per gallon of spray solution and apply through pump up sprayer or backpack sprayer. Addition of a non-ionic surfactant is recommended to improve coverage. See rate conversion table and instructions for Spot Treatment and use of hand-held sprayers under Application Directions.
Tree injection	1 to 2 mL per injection site	To control unwanted hardwood trees, <b>such as</b> elm, hickory, oak, and sweetgum, in forests and other non-crop areas, apply by injecting at a rate of 1 mL of undiluted 2,4-D L.V.4 Ester per inch of trunk diameter at breast height (DBH) as measured approximately 4 1/2 foot above the ground. However, injection should occur as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be made throughout the year, but for best results apply between May 15 and October 15. Do not treat maples during the spring sap flow. For hard to control species, <b>such as</b> ash, maple, and dogwood, use 2 mL of undiluted 2,4-D L.V.4 Ester per injection site <b>or</b> double the number of 1 ml injections]. No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.
Wild garlic and wild onion	4 pints	Make three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.
Broadleaf weed control in newly sprigged coastal bermudagrass	2 to 4 pints	Applications may be made either preemergence or postemergence. Follow Specific Use Directions for annual, biennial and perennial broadleaf weed control, above.
Sand shinnery oak, and Sand sagebrush	2 pints	<b>Sand shinnery oak:</b> Apply by aircraft between May 15 and June 15. <b>Sand sagebrush:</b> Apply by ground or aircraft when foliage is fully expanded and plants are actively growing.
Big sagebrush, rabbitbrush, chamise, manzanita, buckbrush, coastal sage, coyotebrush, and chaparral species.	4 pints	Apply by ground or aircraft when foliage is fully expanded and plants are actively growing. Re-treatment may be needed.
Southern wild rose Broadcast application  Spot treatment	<b>Up to</b> 4 pints  1.28 fl oz/ gal Of spray solution	<b>Broadcast:</b> Apply in a spray volume of 2 gallons or more per acre by aircraft or 10 gallons or more per acre by ground equipment, or sufficient spray solution for adequate coverage. <b>Spot treatment:</b> Apply when foliage is well developed. Thorough coverage is required. Mix 1.28 fl oz per gallon of spray solution and apply through pump up sprayer or backpack sprayer. Addition of a non-ionic surfactant is recommended to improve coverage. Two or more treatments may be required. Do not exceed 4 pints per acre per application.
Surface of cut stumps	2.6 fl oz/gal of water	Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with the 2,4-D mixture including cut surface, bark and exposed roots.
Frill and girdle		Cut frills (overlapping, V-shaped notches cut downward through the bark in a continuous ring around the base of the tree) using an axe or other suitable tool. Treat freshly cut frills with as much of the 2,4-D mixture as they will hold.

### PRECAUTIONS FOR USE IN RANGELAND AND PASTURE

- For program lands, such as 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 label must be followed.

**RESTRICTIONS FOR USE ON RANGELAND AND PASTURE**

- The preharvest interval (PHI) to forage hay is 7 days. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.
- Do not use on bentgrass, alfalfa, clover, or other legumes.
- Do not use on newly seeded areas until grass is well established.
- Do not use from early boot to milk stage where grass seed production is desired.
- Do not apply within 30 days of a previous application.
- For grazed areas, the maximum use rate is 4.16 pints of 2,4-D L.V.4 Ester (2.0 lbs of 2,4-D ae) per acre per application.
- Do not apply more than a total of 8.33 pints of 2,4-D L.V.4 Ester (4.0 lbs of 2,4-D ae) per acre per use season.
- Do not make more than two applications per season.
- For susceptible annual and biennial broadleaf weeds: Do not apply more than 2.1 pints (1.0 lb of 2,4-D ae) per acre per application.
- For moderately susceptible biennial, perennial broadleaf weeds and difficult to control weeds and woody plants: Do not apply more than 4.16 pints (2.0 lbs of 2,4-D ae) per acre per application.
- **Spot treatment:** Do not apply more than 4.16 pints (2.0 lbs of 2,4-D ae) per acre.

**NON-CROPLAND AREAS**

Fencerows, Hedgerows, Roadsides, Ditches, Rights-of-Way, Utility Power Lines, Railroad, Airports, Airfields, Vacant Lots, Highway and Industrial Sites

TREATMENT SITE / METHOD OF APPLICATION	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
Annual broadleaf weeds	2 to 4 pints	Apply when annual weeds are small and growing actively before the bud stage. Biennial and perennial weeds should be rosette to bud stage, but not flowering at the time of application. For difficult to control perennial broadleaf weeds and woody species, tank mix up to 1 gallon of 2,4-D L.V. 4 Ester plus 1 to 4 quarts of Tahoe 3A per acre. <b>For ground application:</b> High volume - apply a total of 100 to 400 gallons per acre; low volume - apply a total of 10 to 100 gallons per acre, or sufficient spray solution for adequate coverage. <b>For helicopter:</b> Apply a total of 2 to 30 gallons per acre spray volume, or sufficient spray solution for adequate coverage.
Perennial and Biennial broadleaf weeds	4 pints	
Susceptible woody plants on rights-of-way	4 to 8 pints	
Spot treatment to control broadleaf weeds	1.28 fl oz/ gal of spray solution (see instructions for Spot Treatment)	To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the specified broadcast rate and spray to thoroughly wet all foliage. Mix 1.28 fluid ounces per gallon of spray solution and apply through pump up sprayer or backpack sprayer. Addition of a non-ionic surfactant is recommended to improve coverage. See rate conversion table and instructions for Spot Treatment and use of hand-held sprayers under Application Directions.
Tree injection	1 to 2 mL per injection site	To control unwanted hardwood trees, <b>such as</b> elm, hickory, oak, and sweetgum, in forests and other non-crop areas, apply by injecting at a rate of 1 mL of undiluted 2,4-D L.V. 4 Ester per inch of trunk diameter at breast height (DBH) as measured approximately 4 1/2 foot above the ground. However, injection should occur as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be made throughout the year, but for best results apply between May 15 and October 15. Do not treat maples during the spring sap flow. For hard to control species, <b>such as</b> ash, maple, and dogwood, use 2 mL of undiluted 2,4-D L.V. 4 Ester per injection site <b>or</b> double the number of 1 ml injections. No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.
Southern wild rose Broadcast application  Spot treatment	4 pints plus 4 to 8 oz. Agricultural Surfactant  1.28 fl oz/ gal Of spray solution	<b>Broadcast:</b> Use up to 1 gallon of this product plus 4 to 8 ounces of an agricultural surfactant per 100 gallons of water and spray thoroughly as soon as foliage is well developed. Two or more treatments may be required <b>Spot treatment:</b> Apply when foliage is well developed. Thorough coverage is required. Mix 1.28 fl oz per gallon of spray solution and apply through pump up sprayer or backpack sprayer. Addition of a non-ionic surfactant is recommended to improve coverage. Two or more treatments may be required.



**PRECAUTIONS FOR USE IN NON-CROPLAND**

- Bentgrass, St. Augustine, clover, legumes and dichondra may be severely injured or killed by this treatment.
- Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial uses, or for commercial seed production, or for research purposes.

**RESTRICTIONS FOR USE ON NON-CROPLAND**

- Do not apply to newly seeded areas until grass is well established.
- Annual and perennial weeds: Do not apply more than 4.16 pints of 2,4-D L.V. 4 Ester (2.0 lbs of 2,4-D ae) per acre per application.  
Do not make more than two applications per season.  
Do not reapply to a treated area within 30 days of a previous application.
- Woody plants:  
Do not apply more than a total of 8.33 pints of pints of 2,4-D L.V. 4 Ester (4.0 lbs of 2,4-D ae) per acre per use season.  
Do not make more than one application per season.

**TANK MIXTURES IN NON-CROP AREAS**

**2,4-D L.V. 4 ESTER and Relegate / Tahoe® 4E or Tahoe 3A Tank Mixtures for Non-Crop Areas**

WEEDS IN CROP	AMOUNT OF 2,4-D L.V.4 ESTER PER ACRE	DIRECTIONS
<b>Broadleaf weed control</b>	2 to 4 pints 2,4-D L.V. 4 ESTER plus 2 to 6 pints Relegate / Tahoe 4E or 3 to 8 pints Tahoe 3A	For wider spectrum control of broadleaf weeds and woody plants: Apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre. Apply when broadleaf weeds are actively growing.
<b>Woody plant control</b> Broadcast foliar spray	1 gallon 2,4-D L.V. 4 ESTER plus 3 to 6 pints Relegate / Tahoe 4E or 4 to 8 pints Tahoe 3A	Apply as a broadcast spray in enough water to wet all parts of the brush foliage, stem and bark. This may require 20 to 100 gallons of water per acre. Apply when woody plants are actively growing.
<b>Woody plant control</b> High volume leaf-stem treatment with ground equipment	2 to 8 pints 2,4-D L.V. 4 ESTER plus 1-1/2 to 12 pints Relegate / Tahoe 4E or 2 to 16 pints Tahoe 3A	Mix 2 to 4 pints 2,4-D L.V.4 Ester plus 1-1/2 to 3 pints Relegate / Tahoe 4E or 2 to 4 pints Tahoe 3A in a mixture of water volume intended per acre. This may require up to 100 to 400 gallons of water per acre depending on size and density of woody plants. Thoroughly wet all leaves, stems and root collars of plants to be controlled.
<b>Woody plant control</b> Aerial application (Helicopter Only)	1 gallon 2,4-D L.V. 4 ESTER plus 6 to 8 pints Relegate / Tahoe 4E or 8 to 12 pints Tahoe 3A	Apply in a total mixture of water volume intended per acre. This may require a volume of 10 to 30 gallons per acre using drift control equipment such as the MICRO-FOIL® boom or an effective drift control agent. Use the higher rates and volumes when plants are dense or under drought conditions.

## TANK MIXTURES IN NON-CROP AREAS

### 2,4-D L.V.4 ESTER and Diablo® Tank Mixtures for Non-Crop Areas

WEEDS IN CROP	AMOUNT OF 2,4-D L.V.4 ESTER PER ACRE	DIRECTIONS
<b>Annual broadleaf control</b>	2 to 4 pints 2,4-D L.V. 4 ESTER plus 1/2 to 1-1/2 pints Diablo	For wider spectrum control of broadleaf weeds and woody plants: Apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre, or sufficient spray solution for adequate coverage. Apply when broadleaf weeds are actively growing.
<b>Perennial and biennial broadleaf weeds</b>	3 to 4 pints 2,4-D L.V. 4 ESTER plus 1/2 to 6 pints Diablo	Apply as a broadcast spray which may require 20 to 100 gallons total spray per acre, or sufficient spray solution for adequate coverage.. Apply when broadleaf weeds are actively growing but prior to flowering. Use the lower rates for biennials less than 3 inches rosette diameter. Use the higher rates for perennial weeds or for biennial weeds past the 3-inch rosette stage.
<b>Woody plant control</b> Broadcast, high volume, stem foliage or aerial application	1 gallon 2,4-D L.V. 4 ESTER plus 4 to 16 pints Diablo	Apply as a broadcast spray in a mixture of water volume intended per acre or as a high volume stem foliage spray in enough volume (20 to 100 gallons of water) to thoroughly wet leaves, stems and root collars or apply aerially in enough water to deliver total spray volume of 10 to 30 gallons of water per acre using drift control agent, or sufficient spray solution for adequate coverage.. This may require 100 to 400 gallons of water per acre for adequate coverage. Use the higher rates and volumes when plants are dense or under drought conditions.

#### SMALL AREA APPLICATIONS FOR NON-CROP USE

For control of broadleaf weeds in small non-crop areas with hand held or back-pack sprayers mix 4 fluid ounces of this product per gallon of water. Thoroughly wet all weed foliage. Maintain agitation of mixture to prevent separation.

This product will either kill, control or suppress the weeds listed in the label booklet for this product. Some of these species may require repeat spot applications even under ideal conditions.

## TURFGRASS GROWN FOR SEED OR SOD FARMS

TREATMENT SITE / METHOD OF APPLICATION	AMOUNT OF 2,4- D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>Grasses grown for seed</b> (postemergence use) Seedling grass (five-leaf stage or later)  Well-established grasses	3/4 to 1 pint	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Do not apply to newly seeded grasses until well established (five-leaf stage or later) and then use a maximum of 1 pint per acre. Cool season grasses are tolerant of higher rates. <b>Do not apply to grass in the early boot through milk stage if seed production is desired.</b> When grass is well established, higher rates of up to 4 pints per acre may be applied for control of hard to kill annual or perennial weeds.
	1 to 4 pints	
<b>Sod farms (postemergence)</b>	2 to 4 pints	Deep-rooted perennials, <b>such as</b> bindweed and Canada thistle may require repeat applications. Avoid mowing sod farms for 1 to 2 days before or after application. Delay irrigation until the day following application.

### PRECAUTIONS FOR USE IN TURFGRASS GROWN FOR SEED OR SOD

- **Reseeding:** Delay reseeding at least 30 days following application. Preferably, with spring application, reseed in the fall and with fall application, reseed in the spring.

### RESTRICTIONS FOR USE IN TURFGRASS GROWN FOR SEED OR SOD

- The preharvest interval (PHI) is 7 days.
- Do not apply more than a total of 8.33 pints of 2,4-D L.V.4 Ester (4.0 lbs of 2,4-D ae) per acre per use season, limited to two applications per season.
- The maximum rate per broadcast application is 4.16 pints 2,4-D L.V.4 Ester (2.0 lbs of 2,4-D ae) per acre.
- Do not use on creeping grasses such as bent except as a spot treatment.
- Do not use on injury-sensitive southern grasses, such as St. Augustinegrass.
- Do not use on dichondra or other herbaceous groundcovers. Legumes may be damaged or killed.
- Minimum of 21 days between applications.

## Ornamental Turfgrass (Excluding Grasses Grown for Seed or Sod Farms)

**Includes Lawns, Golf Courses (Aprons, Fairways, Roughs and Tees), Cemeteries, Parks, Sports Fields**

TREATMENT SITE / METHOD OF APPLICATION	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
<b>ornamental turfgrass</b> (postemergence use) Seedling grass (five-leaf stage or later)  Well-established grasses  Biennial and perennial broadleaf weeds	3/4 to 1 pint	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Deep-rooted perennial weeds, <b>such as</b> bindweed and Canada thistle may require repeat applications. Do not apply to newly seeded grasses until well established (five-leaf stage or later) and then use a maximum of 1 pint per acre. Cool season grasses are tolerant of higher rates.
	2 to 3 pints	
	3 pints	

### PRECAUTIONS FOR USE IN ORNAMENTAL TURFGRASS

- **Reseeding:** Delay reseeding at least 30 days following application. Preferably, with spring application, reseed in the fall and with fall application, reseed in the spring.

### RESTRICTIONS FOR USE IN ORNAMENTAL TURFGRASS

- Do not make more than two broadcast applications per year per treatment site (does not include spot treatments).
- Do not apply more than a total of 6.25 pints of 2,4-D L.V.4 Ester (3.0 lbs of 2,4-D ae) per acre per year.
- Do not use on creeping grasses such as bent except as a spot treatment.
- Do not use on injury-sensitive southern grasses, such as St. Augustinegrass.
- Do not use on dichondra or other herbaceous groundcovers. Legumes may be damaged or killed.
- Minimum of 21 days between applications.

## TANK MIXES

Read and follow the label of each tank mix product used for precautionary statements, rates, directions for use, precautions, geographic and other restrictions.

**Using this product and Maestro® 2EC Herbicide for weed control on cereal grains (barley, rye, wheat, triticale and oats):** Maestro 2EC Herbicide [2 pound per gallon ae bromoxynil octanoate (BO)] will control some annual weeds that are resistant to this product and may be tank mixed with this product for broader spectrum weed control on small grains. In cereal areas except Idaho, Oregon and Washington, use 0.50 to 1 pint (0.25 to 0.5 lb 2,4-D a.e.) of this product plus 1 to 1.5 pints (1 to 1.5 lbs BO ae) of Maestro 2EC per acre. In Idaho, Oregon and Washington: Use 0.50 to 1 pint of this product plus 1.5 to 2 pints (1.5 to 2 lbs BO ae) Maestro 2EC per acre. First mix this product in water, then add the Maestro 2EC. Use the higher rates for larger weeds or where weed growth is slow due to dry or cold weather. Apply before weeds are 6 inches high. Use 10 to 25 gallons total spray volume per acre with ground equipment or 2 to 10 gallons total spray volume with air application, or sufficient spray solution for adequate coverage. Use higher volume on larger weeds.

**Using this product with Banvel / Diablo and Ally or Express to provide more complete Kochia control:** Offers quick burndown. Provides residual activity with Ally to control later weed flushes making harvesting easier and reducing postharvest weed control needs. Controls broader weed spectrum while offering better control of Flixweed, Mustards, Russian thistle, and Wild buckwheat. Controls large weeds. Allows for early treatment. Apply 8 ounces (0.25 lb 2,4-D a.e.) of this product with the label specified rates of Ally plus either 2 to 3 ounces (1/16 to 3/32 lb Dicamba ae) of Diablo or Banvel per acre. The tank mix can be applied to Winter wheat and the four-leaf stage (tillering) to prior to joint. It can be applied to Spring wheat from the four-leaf stage through the five-leaf stage. Growers who want to rotate to a sensitive crop following wheat and are concerned about carryover from Ally, can substitute Express in the tank mix which allows crop rotation 60 days after application.

**Using this product and Sencor as knockdown herbicides for no till:** This product with Sencor DF alone or in combination with Dual, Lasso, Surflan or Prowl may be applied as an early preplant surface application for the control of certain broadleaf weeds and grasses in soybeans in minimum or no-till products. Application is recommended 30 days prior to planting. Apply at rate of 2 pints (1 lb 2,4-D a.e.) of this product per acre with labeled rates of Sencor. Where grass herbicide is used in tank mix, apply at the rates specified on that product's label.

**Using this product and Atrazine for weed control in Christmas tree and forest plantings:** A tank mix of these two products can be used to control weeds and thus aid in the establishment of young transplants of Austrian pine, Bishop pine, Blue spruce, Douglas fir, Grand fir, Jeffrey pine, Knobcone pine, Loblolly pine, Lodgepole pine, Monterey pine, Nobel fir, Ponderosa pine, Scotch pine, Sitka spruce, Slash pine, and White fir.

The mix should be applied between fall and early spring, preferably in February or March, while trees are still dormant, or soon after transplanting. Weeds should not be more than 1.5 inches high. It can be applied with either ground or air equipment. Helicopters have been highly effective for reforestation applications or steep terrain. Uniform application is the key to good weed control. Use 10 to 40 gallons of water per acre for ground applications; a minimum of 2 gallons of water when applying by air, or sufficient spray solution for adequate coverage. Be sure equipment is properly calibrated. All screens in the spray system -- nozzles, and in-line and suction strainers -- should be 15 mesh or coarser. Use a pump with capacity to maintain a nozzle pressure of 35 to 40 psi, and sufficient agitation to keep the mixture in suspension in the spray tank. If a nurse tank is used, keep the mixture agitated while awaiting transfer to the spray tank. Mix equivalent to 2 to 4 quarts of an approved 4 pounds per gallon Atrazine product or equivalent to 2.5 to 5 pounds of an approved 80% AI Atrazine product 1 to 3 quarts (1 to 3 lbs 2,4-D ae) of this product. The actual rate of Atrazine used should depend on soil type. Soils high in organic matter require higher rates than light to medium soils. Band application to Christmas Trees - Calculate the amount to be applied per acre. The band width in inches, divided by the rows spacing in inches, times the rate per acre for broadcast treatment will equal the amount needed per acre for band treatment. For example, when treating a 4-foot band over trees planted in rows 8 feet apart, apply 1.25 to 2.5 pounds ae of an approved 80% AI Atrazine product per acre. Please read Atrazine label(s) for additional instructions.

**Using this product and Panther in reduced-tillage or no-till systems:** This product may be applied in combination with Panther for the control of annual grasses and broadleaf weeds and the suppression of emerged perennial weeds when soybeans are directly seeded into a stale seedbed, cover crop or in previous crop residues. Special precautions: Poor weed control and/or crop injury may result if directions are not followed. Do not use a rib-type press wheel on your no-till planter or crop injury may result. Apply at a rate of 2 pints of this product (1 lb 2,4-D a.e.) per acre with labeled rates of Panther. Application is recommended 30 days prior to planting.

**Using this product and Poast as a burndown prior to planting soybeans:** For broad spectrum post-emergence weed control, a tank mix application of this product with Poast may be made for control of emerged broadleaf and grass weeds before planting soybeans. Apply at a rate of 1 pint of this product (0.5 lb 2,4-D a.e.) per acre with labeled rates of Poast.

**Using this product with Cloak and Cloak EX in preplant applications in no-till soybeans:** For broad spectrum post-emergence weed control, a tank mix application of this product with Cloak and Cloak EX herbicides may be made for the control of emerged broadleaf and grass weeds before planting soybeans. Apply at a rate of 1 pint (0.5 lb 2,4-D a.e.) of this product per acre up to 7 days prior to planting, or 2 pints (1 lb 2,4-D a.e.) per acre up to 30 days prior to planting, with labeled rates of Cloak and Cloak EX herbicides.

**Using this product and Relegate / Tahoe 4E or Tahoe 3A tank mixtures for Non-Crop Areas:** See **TANK MIXTURES IN NON-CROP AREAS 2,4-D L.V.4 ESTER and Relegate / Tahoe® 4E or Tahoe 3A Tank Mixtures for Non-Crop Areas** section of label.

**Using this product and Diablo Herbicide tank mixtures for Non-Crop Areas:** See **TANK MIXTURES IN NON-CROP AREAS 2,4-D L.V.4 ESTER and Diablo® Tank Mixtures for Non-Crop Areas** section of label.

**Using this product and Patriot<sup>®</sup>, Spyder<sup>®</sup> and Corsair<sup>®</sup>:** To improve control of some target species, this product may also be tank mixed with Patriot, Spyder, and Corsair herbicides for postemergent weed control. Tank mixes have shown improved control where resistant bio-types are present.

**NOTE:** All intended tank mix combinations should be used only in areas specified on the same broadleaf weed species found on both labels.

For application methods and other use specifications, use the most restricted limitations from labeling of both products.

This product will either kill, control or suppress the weeds listed in the label booklet for this product. Some of these species may require repeat spot applications even under ideal conditions.

**Maximum Seasonal Application Rate to non-crop and forestry sites is 4 pounds 2,4-D acid equivalent per acre per application site.**

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 vs. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web site: <http://www.epa.gov/espp>.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a dry, secured storage area. Keep container tightly closed when not in use.

**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.

### CONTAINER HANDLING:

[**Note to Reviewer:** The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] **NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "No refillable" or "Refillable" designation. Follow the container disposal [handling] instructions below that apply to your container type / size."

[**Note to Reviewer:** The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

[**Nonrefillable Containers 5 Gallons or Less:**] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) 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 1/4 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. 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. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[**Nonrefillable Containers Larger than 5 Gallons:**] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

### [OR ]

[**Refillable Containers Larger than 5 Gallons:**] 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 a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

### LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

**If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.**

(RV110416)

Diablo, Patriot, Spyder, Maestro, and Tahoe are registered trademarks of Nufarm Americas Inc.

(X) [is] [a] [are] [registered] trademark[s] of (Y).

All [other] trademarks are the property of their respective owners.

**Optional Marketing Claims:**

Nufarm Grow a better tomorrow.  
Grow a better tomorrow.



## SUPPLEMENTAL LABEL

# 2,4-D L.V.4 ESTER

## A SELECTIVE WEED KILLER

EPA Reg. No. 228-139  
Expires: May 31, 2018

### LABEL REVISIONS: [RED] POTATOES

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR THIS PRODUCT BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING. "Label" as used in this supplemental labeling refers to the label booklet for this product and this supplemental.

### DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN ANY MANNER INCONSISTENT WITH ITS LABELING.

This label must be in the possession of the user at the time of application.

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.

ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS IN THE PRODUCT LABEL BOOKLET MUST BE FOLLOWED, INCLUDING STATEMENTS PERTAINING TO THE WORKER PROTECTION STANDARDS, ON THE EPA REGISTERED LABEL FOR 2,4-D L.V.4 ESTER (EPA REG. NO. 228-139).

### [RED] POTATOES

(Only for Use on [Red] Potatoes Intended for Fresh Market)

APPLICATION TIMING	AMOUNT OF 2,4-D L.V. 4 ESTER PER ACRE	DIRECTIONS
Postemergence	2.33 fl. oz.	<b>[Red] Potatoes:</b> Properly timed applications of this product generally enhance red color, aid in storage retention of red color, improve skin appearance, increase tuber set, and improve tuber size uniformity (fewer jumbos). Crop response may vary depending on variety, stress factors, and local conditions. Varieties with naturally dark red color generally benefit less from treatment.

### PRECAUTIONS FOR USE ON [RED] POTATOES

- Make first application when potatoes are in the pre-bud stage (about 7 to 10 inches high) and make a second application about 10 to 14 days later.
- Consult with Agricultural Extension Service and other qualified crop advisors for local recommendations.
- The specific spray volume selected should be sufficient for good coverage of plants.

### RESTRICTIONS FOR USE ON [RED] POTATOES

- The preharvest interval (PHI) is 45 days.
- Minimum of 10 days between applications.
- Do not apply more than two times per year.
- Postemergence
  - Limited to two postemergence application per crop cycle.
  - Maximum of 2.33 fluid ounces (0.07 lb 2,4-D ae) per acre per application.
- Apply 2.33 fluid ounces of this product per acre in 2 to 25 gallons of water using ground or aerial equipment, or sufficient spray solution for adequate coverage.

For aerial application - Do not apply less than 2 gallon total spray volume per acre.

For ground applications - Do not apply less than 10 gallon total spray volume per acre.



The higher spray volumes will be needed under the following circumstances:

- For difficult to control vegetation,
- For large vegetation,
- Under conditions where control is more difficult, or
- When tank mixing with oils.

This supplemental label expires on March 31, 2018, and must not be used beyond that date.

#### **NOTICE**

Read the "WARRANTY DISCLAIMER" and "LIMITATION OF LIABILITY" in the label booklet for this product before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

**Manufactured For Nufarm Americas Inc.  
11901 S. Austin Ave. | Alsip, IL 60803**

[X] is a registered trademark of [Y].

## LABEL HISTORY

FILE NAME	REVISION MARK	COMMENTS
2,4-D LV4 ESTER (228-139) EPARED FIN RV022109 (Reg notes) ok for FLP	RV021009	EPA FPL
000228-00139.20150427.EPA Amendment	RV042715	EPA Amendment
000228-00139.20150619.EPA Amendment	RV061915	EPA Review
000228-00139.20150716.MASTER	RV071615	EPA SAL
000228-00139.20161104.Notification	RV110416	EPA Notification - CADPR