

# 2,4-D DIMETHYLAMINE | GROUP 4 HERBICIDE

# AMINE 4 2,4-D WEED KILLER

For Selective Broadleaf Weed Control in Certain Crops, Turf and Non-Crop Areas.

# ACTIVE INGREDIENT:

*Dimethylamine salt of 2,4-Dichloro-phenoxyacetic acid		46.5%
OTHER INGREDIENTS:		53.5%
	OTAL	100.0%

\*Equivalent to 38.6% 2,4-D acid or 3.74 pounds per gallon. \*Isomer specific by AOAC Method No. 6.275-6.279 (13th Ed.)

# 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 this label, find someone to explain it to you in detail.)

For Additional Precautionary Statements, Directions for Use, Storage and Disposal and Other Use Information, See Inside This Label Booklet.

	FIRST AID		
lf in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.     Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.     Call a poison control center or doctor for treatment advice.		
lf swallowed:	<ul> <li>f swallowed:</li> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have a person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul>		
lf on skin or clothing:	Take off contaminated clothing.     Rinse skin immediately with plenty of water for 15-20 minutes.     Call a poison control center or dictor for treatment advice.		
lf inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
	IGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565. iner or label with you when calling a poison control center or doctor, or going for treatment.		

Note to Physician: If in eyes, specialized ophthalmologic attention may be necessary. If swallowed, probable mucosal damage may contraindicate gastric lavage. There is no specific antidote; treat symptomatically.

# EPA REG. NO. 34704-120

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FORMULATED FOR LOVELAND PRODUCTS, INC.® P.O. BOX 1286 GREELEY, COLORADO 80632-1286

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CIDOT AID

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# CROP SPECIFIC INSTRUCTIONS .....

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	APPLE AND PEAR ORCHARDS
	STONE FRUIT AND NUT ORCHARDS (Crop Groups 12 and 14 and pistachios)5
	ASPARAGUS
	SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME
	CORN (field, pop and sweet)
	HOPS
	RICE
	WILD RICE (MINNESOTA ONLY)
	SORGHUM (MILO)
	SUGARCANE (except Hawaii)
	SUGARCANE (Hawaii only)
	SOYBEANS (Preplant only)
	STRAWBERRIES
	FALLOWLAND AND CROP STUBBLE
	FORESTRY (FOREST SITE PREPARATION, FOREST ROADSIDES, BRUSH
	CONTROL, ESTABLISHED CONIFER RELEASE, CHRISMAS TREES, BEFORESTATION AREAS)
	REFORESTATION AREAS)
	CDASS PASTURES, RAIVGELAIVD, AIVD CUIVSERVATIUM RESERVE PROGRAM
	GRASS SEED CROPS AND SOD FARMS
	NON-CROPLAND (FENCEROWS, HEDGEROWS, ROADSIDES, DRAINAGE DITCHES,
	ROADSIDES ADJACENT TO ORCHARDS, RIGHTS-OF-WAYS, UTILITY POWER
	LINES, RAILROADS, AND OTHER NON-CROP AREAS)
	LINES, HAILHOADS, AND OTHEN NON-CHOILANEAS)
Δ	OUATIC WEED CONTROL 11
	QUATIC WEED CONTROL
	FLOATING AND EMERGENT WEEDS
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	TREATED WATER USE INSTRUCTIONS

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# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- · Long-sleeved shirt and long pants,
- · Shoes and socks,
- · Protective eyewear,

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- Chemical resistant gloves made of barrier laminate, nitrile rubber, neoprene rubber, or viton, > 14 mils, when applying, applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate,
- Chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

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.

See engineering controls for additional requirements.

Engineering controls statements: Enclosed Cockpits: Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CRR 170.240(1)(6)]. When handlers use enclosed cabs or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(5-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

# USER SAFETY RECOMMENDATIONS

#### Users should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothino.

# ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates.

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

Aquatic Weed Control: Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. When treating continuous, dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply the product in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Waters having limited and less dense weed infestations may not require partial treatments.

#### Groundwater Contamination:

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination. Do not use the same spray equipment for other purposes unless thoroughly cleaned. Do not use in or near a greenhouse. Do not contaminate water used for irrigation or domestic purposes (except as specified on this label) especially in areas where susceptible plants are grown. Do not treat irrigation ditches in areas where water will be used to overhead (sprinkler) irrigate susceptible crops.

Large amounts of 2,4-D in the soil may temporarily inhibit seed germination. Do not use in any manner other than specified on the label to avoid possible crop injury or residues at harvest.

# DIRECTIONS FOR USE

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

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 (PCPE) 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 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. **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,
- 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 product apricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

NOTE: For application to turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes, follow AGRICULTURAL USE REQUIREMENTS on this label.

# **PRODUCT RESTRICTIONS**

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

# PRODUCT PRECAUTIONS

Crops contacted by sprays or spray drift of this product may be killed or suffer significant stand loss with extensive quality and yield reduction.

#### SPOT TREATMENTS FOR ALL USE SITES

Spot treatment is defined as a treatment area no greater than 1,000 square feet per acre.

#### Restrictions

- · Spot treatments are limited to 2 (two) applications per year.
- Apply a maximum rate of 4.28 pints (2.0 pounds acid equivalent) of this product per acre per application (equivalent to 1.54 fluid ounces (0.045 pound acid equivalent) of this product per 1,000 square feet per application).
- Wait a minimum of 30 days between applications.
- · Broadcast application is prohibited at this use rate.
- · Aerial application is prohibited for spot treatments.

To control broadleaf weeds in small areas with hand sprayer, use 0.25 pint of this product in 3 gallons of water and spray to thoroughly wet all foliage.

#### SMALL QUANTITY DILUTION TABLE

To spray small areas use the following dilution table.

If Rate on Label (pt/acre) shows:	Amount of product for each 1-3 Gal of water (for 1,000 sq ft)
0.5 pt	0.18 fl oz (1.1 tsp)/1,000 sq ft
0.67 pt	0.25 fl oz (1.5 tsp)/1,000 sq ft
0.75 pt	0.28 fl oz (1.7 tsp)/1,000 sq ft
1 pt	0.37 fl oz (2.2 tsp)/1,000 sq ft
2 pt (1 qt)	0.73 fl oz (1.5 tbsp)/1,000 sq ft
3 pt (1.5 qt)	1.1 fl oz (2.2 tbsp)/1,000 sq ft
4 pt (2 qt)	1.4 fl oz (2.8 tbsp)/1,000 sq ft
8 pt (4 qt)	3 fl oz (6 tbsp)/1,000 sq ft

#### SPRAY PREPARATIONS

Mix this product only with water to obtain adequate coverage, unless otherwise directed on this label.

- Add about half of the water to the mixing tank.
- · Begin tank agitation
- Add product.
- Add remaining water, continuing to agitate.

Note: Adding oil, wetting agent, or other surfactant to the spray may increase effectiveness on weeds, but also may reduce selectivity to crops, resulting in crop damage. When an adjuvant is to be used with this product, Loveland Products, Inc. recommends using LI 700<sup>®</sup>. For drift control and defoaming, the use of **Compadre®** at 0.125% v/v is recommended.

#### SPRAY DRIFT MANAGEMENT

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

#### Droplet Size

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASABE 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 (ASABE 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 broadlear plants.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-0 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. 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. For ground boom application: Do not apply with a nozzle height greater than 4 feet above the crop canopy.

# ENDANGERED SPECIES

Use of this product in certain portions of California, Öregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in <u>Washington Toxics Coalition</u>, et al. v. EPA, CO132C, (W.D. WA). For further information, please refer to EPA Web Site: http://www.epa.gov/espp.

# APPLICATION PROCEDURES

Generally, 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 growing actively. Apply a minimum of 2 gallons of spray solution per acre by air or a minimum of 5 gallons of spray solution per acre by orgond unless directed otherwise.

# PLANTING IN TREATED AREAS

Labeled Crops: Crops listed as use sites on this or other registered 2.4-D labels may be planted within 29 days of application of this product. Follow more specific limitations (if listed) 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. Degradation factors described below should be considered 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. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury to tlast 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 degradation 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 for information about susceptible crops and typical soil conditions in your area.

# WEED RESISTANCE MANAGEMENT

The active ingredient in this product is 2,4-D, which is a synthetic auxin (Group 4) disrupting plant cell growth in newly forming stems and leaves. A given weed population may contain or develop resistance to an herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, corp advisor, or sales representative to find out it suspected resistant weeds have been found in your recion.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- · A spreading patch of non-controlled plants of a particular weed species; and
- · Surviving plants mixed with controlled individuals of the same species.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/ local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

- Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
- 2. Rotate crops.
- 3. Start the growing season with clean fields.
- 4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
- Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
- 6. Control any weeds that may have escaped the herbicide application.
- 7. Thoroughly clean field equipment between fields.
- 8. Scout before and after application.

Contact your local agronomic advisor for more specific information on integrated weed management for your area. Users should report lack of performance to registrant or their representative. For mixtures including this herbicide note that each listed weed may not be controlled by multiple mechanisms of action. Refer to crop specific directions (below) for maximum application rates and number of applications.

# WEED LIST

The degree of control is dependent upon the species, stage of growth and overall growing conditions. Best results are obtained when weeds are young and actively growing. This product may be applied to control the following listed weeds.

Puncturevine

Radish

Giant

Salsifv

Sicklepod

Smartweed\*

Sowthistle

Speedwell

Sunflower

Tanweed

Toadflax

Velvetleaf Venice Mallow

Vervains\*

Wild Carrot

Wild Garlic\*

Wild Onion\*

Wild Radish

Wild Rape

Wild Parsnips

Wild Sweet Potato

Vetch

Tumbleweed

Purslane Common

Rough Fleabane Russian Thistle'

Shepherd's Purse

Spanish Needles

Stinging Nettles

Strawberry, Wild

Thistle\*. Canada and Bull

Virginia Copperleaf

Tansymustard

Ragweed, Common and

Alfalfa\* Artichoke Aster Austrian Fieldcress Beggarticks\* Bindweed\* Bitter cress, Smallflowered Bittersweet Bitterweed Blue Lettuce Broomweed Bullnettle **Bull Thistle** Burdock Buttercup, Smallflowered Canada Thistle\* Carolina Geranium Catnip Chicory Cinquefoil. Common and Rouah Clover, Red\* Cockle Cocklebur Coffeeweed Croton Dandelion\* Docks\* Dogbane\* Evening Primrose. Common and Cutleaf Fleabane, Daisv Flixweed

Frenchweed Galinsona Goatsbeard Goldenrod\* Ground Ivv\* Hairy Galinsoga Heal-all Hoarv Cress\* Horsetail Horseweed or Marestail Ironweed\* Jerusalem Artichoke Jimsonweed Knotweed\* Lambsquarters Lettuce, prickly and wild Locoweed Mallow\* Manyflowered Aster Marsh Elder Morningglory Mousetai Musk Thistle Mustard\* Nettles\*\* Orange Hawkweed Parsnip Pennycress, Field Pennywort Peppergrass Pigweed\* Plantains Povertvweed Prickly Lettuce Primrose

Wormwood \*These species may require repeated applications or use the higher rate recommended on this label

\*Control of these species in areas which are locally resistant, may not be satisfactory with this product.

# CROP SPECIFIC INSTRUCTIONS

#### ORCHARD FLOORS (Pome Fruits, including Apples and Pears) Non-Bearing trees (well established, one year or older) and Bearing trees before and after bloom:

Apply using coarse sprays and low pressure in sufficient volume of water to obtain thorough wetting of weeds when weeds are young and actively growing (perennial weeds, pre-bud to early bud stage).

Application Timing	Pts of This Product/A
Postemergence, Annual and Biennial Weeds	1.0 to 3.0 (0.46 to1.4 lbs ae)
Postemergence, Perennial Weeds	Up to 4.0 (1.87 lbs ae)

#### Restrictions

- Preharvest interval (PHI) is 14 days.
- Do not cut orchard floor forage for hav within 7 days of application.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Do not make more than 2 applications per crop cycle.
- Minimum interval of 75 days between applications.

#### ORCHARD FLOORS (Stone Fruit and Nuts, Crop Groups 12 and 14 and Pistachios)

Apply using coarse sprays and low pressure in sufficient volume of water to obtain thorough wetting of weeds when weeds are young and actively growing (perennial weeds, pre-bud to early bud stage).

Application Timing	Pts of This Product/A
Post emergence, Annual and Biennial Weeds	1.0 to 3.0 (0.46 to1.4 lbs ae)
Postemergence, Perennial Weeds	Up to 4.0 (1.87 lbs ae)

#### Restrictions Stone Fruits:

- · Preharvest interval (PHI) is 40 days.
- Do not cut orchard floor forage or hav within 7 days of application.
- Postemergence: Do not make more than 2 applications per crop cycle.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- · Minimum interval of 75 days between applications.

#### Filberts:

- Preharvest interval (PHI) is 45 days.
- Do not make more than 4 applications per year.
- Use a maximum of 2.14 pints of this product (1.0 pound acid equivalent) per 100 gallons of spray solution per application.
- Minimum interval of 30 days between applications.

#### Pistachios and other Tree Nuts:

- · Preharvest interval (PHI) is 60 days.
- Do not cut orchard floor forage or hay within 7 days of application. ٠
- Postemergence: Do not apply more than 2 applications per year.
  Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Minimum interval of 30 days between applications.

#### Orchard Floor Precautions

- Apply only after irrigation and allow maximum time before the next irrigation.
- Do not apply around fruit trees with handgun.
- Use only flat, fan-typed nozzles and low pressure (20 to 30 psi).
- Use a fixed-boom application which can be calibrated and will deposit the spray uniformly. Apply precisely and uniformly to prevent damage to the trees and to obtain satisfactory weed control.
- Do not apply during windy periods or extremely high temperatures.
- Do not use on light, sandy soil.
- Application to bare ground may result in injury.
- Do not allow spray to drift or contact foliage, fruit, stems, trunk of trees, or exposed roots, as injury may result.
- Trees must be at least 1 year old and in vigorous condition before application is made
- Do not apply during bloom.

#### ASPARAGUS

Broadleaf weeds: Apply on actively growing weeds, usually in April or May. If spears are present, treat immediately after cutting.

Pts of This Product/A	Directions
3.0 to 4.0 (1.4 to 1.87 lbs ae).	Apply in about 60 gals of water per acre for ground application and 12 gal per acre for air application.

# Restrictions

#### Harvest:

- Preharvest interval (PHI) is 3 days.
- Do not make more than 2 applications during the harvest season
- Minimum interval of 30 days between applications.
- Spears contacted by the spray may be malformed and off-flavored. If malformed, spears must be cut immediately and discarded.

#### Post-harvest:

- Minimum interval of 30 days between applications.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.

#### Precautions

 Post-harvest spraying should be only by ground rig using drop nozzles to avoid spraying the fern.

# SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME

# (Barley, Oats, Rye, Triticale, Wheat)

Best results will be obtained when soil moisture is adequate for plant growth and weeds are growing well.

Spring postemergence: Spray after grain begins tillering and before the boot stage (usually 4 to 8 inches tall) and weeds are small.

Preharvest (dough stage): To control large weeds that will interfere with harvest or to suppress perennial weeds, preharvest treatment can be applied when the grain is in the dough stage.

	Pts of This Product/A	
Application Timing	Normal rates (usually safe to crops)	Higher rate for special situations <sup>1</sup> (more likely to injure crop)
<b>Spring postemergence:</b> Wheat, Triticale, Barley, Rye	0.66 to 1.33 (0.31 to 0.62 lbs ae)	2.0 to 2.7 pt (0.93 to 1.25 pounds ae)
Oats	0.5 to 1.0 (0.23 to 0.46 lbs ae)	1.0 to 2.0 pt (0.46 to 0.e 93 pounds ae)
<b>Preharvest (dough stage):</b> Wheat, Triticale, Barley, Rye, Oats	1.0 (0.46 lbs ae)	NA

<sup>1</sup>These higher rates may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However, do not use unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

#### Restrictions

- · Do not apply before the tiller stage nor from early boot through the milk stage
- Preharvest interval (PHI) is 14 days.
- Limit applications of this product to 3.7 pints (1.72 pounds acid equivalent) per acre per crop cycle
- Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment.
- Do not feed treated straw to livestock.

#### Postemergence:

- Do not make more than one postemergence application per crop cycle.
- Do not apply more than 2.67 pints of this product (1.25 pounds acid equivalent) per acre per application.

#### Preharvest:

- Do not make more than one preharvest application per crop cycle.
- Do not apply more than 1.07 pints of this product (0.5 pounds acid equivalent) per acre per application.

#### CORN (field, pop and sweet)

Preemergence: Apply to soil any time after planting but before corn emerges. Do not use on very light, sandy soil.

Postemergence: Apply to emerged corn. When corn is over 8 inches tall or the fifth leaf collar is visible, whichever occurs first, use drop nozzles to keep spray off corn foliace.

Preharvest (field and pop only. Do not apply preharvest to sweet corn.): Apply after the hard dough or denting stage. Apply by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf, and vines that interfere with harvesting.

Application Timing	Pints of This Product/A <sup>1,2</sup>
Preemergence:	2.0 (0.94 lbs ae)
Postemergence: Up to 8 inches tall	0.5 to 1.0 (0.23 to 0.46 lbs ae)
8 inches to tasseling (use only directed spray)	1.0 (0.46 lbs ae)
Preharvest (field and pop only. Do not apply preharvest to sweet corn.):	1.0 to 3.0 (0.46 to 1.4 lbs ae)

<sup>1</sup> Corn varieties vary in tolerance to 2,4-D; some are easily injured. Before spraying, get information on 2,4-D tolerance of specific varieties and spray only those known to be resistant to 2,4-D injury. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.

<sup>2</sup> The higher rates may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However, do not use unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

Instructions for postemergent use with liquid nitrogen solutions: For late season control of young smartweeds, cocklebur, annual morningglory and other annual broadleaf weeds less than 1 inch high. Field should be as clean as possible and corn 20 to 30 inches tall. Apply 1.0 pints (0.46 pounds acid equivalent) of this product with 80 to 120 pounds nitrogen per acre. The spray MUST be prepared by first adding required amount of liquid nitrogen solution to spray tank. Next, for each acre to be treated with one thanktul, dilute 1.0 pints of this product with 2 quarts of clean water. Start the tank agitator and **SLOWLY** add the diluted 2,4-D solution. Spray immediately, maintaining continuous agitation until spray tank is empty. Direct the spray to lower 3 to 4 inches of corn stalk. Use spray equipment designated to handle corrosive liquid nitrogen solutions. After spraying, remove any remaining solution and rinse spray rig thoroughly with water. Mix only one tank at a time. Do not spray during or immediately following cold weather.

#### Restrictions

- The preharvest interval (PHI) is 7 days.
- Do not apply more than 6.4 pints of this product (3.0 pounds acid equivalent) per acre per crop cycle.
- Do not forage or feed corn fodder for 7 days following application.

#### Preemergence:

- Do not make more than one preplant or preemergence application per crop cycle.
- Do not apply more than 2.14 pints of this product (1.0 pound acid equivalent) per acre per preemergence application.
- · Do not use on very light, sandy soil.

#### Postemergence:

- Do not make more than one postemergence application per crop cycle.
- Do not apply more than 1.07 pints of this product (0.5 pounds acid equivalent) per acre per application.

#### Preharvest (field and pop only):

- · Do not make more than one preharvest application per crop cycle.
- Do not apply more than 3.2 pints of this product (1.5 pounds acid equivalent) per acre per application.

# Precautions

#### Preemergence:

Do not use on very light, sandy soil.

#### Postemergence and Preharvest:

- Use drop nozzles to keep spray off corn foliage.
- Do not apply from 7 to 10 days before tasseling to dough stage.
- Injury to corn is most likely to occur if this product is applied post-emergence when corn is growing rapidly under high temperature and high soil moisture conditions. In such situations, use the low rate of 0.5 pint (0.23 pounds acid equivalent) per acre.
- After application, delay cultivation for 8 to 10 days to allow the corn to overcome any temporary brittleness.

#### Sweet Corn Restrictions:

- · The preharvest interval (PHI) is 45 days.
- · Do not apply preharvest to sweet corn
- · Do not use treated crop as fodder for 7 days following application.
- Minimum interval of 21 days between applications.
- Do not apply more than 3.2 pints (1.5 pounds acid equivalent) per acre per crop cycle.

#### HOPS

To control annual broadleaf weeds

#### Pints of This Product/A Directions

1.0 (0.46 lbs ae) Make directed applications to the row middles. Make up to 3 applications at 30-day intervals with the last application before harvest.

#### Restrictions

- The preharvest interval (PHI) is 28 days.
- · Do not make more than 3 applications per crop cycle.
- Do not apply more than 1.07 pints of this product (0.5 pounds acid equivalent) per acre per application.
- Do not apply more than 3.2 pints of this product (1.5 pounds acid equivalent) per acre per crop cycle.
- · Minimum interval of 30 days between applications.

#### Precautions

- Hop foliage, especially new growth, is susceptible to this product.
- Take care to avoid spray or drift outside target area.
- The use of shielded or hooded sprayers, coarse sprays and low pressure (30 psi or less) will minimize contact with foliage and plant injury.

#### RICE

Preplant: Apply 2 to 4 weeks prior to planting rice.

**Postemergence:** Apply in the late tillering stage of rice development, at the time of first joint development (first to second green ring), usually 6 to 9 weeks after emergence.

	Pints of This Product/A	
Application Timing	Normal rates (usually safe	Higher rate for special situations <sup>1</sup> (more likely to injure crop)
Preplant:	2.0 (0.94 lbs ae)	NA
Postemergence:	1.5 to 2.0 (0.70 to 0.94 lbs ae)	2.0 to 3.0 (0.94 to 1.40 pounds ae)

1 These higher rates may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However, do not use unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

#### Restrictions

- The preharvest interval (PHI) is 60 days.
- Do not apply more than 3.2 pt of this product (1.5 pounds acid equivalent) per acre per crop cycle.
- Not for use in California.

#### Postemergence:

- Do not make more than one postemergence application per crop cycle.
- Do not apply more than 3.2 pints of this product per acre (1.5 pounds acid equivalent per acre) per postemergence application.

#### Precautions

- Do not apply after panicle initiation, after rice internodes exceed 0.5 inch, at early seedling, early panicle, boot, flowering, or early heading growth stages.
- Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying, consult local Extension Service or university specialists for appropriate rates and timing of 2,4-D sprays.

#### WILD RICE (MINNESOTA ONLY)

Apply to rice in the 1 to 2 leaf early tillering stage. Do not spray after wild rice has reached the early boot stage. For best coverage, apply 4 to 10 gallons total spray solution per acre

Application Timing	Pts of This Product /A
Postemergence:	0.5 (0.23 lb ae)

#### Restrictions

· The preharvest interval (PHI) is 60 days.

#### Postemergence:

- · Do not make more than 1 application per crop cycle.
- Do not apply more than 0.5 pint of this product (0.23 pound acid equivalent) per acre per application.

#### SORGHUM (MILO)

	Pts of This Product /A	
Timing	Normal rates <sup>1</sup> (usually safe to crops)	Higher rate for special situations <sup>2</sup> (more likely to injure crop)
Postemergence 6 to 8 inches tall	0.66 to 1.0 (0.31 to 0.46 lbs ae)	
8 to 15 inches tall (use only directed spray)	1.0 (0.46 lbs ae)	1.5 to 2.0 (0.69 to 0.94 lbs ae)

<sup>1</sup> Sorghum varieties vary in tolerance to 2,4-D; some are easily injured. Before spraying, get information on 2,4-D tolerance of specific varieties and spray only those known to be resistant to 2,4-D injury. If plants are more than 8 inches tall, use directed spray and keep spray off sorghum foliage. <sup>2</sup> These higher rates may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However, do not use unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

#### Restrictions

- 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.
- Do not make more than 1 application per crop cycle.
- Do not apply more than 2.14 pints of this product (1.0 pounds acid equivalent) per acre per application.

#### Precautions

- Treat only after the sorghum is 6 inches high and preferably before it is 15 inches high.
- Do not treat during the boot, tasseling, or early dough stages.
- Reduce spray drift by keeping the boom and spray nozzles as low as possible.
- If crop is taller than 8 inches, use drop nozzles to keep the spray off the leaves.
- · 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 0.66 pint per acre.

#### SUGARCANE (except Hawaii)

Apply in 5 to 25 gallons of water per acre as a pre- or post-emergence spray in the spring after cane emerges and through lay-by. Consult local Agricultural Experiment Station or Extension Service Weed Specialist on specific use of this product.

Timing	Pts of This Product /A
Preemergence	2.0 to 4.0 (0.94 to 1.87 lbs ae)
Postemergence	

#### Restrictions

- · Do not harvest cane prior to crop maturity.
- Do not apply more than 8.58 pints of this product per acre (4 pounds acid equivalent) per acre per crop cycle.

#### Preemergence:

- Do not make more than one application per crop cycle.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.

#### Postemeraence:

- Do not make more than one application per crop cycle.
  Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.

#### SUGARCANE (Hawaii only)

Apply in 5 to 25 gallons of water per acre as a pre- or post-emergence spray in the spring after cane emerges and through lay-by. Consult local Agricultural Experiment Station or Extension Service Weed Specialist on specific use of this product.

Timing	Pints of This Product /A
Preemergence	1.0 to 3.0 (0.47 to 1.40 lbs ae)
Postemergence	

#### Restrictions

- · Do not harvest cane prior to crop maturity.
- · Do not apply more than 8.58 pints of this product (4 pounds acid equivalent) per acre per year.

#### Preemergence:

- Do not make more than one application per crop cycle.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.

#### Post emergence:

- Do not make more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Layby applications may be made, but crop damage may occur in some sugarcane cultivars.

#### Do not apply this product in a manner that allows spray to drift from the application target site and/or harm to humans, animals or other non-target sites.

For the islands of Maui and Kauai, the general wind restriction is raised to 20 mph. When applying in winds in excess of 15 mph, the following requirements are in effect:

#### Aerial Applications: Aerial applicators must:

- No application shall be made within a distance of 1000 feet of sensitive areas such as Nature Preserves, Wildlife Refuges, Parks, Lakes, Reservoirs, Rivers, Streams, Non-irrigation Canals, Natural Ponds, Estuaries, Wetlands, Intertidal Areas, Ecologically Significant Grasslands, homes, public or private buildings, or fields with crops other than sugarcane whenever these sensitive areas are downwind from the spray areas and subject to possible spray drift. In instances where these sensitive areas are upwind from the spray area, the minimum restricted distance shall be 300 feet.
- Apply only as a coarse or coarser spray (ASABE standard 572 or a volume mean diameter of 385 microns).
- Use a spray drift retardant and/or other measures known to control drift.

#### Ground Broadcast Applications: For ground applications, applicators must:

- Apply by ground boom with nozzle height no more than 2 feet above ground (pre-emergence) or crop canopy (post emergent broadcast) applications or, for directed sprays, no more than 1 foot above the ground, or 1.25 ft (15 inches) for better spray patterns without boom levelers on uneven terrain.
- Apply only as a coarse or coarser spray (ASABE standard 572) or a volume mean diameter of 385 microns.
- Use spray drift retardants and/or other measures known to control drift.

Recommended applications techniques to reduce off-site drift include, but are not limited to, the use of hooded or shielded sprayers or other means to reduce drift.

#### SOYBEANS (Preplant only) Crop residue management systems

This product may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. This product should only be applied preplant to soybeans in situations such as reduced tillage production systems, where emerged weeds are present. Apply only according to the application instructions given below. In general, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage at the time of treatment. The response of individual weeds species to this product is variable. Consult your local county or state Agricultural Extension Service or crop consultant for advice.

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

Pts of This Product /A	Directions
1.07 (0.5 lb ae)	Apply not less than 15 days prior to planting soybeans. Limited to 2 preplant applications per crop cycle. Maximum of 0.5 lb ae/acre per preplant application.
( )	Apply not less than 30 days prior to planting soybeans. Limited to 1 preplant application per crop cycle. Maximum of 1.0 lb ae/acre per preplant application.

#### Restrictions

- Do not apply more than 2.14 pints (1.0 pound acid equivalent) per acre per crop cvcle
- Make either two applications of up to 1.07 pint per acre each or one application of up to 2.14 pint per acre. Observe preplant interval in table above.
- Do not apply more than 1.0 pound acid equivalent (2.14 pints of this product) per ٠ acre per preplant application
- Do not use on sandy soils with less than 1% organic matter.
- Do not replant fields treated with this product in the same growing season with . crops other than those labeled for use with this product.
- 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 feed hay, forage or fodder.
- Restrict livestock from grazing treated fields.
- Restrict livestock feeding/grazing of treated cover crops.

#### Precautions

- Apply this product only as a preplant to sovbeans in situations such as reduced tillage production systems, where emerged weeds are present.
- Apply only according to the application instructions given above.
- Do not use any tillage operations between application of this product and planting of sovbeans.
- In fields previously treated with this product, plant soybean seed as deep as practical or at least 1 inch deep. Adjust the planter, if necessary, to ensure that planted seed is completely covered.

Important Notice: 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 (temperature and rainfall) from herbicide applica-. tion until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present at the time of application. Do not apply this product as described on this label unless you are prepared to accept soybean injury, including loss of stand and yield.

#### STRAWBERRIES

Broadleaf weeds in established strawberry plantings.

#### Pts of This Product /A Directions 2.0 to 3.0 (0.94 to 1.40 lbs ae) Apply in 25 to 50 gallons of water per acre. Apply

· · · · · ·	in early spring when strawberries are dormant or immediately after the last picking.

#### Restrictions

- · Do not apply in California or Florida
- ٠ Dormant or after last picking:
- Do not make more than 1 application per crop cycle. .
- Do not apply more than 3.2 pints of this product (1.5 pounds acid equivalent) per acre

#### Precautions

Do not apply unless possible injury to the crop is acceptable.

Follow recommendations of State Extension Weed or Horticultural Specialist in your area.

# FALLOWLAND AND CROP STUBBLE

Apply to actively growing weeds.

Weeds	Pts of This Product /A
Annual Broadleaf weeds	1.0 to 4.0 (0.46 to 1.87 lbs ae)
Established perennial weeds	Up to 4.0 (1.87 lbs ae)

#### Restrictions

- Do not graze dairy animals on treated areas within 7 days after application.
- Do not graze meat animals on treated areas within 3 days before slaughter.
- Do not cut treated grass for hay within 30 days after application.
- Plant only labeled crops within 29 days following application.
- · Do not make more than 2 applications per year.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Minimum interval of 30 days between applications.

#### FORESTRY (FOREST SITE PREPARATION, FOREST ROADSIDES, BRUSH CONTROL. ESTABLISHED CONIFER RELEASE. CHRISMAS TREES. REFORESTATION AREAS)

Site/Weeds	Pints of This Product /A	Directions
Forest Site Preparation/ Alder, susceptible broadleaf weeds, and susceptible woody plants	4.0 to 8.0 (1.87 to 3.74 lbs ae) in 5 to 25 gal of water.	Before planting forest seedlings: To provide uniform uptake of product, apply when sufficient foliage exists.
Conifer Release/ Alder, susceptible broadleat weeds, and susceptible woody plants	2.0 to 6.0 (0.94 to 2.8 Ibs ae) in a minimum of 5 gal of spray mixture.	In conifer plantations: For best results, apply in the spring before budbreak or after budset in late summer to help reduce risk of conifer injury. Consult your local university or Agricultural Extension Service Specialist for more specific information on rates and timing of applications.
Basal spray	17 (8.0 lbs ae)/100 gal or 2.7 fl oz/gal of water	Thoroughly wet the base and root collar of all stems until the spray begins to accumu- late around the root collar at ground line. Also wetting stems with 2,4-D mixture may aid control.
Cut surface - Stumps		Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with 2,4-D mixture. Also treat exposed roots and bark.
Frill		Make frills with an axe or other tool that can out overlapping v-shaped notches through the bark in a continuous ring around the base of the tree. Treat freshly out frills with as much 2,4-D mixture as they will hold.
Tree Injection Unwanted hardwood trees such as alder, ash, aspen, birch, blackgum, cherry, oak, poplar spp., sweetgum, poplar, hickory, maple, pecan, elm, sumac, hawthorn, dogwood, blue beech.	1.0 to 2.0 mL of undiluted product per injection site	Make injections or cuts around the tree as near to the root collar as possible, using one injection or cut per inch of trunk diameter dbh( breast height). For resistant species such as hickory, dogwood, red maple, blue beech and ash, injections should overlap. For best results, injections should be made during the growing season, May 15 to October 15.

#### Restrictions

# Broadcast application:

- Do not make more than 1 broadcast application per year.
- Do not apply more than 8.56 pints of this product (4.0 pounds acid equivalent) per acre per broadcast application.

#### Injection:

- Do not make more than one injection application per year.
- No more than 4.0 pounds acid equivalent per acre.
- The injection bit must penetrate the inner bark.

#### Basal spray, Cut Surface - Stumps, and Frill:

- . Do not make more than one basal spray or cut surface application per vear.
- Do not apply more than 17 pints of this product (8.0 pounds acid equivalent) per 100 gallons of spray solution.

#### Precautions

 Certain conifer species are less tolerant to 2.4-D and injury will occur with application.

#### GRASS PASTURES, RANGELAND, AND CONSERVATION RESERVE PROGRAM

Postemergence: Apply when weeds are small and actively growing and prior to bud stage.

Southern wild rose: Spray thoroughly as soon as foliage is well developed.

Basal Spray, Cut Surface-Stumps, Frill, Tree Injection: See instructions in the Forestry section

Weeds	Pts of This Product /A
Moderately susceptible biennial and perennial broadleaf weeds	2.0 to 4.0 (0.94 to 1.87 lbs ae)
Difficult to control weeds and woody plants	Up to 4.0 (1.87 lbs ae)
Southern wild rose	1.0 gal (3.74 lbs ae) plus 4 to 8 fl oz of an agricultural surfactant per 100 gal of water

#### Restrictions

- · The preharvest interval (PHI) is 7 days (cut forage for hay)
- · 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.
- Minimum interval of 30 days between applications.
- Do not graze dairy cattle in treated areas for 7 days after application.
- . If grass is to be cut for hay. Agricultural Use Requirements for the Worker Protection Standard are applicable. Do not permit meat animals being finished for slaughter to forage treated fields
- within 3 days of slaughter.

#### Postemergence:

- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Do not make more than two applications per year.

#### Spot treatment:

- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre
- Do not apply more than 8.56 of this product (4.0 pounds acid equivalent) per acre per year.

#### Precautions

- Do not apply to newly seeded areas until grass is well established.
- . Do not apply to grass in the early boot through milk stage if grass seed production is desired
- Use lower rates on annuals or use higher rate on perennials or when weeds are taller.
- Bentgrass and legumes may be injured by this treatment.

#### GRASS SEED CROPS AND SOD FARMS

#### NOTE: For application to turf being grown for sale or other commercial use as sod. or for commercial seed production, or for research purposes, follow AGRICULTUR-AL USE REQUIREMENTS on this label.

Apply in spring or fall to control broadleaf weeds in grass being grown for seed. Apply when weeds are small and actively growing and prior to bud stage. Spray seedling grass only after the five-leaf stage, to control small seedling weeds. After the grass is well established, higher rates can be used to control hard-to-kill annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth.

**SOD FARMS:** For best results, apply when soil moisture is adequate for good growth and do not mow turf 1 to 2 days before or after application

Target Weeds	Pts of This Product /A
Moderately susceptible biennial and perennial broadleaf weeds	1.0 to 4.0 (0.46 to 1.87 lbs ae)
Weeds in seedling grass	0.75 to 1.0 (0.35 to 0.46 lbs ae)
Difficult to control weeds and woody plants	Up to 4.0 (1.87 lbs ae)

# Restrictions

- REI is 48 hours.
- Do not make more than 2 applications per year.
- Minimum of 21 days between applications. Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Do not apply more than 8.56 pints of this product (4.0 pounds acid equivalent) per acre per season, excluding spot treatments.
- · Do not graze dairy animals on treated areas within 7 days after application.
- Do not graze meat animals on treated areas within 3 days before slaughter.
- Do not cut treated grass for hay within 30 days after application.

#### Precautions

- Do not apply from early boot to the milk stage if seed production is intended.
- Do not use on bentorass unless grass injury can be tolerated.

#### **ORNAMENTAL AND RECREATIONAL TURF**

For weed control on golf courses, cemeteries, parks, and lawns, Apply when weeds are small and actively growing and prior to bud stage.

Weeds	Pts of This Product /A
Postemergence: Moderately susceptible biennial and perennial broadleaf weeds	2.0 to 4.0 (0.94 to 1.87 lbs ae)

#### Restrictions

- Do not make more than 2 applications per year.
- ٠ Do not apply more than 3.2 pints of this product (1.5 pounds acid equivalent) per acre per application.
- Do not apply more than 6.4 pints of this product (3.0 pounds acid equivalent) per acre per season, excluding spot treatments.

#### Precautions

- Do not apply to newly seeded areas until grass is well established.
- Use sufficient gallonage for thorough and uniform coverage.

NON-CROPLAND (FENCEROWS, HEDGEROWS, ROADSIDES, DRAINAGE DITCH-ES. ROADSIDES ADJACENT TO ORCHARDS, RIGHTS-OF-WAYS, UTILITY POWER LINES, RAILROADS, AND OTHER NON-CROP AREAS)

Weeds	Pts of This Product /A
Moderately susceptible biennial and perennial broadleaf weeds	2.0 to 4.0 (0.94 to 1.87 lbs ae)
Difficult to control weeds and woody plants	Up to 4.0 (1.87 lbs ae)
Southern wild rose	1.0 gal (3.74 lbs ae) plus 4.0 to 8.0 fl oz of an agricultural surfactant per 100 gal of water
Basal Spray, Cut Surface-Stumps, Frill, Tree Injection	See instructions in the <b>Forestry</b> section

#### Restrictions

- · 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 com-mercial seed production, or for research purposes.
- Do not graze dairy animals for 7 days following application.

#### Postemergence (annual and perennial weeds):

- Do not make more than 2 applications per year.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.
- Minimum of 30 days between applications.

#### Postemergence (woody plants):

- Do not make more than 1 application per year.
- Do not apply more than 8.56 pints of this product (4.0 pounds acid equivalent) per acre per year.

#### Precautions

 Do not apply to newly seeded area until grass is well established. Bentgrass, clover. legumes and dichondra may be injured by this treatment. Use sufficient gallonage for thorough and uniform coverage.

#### AQUATIC WEED CONTROL

(Ponds, Jakes, reservoirs, marshes, bayous, drainage ditches, canals, rivers, and streams that are guiescent or slow moving) (NOT REGISTERED FOR AQUATIC USE IN NEW YORK STATE)

#### DITCH AND IBRIGATION CANAL BANKS

#### Seventeen Western States:

Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming.

For control of annual and perennial broadleaf weeds, apply 2.0 to 4.0 pints (0.94 to 1.87 pounds acid equivalent) of this product per acre in 20 to 100 gallons of water per acre. Treat when weeds are young and actively growing before the bud or early bloom stage. For harder-to-control weeds a repeat spray after 3 to 4 weeks using the same rates may be needed for maximum results. Water within treated banks must not be fished.

For woody brush and patches of perennial broadleaf weeds, mix 1.0 gallon of this product (3.74 pounds acid equivalent) in 150 gallons of water. Wet foliage thoroughly using about 3.5 gallons of solution per 1000 sq. feet.

#### Restrictions

#### Postemergence:

- Do not make more than 2 applications per season.
- Do not apply more than 4.28 pints of this product (2.0 pounds acid equivalent) per acre per application.

- · Minimum interval of 30 days between applications.
- ٠ Spot treatment permitted.
- Do not use on small canals with a flow rate less than 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

- Do not graze dairy animals on treated areas within 7 days after application.
- Do not graze meat animals on treated areas within 3 days before slaughter.
- Do not cut treated grass for hay within 30 days after application.

#### 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 with an average of less than onefoot overspray to prevent introduction of greater than negligible amounts of chemical into the water.

#### FLOATING AND EMERGENT WEEDS

Apply to emergent aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, non-irrigation canals, rivers, and streams that are quiescent or slow moving.

#### Restrictions

- Do not apply more than 8.56 pints of this product (4.0 pounds acid equivalent) per surface acre per application.
- Do not make more than 2 applications per season.
- Minimum interval of 21 days between applications.
- Treated Water Use Instructions must be followed.

#### Precautions

- Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for aquatic applications.
- Fish Toxicity: To avoid fish kill from decaying plant material, do not treat more than one half the lake or pond at one time. For large bodies of weed infested waters leave buffer strips of at least 100 feet wide and delay treatment of these strips for 4 to 5 weeks or until the dead vegetation has decomposed.

Spot treatments are permitted.

Except as stated above, there are no restrictions on using water from treated areas for swimming, fishing, watering livestock or domestic purposes.

#### SUBMERSED WEEDS

Apply to aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, non-irrigation canals, rivers, and streams that are guiescent or slow moving.

Surface Application: Use power sprayers operated with a boom or spray gun mounted on a boat, tractor, or truck. Thorough wetting of foliage is essential for maximum control. Use 100 to 400 gallons per acre of spray mixture. Special precautions, such as the use of lower pressure, large nozzles, and thickening agents should be taken to avoid spray drift in areas of sensitive crops.

Air Application: Use drift control spray equipment or thickening agents mixed into the spray solution. Apply 8.0 pints of this product (3.74 pounds acid equivalent) per acre through standard boom systems with a minimum of 5 gallons of spray mixture per acre.

#### Restrictions

- Do not apply within 21 days of previous application.
- When treating moving bodies of water, applications must be made while traveling upstream to prevent concentration of 2,4-D downstream from the application.
- Treated Water Use Instructions must be followed.
- Do not apply more than 23.1 pints (10.8 pounds acid equivalent) per acre-foot per application.
- Do not make more than 2 applications per season.

#### Precautions

- Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for such use.
- Fish Toxicity: To avoid fish kill from decaying plant material, do not treat more than one half the lake or pond at one time. For large bodies of weed infested waters leave buffer strips of at least 100 feet wide and delay treatment of these strips for 4 to 5 weeks or until the dead vecetation has decomposed.

	For Typical Conditions		For Difficult Conditions*	
	Pints of This Product/A	Pounds acid equivalent /A	Pints Of This Product /A	Pounds acid equivalent /A
1	11.54	5.4	23.10	10.8
2	23.10	10.8	46.20	21.6
3	34.60	16.2	69.20	32.4
4	46.20	21.6	92.40	43.2

Table 1. Amount of 2,4-D to Apply for a Target Subsurface Concentration

\* Examples include spot treatment of pioneer colonies of Eurasian Water Milfoil and certain difficult to control aquatic species.

#### Table 2. Drinking Water Setback Distance for Submersed Weed Applications

Application Rate and Minimum Setback Distance (feet) From Functioning Potable Water Intake

	1 ppm*	2ppm*	3ppm*	4ppm*
	600	1200	1800	2400
	*		untin a	

\* ppm acid equivalent target water concentration

#### Table 3. Sampling for Drinking Water Analysis After 2,4-D Application for Submersed Weed Applications

Minimum Days After Application Before Initial Water Sampling at the Functioning Potable Water Intake

1ppm*	2ppm*	3ppm*	4ppm*
5	10	10	14

\* ppm acid equivalent target water concentration

# TREATED WATER USE INSTRUCTIONS

# 1. Water for Irrigation or Sprays

- A. If treated water is intended to be used only for crops or non-crop areas that are labeled for direct treatment with 2,4-D such as pastures, turf, or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.
- B. Flóating and Emergent Weeds: Due to potential phytotoxicity considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for plants grown in commercial nurseries and greenhouses; and other plants or crops that are not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:
  - A setback distance from functional water intake(s) of greater than or equal to 600 ft was used for the application, or,

- ii. A waiting period of 7 days from the time of application has elapsed, or,
- An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1ppm) or less at the water intake. Wait at least 3 days after application before initial sampling at water intake.

Submersed Weeds: Due to potential phytotoxicity and/or residue considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for unlabeled crops, noncrop areas (see the Non-Cropland Instructions above for a list of these sites) or other plants not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:

- A setback distance described in the Drinking Water Setback Table was used for the application, or,
- ii. A waiting period of 21 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. See Table 3 for the waiting period after application but before taking the initial sampling at water intake.

#### 2. Drinking water (potable water):

- A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2.4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2.4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.
- B. Floating and Emergent Weeds: For floating and emergent weed applications, the drinking water setback distance from functioning potable water intakes is greater than or equal to 600 ft.

Submersed Weeds: For submersed weed applications, the drinking water setback distances from functioning potable water intakes are provided in Table 2. Drinking Water Set back Distance (above).

Floating and Emergent Weeds: If no setback distance of greater than or equal to 600 ft is used for application, applicators or the authorizing organization must provide a drinking water notification prior to a 2.4-D application to the party responsible for public water supply or to individual private water users. Notification to the party responsible for a public water supply or to individual private water users. Notification to the party responsible of a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water user serstrictions when this product is applied to potable water. The Aquatic Posting Notification Example section is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.

Submersed Weeds: If no setback distance from the Drinking Water Setback Table (Table 2) is to be used for the application, applicators or the authorizing organization must provide a drinking water notification and an advisory to shut off all potable water intakes prior to a 2.4-D application. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water user restrictions when this product is applied to potable water. The Aquatic Posting Notification Example section is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.

- D. Floating and Emergent Weeds: Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:
  - A setback distance from functional water intake(s) of greater than or equal to 600 ft was used for the application, or,
  - A waiting period of at least 7 days from the time of application has elapsed, or,
  - iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than 3 days after 2,4-D application. Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515.555. Other methods

for 2,4-D as may be listed in Title 40 CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.

Submersed Weeds: Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:

- A setback distance described in the Drinking Water Setback Distance Table (Table 2) was used for the application, or,
- A waiting period of at least 21 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than stated in Table 3. Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40 CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste Sw.846).
- E. Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.
- F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.

# AQUATIC POSTING NOTIFICATION EXAMPLES

#### Floating and Emergent Weed Applications:

Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting must include the day and time of application. Posting may be removed if analysis of a sample collected at the intake 3 or more days following application shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 7 days following application, whichever occurs first.

Text of notification: Wait 7 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested at least 3 days after application and is demonstrated by assay to contain not more than 70 ppb 2.4-D (100 ppb for irrigation or sprays). Application Date: Time:

#### Submersed Weed Applications:

Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting must include the day and time of application. Posting may be removed if analysis of a sample collected at the intake no sooner than stated in Table 3 shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 21 days following application, whichever occurs first.

Text of notification: Wait 21 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested no sooner than (insert days from Table 3) and is demonstrated by assay to contain not more than 70 ppb 2.4-D (100 pb for irrigation or sprays). Application Date: Time:

# STORAGE AND DISPOSAL

PROHIBITION: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Do not store under conditions which might adversely affect the container or its ability to function properly.

PESTICIDE STORAGE: Do not store below temperature of 25° F. If frozen, warm to 70° F and redissolve before using by rolling or shaking the container. Store in a safe manner. Store in original container only. Store in cool, dry place. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

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:

#### For Nonrefillable containers.

Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold irinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) a twww.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promotiv, after emptying.

For packages up to 5 gallons: 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 ¼ 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. 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.

For packages greater than 5 gallons or 50 lbs: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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 or 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 nonzel 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.

#### For refillable containers:

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 percent 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. In Case of Spill: For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

Steps to be taken in case material is released or spilled: Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PROD-UCTS, INC. or the seller is authorized to vary in any way.

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