

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460

EPA Reg.

Number:

35935-5

IMAR 2 1 1996

NOTICE OF PESTICIDE:

<u>x</u> Registration __ Reregistration

Term of Issuance: Conditional

(under FIFRA, as amended)

Name of Pesticide Product:

Nufarm 2,4-D LV-4

Name and Address of Registrant (include ZIP Code):

Nufarm Limited 1009-D West St. Maartens Drive St. Joseph, MO 64506

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

- Submit and/or cite all data required for registration/ reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
- Make the following label changes before you release the product for shipment:
 - a. Revise the EPA Registration Number to read, "EPA Reg. No. "35935-5".
 - b. Add the following statement at the end of the oral statement of practical treatment: "Avoid Alcohol."
 - c. Delete the skin sensitization statement ("Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.") from the Hazards to Humans and Domestic Animals section on page 1.

Signature of Approving Official:

Date:

MAR 2 1 1996

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3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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

The use of the subject product on reduced or no-tillage soybeans (pre-plant only) is conditionally accepted with an expiration date of December 31, 1998. Sale or distribution of the subject product bearing labeling for this use after December 31, 1998 will be illegal. The tolerance authorizing residues of the subject product on soybeans will also expire on December 31, 1998. After that date, sale or distribution of food in interstate commerce containing any residue of the subject product will be a violation of the Federal Food, Drug, and Cosmetic Act. If and when a permanent tolerance is established, EPA will entertain an application to amend the registration of the subject product without any special limitations on the duration of the amendment.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller Product Manager (23) Fungicide-Herbicide Branch Registration Division (7505C)

Enclosure

RD:STANTON:PM Team 23:Rm. 235:CM-2:305-5218:Disk #2:35935-L.REG

			c	ONCURRENCES				
SYMBOL .	7505C							
SURNAME +	S. Stanton		•				•	
DATE .	Mar 19, 1996							
EPA Form 13	20-1 (12-70)	<u> </u>	1	A	<u> </u>	<u> </u>	OFFICIAL FIL	E COPY

ACCEPTED with COMMENTS In EPA Letter Dated MAR 2 1 1996

NUFARM LIMITED

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

2,4-D LV4

LOW VOLATILE HERBICIDE

For control of susceptible broadleaf weeds in cereal grains, corn, sorghum, sugarcane, non-crop areas, preplant soybeans, forestry and aquatic uses

ACTIVE INGREDIENT:	
2-Ethylhexyl ester of 2,4-Dichlorophenoxyacet	ic acid66.5%
Incrt Ingredients*	
*Contains Petroleum Distillates	
Equivalent to 44.1% of 2,4-Dichlorophenoxyac	etic acid or 3.8 lb./gal. Isomer specific by AOAC
Method.	
EPA Reg. No. 35935-	EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION - CAUCION

PRECAUCION AL USUARIO: Si usted no entiende la etiqueta, busque a alquien 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.)

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Do not induce vomiting. Get medical attention. Do not give anything by mouth to an unconscious person.

IF ON SKIN: Wash contaminated areas thoroughly with soap and water. Get medical attention.

IF IN EYES: Flush with plenty of clean water for 10-15 minutes. Get medical attention.

NOTE TO ATTENDING PHYSICIAN: May cause chemical pneumonitis if aspirated. If lavage is performed, suggest endotracheal and/or esophagoscopic control.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION - CAUCION

Harmful if swallowed or absorbed through the skin. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber or Vitron
- Shoes plus socks
- Protective eyewear

For containers of over 1 gallon, but less than 5 gallons: Mixers and loaders who do not use a closed mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in additional to the other required PPE.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Engineering Controls Statements

For container of 5 gallons or more: A closed mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff-may adversely affect aquatic invertebrates and nontarget plants. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

AGRICULTURAL CHEMICAL

Do not ship or store with foods, feeds, drugs, or clothing.

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE CALL CHEMTREC (800) 424-9300

Before buying or using this product, read "Warranty Limitations and Disclaimer" elsewhere on this label. If terms are not acceptable, return unopened package at once to seller for full refund or purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under the Warranty Limitations and Disclaimer.

WARRANTY LIMITATIONS AND DISCLAIMER

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the DIRECTIONS FOR USE when used under normal conditions. THIS IS THE ONLY WARRANTY MADE ON THIS PRODUCT. NO OTHER EXPRESS AND NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OUTSIDE OF THIS LABEL. Therefore, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or

user must promptly notify seller, in writing, of any claims to be eligible to receive either remedy given below. The EXCLUSIVE REMEDY OF THE BUYER OR USER and the LIMIT OF LIABILITY of seller will be one of the following, at the election of the seller:

- 1. Refund of purchase price paid by buyer or user for product bought or
- 2. Replacement of amount of product used.

The seller will not be liable for consequential or incidental damages or losses. The terms of this Warranty Limitations and Disclaimer cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations and Disclaimer in any manner.

DIRECTIONS FOR USE

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

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

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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 such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber or Vitron
- Shoes plus socks
- Protective eyewear

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Do not store near heat or open flame. Re-close all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticide D. posal".

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities.

To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification.

Opened, partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container.

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 DISPOSAL

METAL CONTAINERS: Triple rinse (or equivalent), adding rinsate to spray tank. 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: Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

Performance of this product may be affected by local conditions, crop varieties, and application method. User should consult local Extension Service, Agricultural Experiment, or University Weed Specialists, and state regulatory agencies for recommendations in your area.

Best results are obtained when product is applied to young succulent weeds that are actively growing. The lower recommended rates will be satisfactory on susceptible annual weeds. For perennial weeds and conditions such as the very dry areas of the western states, where control is difficult, the higher recommended rates should be used.

When product is used for weed control in crops, the growth stage of the crop must be considered. Some plants and weeds, especially woody varieties, are difficult to control and may require repeat applications.

Application rates should be 1 to 5 gallons of total spray by air or 5 to 25 gallons by ground equipment unless otherwise directed. In either case, use the same amount of 2,4-D recommended per acre. On crops, use of this product with oil, surfactants, or other adjuvants may reduce selectivity and cause crop damage.

Aerial applications should be used only when there is no danger of drift to susceptible crops. Many states have regulations concerning aerial application of 2,4-D formulations. Consult local regulatory authorities before making applications. Although this product is a low volatile formulation, at temperatures above 90°F vapors may damage susceptible crops growing nearby.

Because coarse sprays are less likely to drift than fine, do not use equipment (such as hollow cone small orifice nozzles) or conditions (such as high pressure) that produce such sprays.

Product should not be allowed to come into contact with desirable, susceptible plants such as beans, cotton, fruit trees, grapes, legumes, ornamentals, peas, tomatoes, and other vegetables. Product should not be used in greenhouses. Do not apply when wind is blowing towards susceptible crops. Excessive amounts of this product in the soil may temporarily inhibit seed germination and all plant growth.

Users should note that herbicide treatment of public water requires a permit from appropriate state agencies in most states. Your State Conservation Department, or Game and Fish Commission will aid you in securing a permit in your state.

If stored below freezing, efficacy is not affected if product is warmed to 40°F and agitated before using.

Spray equipment used to apply 2,4-D should not be used for any other purpose until thoroughly cleaned with a suitable chemical cleaner.

Spray Preparation: Add the recommended amount of product to approximately 1/2 the volume of water to be used for spraying. Agitate well, then add the remainder of the water. Continue agitation during application until spray tank is empty.

USE IN LIQUID NITROGEN FERTILIZER: Product may be combined with liquid nitrogen fertilizer suitable for foliar application in corn, grass, pastures, or small grains in one operation. Use product according to directions on this label for those crops. Use liquid nitrogen fertilizer at rate recommended by supplier or Extension Service Specialist. Mix the product and fertilizer according to the following instructions: Fill the spray tank approximately 1/2 full with the liquid nitrogen fertilizer. Add the product while agitating the tank. Add the remainder of the fertilizer while continuing to agitate. Apply immediately, maintaining agitation during application until tank is empty. DO NOT APPLY DURING COLD (NEAR FREEZING) WEATHER. Spray mixture must be used immediately and may not be stored.

NOTE: (1) If good, continuous agitation is not maintained, separation of the spray mixture and/or clogging of the nozzles is likely to occur.

NOTE: (2) If user's spray program includes frequent application of 2,4-D in liquid fertilizer, consideration should be given to using **SEE@2,4-D which is specially designed and formulated for such use.

WHERE TO USE

This product is used to control susceptible broadleaf weeds in cereal crops, corn, sorghum, sugarcane, non-crop areas, rangeland, pastures, forestry and aquatic weed control.

WEEDS CONTROLLED

When used properly, product will kill or control the following in addition to many other noxious plants susceptible to 2.4-D:

Alligatorweed Ironweed Arrowhead Jimson weed Artichoke Lambsquarters Bindweed (hedge, Lecoweed field, and Mexican weed European) Morningglory Bitter wintercress Mustard Boxelder Parrotfeather Buckhorn Pennywort

Bull thistle Pigweed (non-hybrid)

Bulrush Plantain Burdock Pokeweed Bur ragweed Povertyweed Buttercup Puncturevine Canada thistle Purslane Catnip Rush

Chickweed < Russian thistle Chicory Sagebrush Cocklebur Shepherdspurse Coffeebean

Sowthistle Common ragweed Stinkweed Creeping jenny Sumac . Cudweed Sunflower

WEEDS CONTROLLED (continued)

Curly dock **Swinecress** Curly indigo Velvetleaf

Cutleaf evening Vetch - narrow leaf primrose Virginia creeper Dandelion Waterhyacinth Dock

Waterlily

Dogfennel
Duckweed ~
Elderberry

Waterprimrose Wild lettuce Wild radish Willow

Giant ragweed Goldenrod Ground ivy

Hemp

Hoary cress Honeysuckle

Indigo

LESS SUSCEPTIBLE WEEDS

Kochia

Smartweed

Hairy vetch

Wild garlic

Pigweed (hybrid)

Wild onion

Poison ivy

CROPS

Small grains (barley, oats, wheat, rye), not underseeded with a legume: See table for recommended use rates. Spray when weeds are small after grain begins tillering but before boot stage (usually 4 to 8 inches tall). Do not apply before the tiller stage nor from early boot through milk stage. To control large weeds that will interfere with harvest or to suppress perennial weeds, pre-harvest treatment can be applied when the grain is in the dough stage. Best results will be obtained when soil meisture is adequate for plant growth and weeds are growing well.

Spring Planted Oats: Use 1/2 pint per acre in sufficient water to give good coverage. Apply after the fully tillered stage, except during the boot to dough stage.

Fall Planted Oats: Apply 1/4 to 1-1/4 pints per acre after full tillering but before early boot stage. Some difficult weeds may require the higher rates of 3/4 to 1-1/4 pints per acre for maximum control, but injury may result. Do not spray during or immediately following cold weather.

Note: Oats are less tolerant to 2,4-D than wheat or barley and more likely to be injured. Do not forage or graze treated grain fields within 14 days after treatment with 2,4-D. Do not feed treated straw to livestock.

Wheat and Barley: Control of wild garlic and wild onion.

For improved control of difficult weeds including wild garlic and wild onion, apply 1 to 2 pints of product per acre. Since these rates may injure the crop, do not use unless possible crop damage is acceptable. For the higher rates on spring wheat and barley, consult your local State Agricultural Experiment Station or Extension Service Weed Specialist for recommendations or suggestions to fit local conditions.

Control of Wild Garlic in Stubble Grain Fields:

Following the harvest of small grains, wild garlic often produces new fall growth. This should be sprayed with 2 to 3 quarts of product per acre. This is a useful practice as one part of wild garlic control program. Do not forage for 14 days following applications. Do not plant any crop for three months after treatment.

Corn: See table for recommended use rates.

Preemergence: Apply product to emerged weeds from 3 to 5 days after planting but before corn emerges. Do not use on very light, sandy soil. Use the higher rates on heavy soils. Plant corn as deep as practical. Product will not control weeds which have not emerged.

Postemergence: Best results are usually obtained when weeds are small and corn is 4 to 18 inches tall. When corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage as much a possible. Do not apply from tasseling to dough stage. If corn is growing rapidly and temperature and soil moisture is high, use 1/2 pint per acre to reduce possibility of crop damage. Delay cultivation for 8 to 10 days to prevent stalk breakage due to temporary brittleness caused by 2,4-D. Application rates of up to 1 pint per acre may be used to control some hard to control weeds. However, the possibility of injury to the corn is increased.

Since the tolerance to 2,4-D of individual hybrids varies, consult your seed supplier, local Extension Service, Agricultural Experiment Station, or University Weed Specialist for information.

Pre-harvest: After the hard dough or denting stage, apply 1 to 2 pints of product per acre 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. Do not forage or feed corn fodder to livestock for 7 days following application.

Post-harvest: Following the harvest of corn, wild garlic often produces new fall growth. This should be sprayed with 2 to 3 quarts of product per acre. This is a useful practice as one part of a wild garlic control program. Do not forage for 7 days following application. Do not plant any crop for three months after treatment.

Sorghum (Milo): See table for recommended rate. Apply to sorghum when crop is 4 to 12 inches high with secondary roots well established. Use drop nozzles when crop is over 10 inches high. Do not apply from flowering to dough stage. Rates of up to 1 pint per acre may be used to control some hard to control weeds. However, the chance of crop injury is increased with the higher rates. Do not use with oil. Use lower rate if conditions of high temperatures and high soil moisture exist.

RECOMMENDED RATES OF PRODUCT PER ACRE**

CROP (SEE DETAILED INSTRUCTIONS ABOVE)	RATE, AVERAGE CONDITIONS	مر	RATE, DRY CONDITIONS AS IN WESTERN STATES*
Small Grains (Wheat, Barley, Rye):			
Annual Weeds	1/2 to 1 pint		1 to 2 pints
Perennial Weeds	1 pint		1-1/4 to 2 pints
Pre-harvest	1 to 2 pints		
Oats:			
Spring	1/2 pint		
Fall	1/2 to 3/4 pint		
Corn:			
Preemergence	1 to 2 quarts		
Postemergence	1/2 pint		1/2 to 3/4 pint
Pre-harvest	1 to 2 pints		•
Sorghum (Milo):			
Postemergence	1/2 pint		1/2 to 3/4 pint

^{*}Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming

Sugarcane: Use 2 pints per acre as a preemergence application to control already emerged weeds before canes appear or 4 pints per acre as a blanket spray after cane emerges and through layby. Consult local Agricultural Experiment or Extension Service Weed Specialists on specific use of this product or in combination with particular grass herbicides to control broad-leaved and grass weeds.

Preplant Burndown in Soybeans: Nufarm 2,4-D LV-4 may be used for the foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops prior to reduced till or no till planting of soybeans. Make only preplant applications to emerged weeds prior to the planting of the soybeans.

Product may be tank mixed with liquid fertilizers or crop oils and surfactants to increase effectiveness on certain weeds. Be certain to confirm compatibility of such products with Nufarm 2,4-D LV-4 prior to tank mixing. Follow instructions and precautions on all labels of products to be tank mixed.

Make the application by either air or ground using a total spray volume sufficient for uniform coverage. Use two (2) or more gallons of total spray volume by air or ten (10) or more total gallons by ground.

Make application at rate and timing listed in table below:

Amount of product per acre, Broadcast	Application Time Prior to Planting Soybeans
1 Pint	At Least 7 (seven) days
2 Pints	At Least 15 (fifteen) days

^{**}If band treatment is used, base the dosage rate on the actual area sprayed.

Use Precautions:

- Do not use on sandy soils with less than 1% organic matter.
- Plant soybcan seeds as deep as possible, but not less than 1 inch.
- Use of a rib-type presser wheel is not recommended.
- Adjust planter to ensure adequate coverage of planted seed.

Use Restrictions:

- Do not make more than one application per season.
- In the event of loss of crop, do not replant with crops other than those cleared for use with 2,4-D.
- Do not allow livestock to graze or feed hay, forage or fodder from treated fields.
- Do not feed or allow livestock to graze treated cover crops.

Notice: Use of this product as indicated could cause severe crop injury including stand loss and/or reduced yield. Do not use product as described unless you are prepared to accept such injury.

TURF USES

Use Requirement for Turf Including Grass Seed Crops

Restricted Entry Interval: When used on grass seed crops, follow PPE and reentry instructions in the "Agricultural Use Requirements" section of this label. For use on other turf areas, do not allow people (other than applicator) or pets on treatment area during application. Do not enter into treated areas until sprays have dried.

Restrictions on Re treatment: Do not apply more than 2 broadcast applications per year per treatment site.

Ornamental Turf, such as lawns, golf courses, parks, and cemeteries: Use 1 to 3 pints of product in enough water to give good coverage to one acre on established stands of perennial grasses, depending on type of weeds and stage of growth. Do not use on creeping grasses such as bent except for spot spraying. Newly seeded turf should not be treated until after the second mowing and the lower dosage rate should be used.

When using this product on ornamental turf, wear long-sleeved shirt, long pants, socks, shoes and chemical resistant gloves. After using this product, rinse gloves before removing, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with scap and water. Remove saturated clothing as soon as possible and shower

Grass Seed Crops: Apply 1 to 4 pints of product per acre in the spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seedling grass only after the five leaf stage, using 3/4 to 1 pint per acre to control small

seedling weeds. After the grass is well established, higher rates of up to 4 pints per acre or used to control hard to control annual or perennial weeds. For best results, apply when moisture is adequate for good growth. Do not use on Bent unless injury can be tolerated, graze dairy animals nor cut forage for hay within 7 days of application.

NON-CROP USES

Fallow Land: On established perennial species such as Canada thistle and field bindweed, apply up to 6 pints of product per acre. For annual broadleaf weeds, apply 2 to 4 pints per acre. Do not plant any crop for 3 months after treatment.

Established Pastures and Rangelands: Use 1 to 4 pints of product in sufficient water to give good coverage to one acre depending on type of weeds and stage of growth. Do not apply more than 4 pints of product (2 pounds of 2,4-D acid equivalent) per acre, per application, per site. Use only on established stands of perennial grasses. Do not graze dairy cattle within 7 days of application. Do not apply this product within 30 days of cutting grass for hay. Remove meat animals from treated areas 3 days prior to slaughter.

Wild Garlic and Wild Onion Control: Apply 4 to 6 pints of product per acre making three applications, fall-spring-fall or spring-fall-spring, starting in the late fall or early spring. DO NOT graze dairy animals nor cut forage for hay within 7 days of application.

General Weed Control: (airfield, roadsides, vacant lots, drainage ditch banks, fence rows, industrial sites and similar areas) Use 2 to 6 pints of product per acre. Usually 4 pints per acre will give adequate control. Do not use on herbaceous ground covers or creeping grass such as bent. Legumes will usually be damaged or killed. Deep-rooted perennials may require repeat applications. Do not use on freshly seeded turf until grass is well established. Delay reseeding for 30 days.

Woody Plant Control: To control woody plants susceptible to 2,4-D such as alder, buckbrush, elderberry, sumac, and willow on non-crop areas, use 2 to 3 quarts of product per acre in 100 gallons of water. Wet all parts of the plants thoroughly, including stem and foliage, to the point of runoff. Higher volumes of up to 400 gallons per acre are necessary where the brush is very dense and over 6 to 8 feet high. Applications are more effective when made on actively growing plants. Treatment should not be made during time of severe drought or in early fall when leaves lose their green color. Hard to control species may require re-treatment next season.

USES IN FOREST MANAGEMENT

Conifer Release: For control of alder, apply 1-1/2 to 2 quarts of product per acre in 8 to 25 gallons of water, and apply as a foliage spray between mid-May and mid-June.

For the control of susceptible brush species such as Ceanothus spp., chinquapin, madrone, manzanita, oak and tanoak. Apply 3 quarts of product per acre just before or during bud break of the conifer. To increase performance, add 2 to 4 quarts of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at recommended label rate.

After northern conifers, jack pine, red pine, black spruce, and white spruce cease growth and "harden off" in late summer, a spray of 1-1/2 to 3 quarts of product in 8 to 25 gallons of water per acre may be applied by air to control certain competing hardwood species such as alder, aspen, birch, hazel 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.

Dormant Application (other than pine): For the control of susceptible deciduous brush species such as alder, cascara, cherry, poplar and service berry, 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 water for good 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.

Herbaceous Weed Control: To control over-wintering susceptible weeds such as false dandelion, klamath weed, plantain, and tansy ragwort apply 1 to 3 quarts of product per acre in sufficient water for good 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.

Site Preparation: (As Budbreak Spray) - For control of alder prior to planting seedlings, apply 2 to 4 quarts of product per acre in 8 to 25 gallons of water, after alder budbreak but before foliage is 1/4 full size. Do not apply more than 4 quarts of product (4 pounds 2,4-D acid equivalent) per acre, per application, per site. Application may be made by air or ground. If desired, diesel, fuel oil or kerosene may be substituted for water as diluent. (As Foliage Spray) - For control of alder prior to planting seedlings, apply 2 quarts of product per acre in 8 to 25 gallons of water, 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 agriculture surfactant at recommended label rates, may be added to the spray mixture.

AQUATIC APPLICATIONS

For Aquatic Weeds in Lakes, Ponds, Drainage Ditches, and Marshes: Usc 2-1/2 to 4-1/2 pints of product in 50 to 100 gallons of water per acre. Spray to wet foliage thoroughly. Application should be made when leaves are fully developed above water line, and plants are actively growing. Your State Conservation Department or Game and Fish Commission will assist you in determining the best time and rate for application under local conditions.

DO NOT APPLY to more than 1/3 to 1/2 of a lake or pond in any one month because excessive decaying vegetation may deplete oxygen content of water and kill fish.

Perennial and other hard to control weeds may require a repeat application to give adequate control

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