## ACCEPTED

MAR 1 5 1998

Under the Federal Insecticide. Pungicide, and Rodenticide Act. as amended, for the posticide registered under EPA Reg. No. 1386-60

# 2,4-D LO-V ESTER

Weed Killer

## KEEP OUT OF REACH OF CHILDREN CAUTION

See Side Panel For Additional Precautionary Statements

## **ACTIVE INGREDIENT:**

)

'Isomer Specific Acid Equivalent (43.20% or 3.76 lbs./gal.) by AOAC Method No. 6.D01-5.

**Net Contents: 2 1/2 Gallons** 

EPA Reg. No. 1386-60 EPA Est. No. 7386-0H-1

CU-UP®

Universal Cooperatives, Inc.

Minneapolis, MN 55440

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## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

CAUTION

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, and clothing.

PERSONAL PROTECTIVE EQUIPMENT

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 Stuet Weer:

Long-sleeved shirt and long pants

Chemical-resistant gloves, such as barrier laminate, ntrile rubber, neoprene rubber, or viton

Shows nike socks.

Protective systeman Chamical-resisting agron when cleaning equipment, mixing, or loading 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: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified annotation in the MPR.

### User Safety Recommendations Users should:

users should:
"Wash hands before eating, drinking, chewing gum, using tobacch 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 clea. Jothing.

STATEMENT OF PRACTICAL TREATMENT

If SweRowed: Call a physician or Poison Control Center immediately. Do not induce vorting unless directed by a physician since aspiration hazard exists with this product. If on Skin: Wash affected areas with soap and water, Get medical attention if irritation persists. If in Eyes: Flush with water for at least 15 minutes. Call a physician immediately. If Inhaled: Remove victim to fresh air. Apply respiration if indicated. For Medical Emergency information call 1-800-228-5635, extension 138

### ENVIRONMENTAL HAZARDS

ENVIRONMENTAL HAZARDS

Most cases of groundwater contamination involving phenoxy herbici les such ... 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 is prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of splits. Placement of the mixing/loading equipment on an impervious pad to contain splits will help prevent groundwater contamination. NONADUATIC USES: This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water, or to area where surface water is present or to intended a runs below the mean high water mark. Do not contaminate water intended for irrigation or domestic purposes. Do not contaminate water when disposing of equipment washwaters. Do not apply whiti weather conditions favor drift from target areas. AOUATIC USES: This product is toxic to equatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water except as specified on this label. Do not contaminate water when disposing of equipment washwaters.

### PHYSICAL OR CHEMICAL HAZARUS

Do not use of store near near or open name.

DIRECTIONS FOR USE

It is a volution 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. 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.

AGRICULTURAL USE RECURREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170 T's Standard contains requirements for the protection of agricultural workers on farms, forests, nursenies, and greenhouses, and handlers of agn. itural pesticides, it contains requirements for training, decontainmation, notification, and emergency assistance, it also contains specific instructions and exceptions perfaning 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 are as 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

\*Coveralis.\* Chemical-misstant phases each as harder (misstant or protection).

Coveralls 
 Chemical-resistant gloves, such as barrier laminate, nitritle nubber, neoprene π ' 'yer, or viton 
 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 produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter treated areas without protective clothing until sprays have dired. Written or oral warnings must be given to workers who are expected to be in a treated great or in an area about to be treated with this product. Read he above reentry statement and the precautionary statements owners. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAU-TKON. Area treated with 2.4-D LoV Ester Weed Kilter (contains 2.4-D) on (date of application). Do not enter without appropriate protective clothing until sprays have dired. (Insert here Statement of Practical Treatment from label.)"

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM. 2.4-D to-V Ester Weed Killer will kill or control the following as well as many other noxious plants susceptible to 2.4-D:

Allada Artownead Artichoke Bindweed (Hedge, Field, European) Briter Wintercress Britercress. Britercress,
Smalllowered
Boxelder
B-schorn
Bull Thistia
Bullnette
Bullrush
Burdock
Bur Ragweed
1 tercun

Catnip Chickwerd Chicory Clover, Red Cocklebur, Common Coffeebi an Creeping Jenny Curly Indign Dandelion Dandellori
Dock
Duckweed
Elderberry
Evening Frimrose
Culleat
Goldenrod
Ground Ivy

Honeystickle Horsewited or Marestail Indica Honweed Jimsonweed Lambsquarters, Common Common Locoweed Mexicanweed Momingglory Annual Mustard Parintfeather Periny ress Field

Pennywork "Peppergrass Pigweed Plantain Poison vy Pakewend Povertyweed Puncturevine Ragweed Rush Rush
'Russian Thistle
Sagebrush
Shepherdspron
'Smartweed
Sowthistle
Stinkweed

Sumac Sunflower Velvetleaf Veich, Hairy Velch, Hairy
Virginia Creeper
Waterhyacinth
Waterhilly
Waterprimicse
"Wild Gartic

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

2.4-D Lo-V Ester Weed Killer should be used as a water diluted spray, or may be applied in liquid nitrogen fertilizer (see below), for selective control of susceptible weeds growing in small grain crops, corn, grass seed crops and ornamental turf, and for non-selective control of certain weeds not in growing crops, such as roadsides, lence ricks, and drainage ditch banks.

Do not use in or near a greenhouse. Crops contacted by 2.4-D Lo-V Ester Weed Killer sprays or spray drift may be killed or suffer significant stand loss with extensive quality and yield reduction.

Apply when the weeds are young and in a succulent rapidly growing condition since best results are obtained when soil moisture and temperature conditions are favorable for rapid growth of weed plants. Sprays applied when weeds have stopped growing rapidly, or when they are affected by a lack of moisture in the soil, are often not effective against many kinds of weeds. Spray perennial weeds after they are completely emerged, but before the bloom stage. Kill of weeds may not be evident for 2 to 3 weeks after apraying. Retreatment of areas infested with perennial weeds may be necessary.

Considerable caution must be exercised in using 2.4-D shrips to avoid injury to crops and desirable plants. Do not apply directly to vegetables, grapes, fruit trees, ornamentals, cotton, soybeans, tomatoes or other desirable plants which are sensitive to 2.4-D and do not permit spray mist to drift onto them since even minute quantities may cause severe injury during the gric ving or dommart pe tods. Excessive amounts of this product in the soil may temporanily inhibit seed permission and all plant growth. Coarse sprays are less likely to drift. All high air or ground surface temperatures, vapor from this product may injure susceptible plants in the immediate vicinity. Do not use on creeping crasses, such as Bent, M

agencies in most states. Your State Conservation Department or Game and Fish Commission will aid you in securing a permit in your state.

PREPARATION OF SPRAY AND APPLICATION: Recommended quantities of 2.4-D Lo-V Ester Weed Killer should be added to water in the spray tank at time of application. Agitate or stir to assure a good mixture and continue some agitation during application. The quantity of spray solution to make up will depend upon the equipment to be used. When using a low volume sprayer, the proper dosage should be applied in at least 15 gallons of water per acre, although as little as 5 to 10 gallons per acre have been used successfully in certain instances. When using a ligh pressure sprayer, apply in 150 to 200 gallons of water per acre. For aerial application, apply in 1 to 5 gallons of water per acre. Always use the proper amount of this 2.4-D weed killer per unit of area regardless of the quantity of water. Do not use the spray equipment for other purposes unless thoroughly cleaned.

USE IN LIQUID INTROGEN FERTILIZER: 2.4-D to-V Ester Weed Killer may be combined with some liquid nitrogen fertilizers. However the compatibility of 2.4-D to-V Ester with the fertilizer must be tested before combining in the spray tank.

Amount of 2.4-D to-V Ester to add to one pint of liquid nitrogen fertilizer.

2,4-0 Lo-V Ester Rase/Acre

1/2 Pint	1/4 Teaspoon	V16 Teaspoon	
1 Pim	1/2 Teaspoon	V8 Teaspoon	
2 Pinu	1 Teaspoon	1/4 Teaspoon	
4 Pints	2 Teaspoons	1/2 Teaspoon	

2 Pint.

2 Teaspoon

1/4 Teaspoon

1/2 Teaspoon

1/2 Teaspoon

The amount of herbicide to be insted, as indicated in the above table, is based on either 25 gallons or 100 gallons of finished spray per acre. When using lower or higher spray volumes make appropriate changes in the ingredients of the compatibility test, in a quart jar add the appropriate amount of 2.4—D Lo-V Ester as determined from the above chart to one pint of floud introgen fertilizer. Cover the jar and shake it well. Observe the mixture after 5 minutes and again after 30 minutes. If the mixture does not ball up or form flakes, studge, gets, city films or layers or other precipitates, then the tested combination is compatible. If precipitates form but the mixture can be resuspended with agitation, the combination may be used, provided good agitation is maintained throughout the mixing and application operations. If it is noompatibility occurs, the use of a suitable compatibility agent may solve the problem. Rerun the above compatibility sets, but add 1/4 teaspoon of a compatibility agent may solve the problem. Rerun the above compatibility sets, but add 1/4 teaspoon of a compatibility agent prior to adding the 2.4-D Lo-V Ester. (The 1/4 teaspoon is equivalent to 2 pints per 100 gallons of liquid nitrogen ferritizer). If the mixture is still incompatible, DO NOT USE

If the 2.4-D Lo-V Ester/fertilizer mixture is compatible without the use of a compatibility agent, fill the spray tank with half the amount of fertilizer to be used. Add the 2.4-D Lo-V Ester, with agitation, and complete filling the tank with the fertilizer. Apply immediately and continue agitation in the spray tank during application. If a compatibility agent must be used, add it to the spray tank prior to adding the 2.4-D Lo-V Ester. Follow applicable recommendations and field application rates on the fertilizer and compatibility agent labeling as well as the 2.4-D Lo-V Ester labeling.

SMALL GRAIN CROPS (Wheat, Barley, Rya, Osta): See table for recommended use rates. Spray when

within 14 days after treatment. Do not feed treated straw to livestock.

CORN
See table for recommended use rates
Proplant (Field Corn): This product may be applied prior to planting field corn to provide foliar burn. Jown control of susceptible annual and perennal broadleaf weeds and certain broadleaf cover.

crops such as those listed on this lahel. To control emerged broadleaf weed seedings or existing cover crops prior to planting corn, apply 1 to 2 pints per acre 7 to 14 days before planting. On not use on light, sandy soil or where moisture is inadequate for normal weed growth. Use high rate for control of less susceptible weeds or cover crops such as alfalfa.

Presentengenca: Apply to soil after planting but before corn emerges. Do not use on very light, sundy soils or where soil moisture is inadequate for normal weed growth. Use lower rate of application on loam soils and higher rate on clay soils. Use high rate on soil high in organic matter. Plant corn as deep as practical.

Prostomergency: Best results are usually obtained when weeds are small and corn is 4 to 18 inchest tall, When corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage as much as possible. Do not apply from tassecting to dough stage, it corn is growing rapidly and temperature and soil moisture content is high, use 1/2 pint per acre rate to reduce the possibility of crop damage. Delay cultivation for 8 to 10 days after application to reduce possibility of stalk breatage from temporary bint-teness caused by 2,4-D. Hybrid corn should be sprayed only if the cross of line is known to be tolerant to 2,4-D at the recommended dosage, or after experience has shown the particular crosses or lines being grown to be tolerant to 2,4-D at partners.

Preservests After the hard dough or denting stage, apply 1 to 2 pints per acre by air or ground equipment to suppress perennial wends, decrease weed seed production, and control tall weeds such as bridweed, cocklebur, dogbane, jin sonweed, regreed, sunflower, velvettesf, and vines that interfere with harvesting. Do not forage or feet corn fodder to livestock for 7 days following application.

SORGHARIAM (MINIO): See table for recommended use rates.

Apply when sorghum is 4 to 12 inche, high with accondary roots well established. When crop is over 10 inches tall, use drop nozzles to keep

### RECOMMET DED RATES OF 2,4-D LO-1 STER WED KILLER

Crop (See Detailed Instructions Above)	sage Per Acre**	
	Normal Rates (Usu-Hy Safe To Crop)	Higher Rates For Special Situations (More Likely To Injure Crop)
SMALL GRAINS		
(Wheat, Barley, Rye): Annual Weeds	1/2 to 1 Prot	
Perennial Weeds	Pint	1 to 2 Pints 1 1/4 to 2 Pints
Preharvest	1 to 2 Pints	i iva to 2 minus
OATS		
Spring	1/2 Pint	
Fall "	1/4 to 3/4 Pint	3/4 to 1 1/4 Pints
Preharvest	1 to 2 Pints	
CURN		
Preplant (Field Com)	1 to 2 Pints	
Preemergence	1 to 2 Quarts	
Postemergence	1/2 Pint	1/2 to 3/4 Pint
Preharvest	1 to 2 Pints	
SORGHUM (Milo)		
Postemergence	1/2 Pint	1/2 to 3/4 Pint

"The higher rates as recommended above may be necessary to contrul difficult weed problems such as under dry conditions in the Western states. They should not be used, however, unless possible crop injury is acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recomm distions or suggestions to fit local condition."

"If band treatment: —wed base the dosage rate on the victual area sprayed.

FOR MARK BETTERNS IN SOVIETARIS

FOR MIRE IN CROP RESERVE SEAMANDEMENT SYSTEMS IN SOVERARS

(Proplient Applicantion Only)

2.4-D Lo-V Ester Weed Killer may be used for postemergence control of many susceptible annual and perennial broadlest weeds. This product may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadlest weeds and certain broadlest cover crops such as those listed on this label. Make only preplant applications to emerged weeds prior to planting soybeans grown in reduced billage involuction systems. Apply only according to instructions piven below. Do not use any fullage operations between herbicide application and planting of soybeans Mixing Instructions: Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may be add and a paray moture to increase the herbicidal effer uneness of 2.4-D Lo-V Ester Weed Killer on ceruain weeds. Read and follow all directions and procautions on this label and on the label of each product added to the spray minute.

Application Procedures: Apply using air or ground equipment in a spray volume sufficient to provide uniform coverage of weeds. Use 2 or more gallons of total spray volume per acre for senial application and 10 or more gallons per acre for ground equipment.

APPLICATION TRIMING AND USE RATES

.MODUCT	BROADCAST APPLICATION RATE	' WHEN TU APPLY (Days Prior To Planting So, heans)
2,4 D co-V Ester	1 Pint/Acre 2 Pints/Acre	Not Less Than 7 Days Not Less Than 30 Toys

For best weed control results, application should be made when weeds are small actively growing and free of stress caused by temperature extremes, poisture stress, diseases, or insent damage. The control of individual weed species may be variable. Consult your fixial corinty agent or State Agricultural Extension Specialists or Grop Consultant for advice.

\*\*The Processions and Restrictions:\*\*
\*\*Important Notice\*\*- Unacceptable injury to soybeans plant d in tipated fields may occur. Whether in not

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soybean injury occurs and the extract of such injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and apronomic factors such as " .e. amount of wead vegetation and previous crop residue present at the time of application, injury is more likely under cool rainy conditions and when, there is less weed vegetation and crop residue present." Do not use on sandy sols with less than 1.0% organic matter.
"Do not make more than one application per season regardless of the application rate used."

Do not apply when weather conditions such as atmospheric temperature inversion or when wind direction favors drift from the treated season regardless respective inversion or when wind direction favors.

Do not apply when weather committee again as attemption to a susceptible plants.
 Do not allow divestock grazing or harvest hay, forage or fodder from treated fields. Livestock should be restricted from feeding/grazing of

treated cover crops.

In treated fields, plant soybeen seed as deep as practical, but not less than 1.0 inch deep. Adjust the planter if necessary to ensure that planted seed is advantable covered.

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and/or yield reduction.

During the growing season following application do not replan: treated fields with crops other than those labeled for use with 2.4-D Lo-V Ester Weed Killer.

\* During the growing season following application do not replan: treated fields with crops other than those labeled for use with 2,4-D Lo-V Ester Weed Killer.
\* SUGARCANE: Use 2 pints per acre as a presemergence application before cance appear or 2 quarts per acre as g. blanket spray after cancernerges and through layby, to aid in the control of Johnsongrass seedilings and succeptible broadlesf weeds.
LAWN AND ORNAMENTAL TURET: Use 1 to 3 pints of 2,4-D Lu-V Ester Weed Killer in enough water to give goor coverage to one acre on established stands of perannial grasses. Do not apply to creeping grasses such as bent except for spot spraying. Newly seeded but should not be treated until after the second mowing and the lower dosage rate should be used. Reseeding of treated areas should be delayed following treatment. With spring spojication, reseed in the fall application, reseed in the spring, Legumes are usually demaged or builed, therefore, do not treat areas where the legumes are desired. Deep rooted perennial weeds may require repeated treatments in the same season or in subsequent years. The maximum number of broadcast applications per treatment site is 2 per year.
GRASS SEED CROPS: Apply 1 to 4 pints of 2,4-D Lu-V Ester Weed Killer in the spring, or fall to control broadlesf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seading grass only after the five leaf stage, using 3/4 to 1 pint per acre to control small seeding weeds. After the grass is well established, higher rates of up to 4 pints can be used to control broadlesf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seading grass only after the five leaf stage, using 3/4 to 1 pint per acre to control small sending weeds. After the grass is well established, higher rates of up to 4 pints can be used to control brind to hill annual or parennial weeds. For best results, apply when soil moisture is adequate for good growth. Do not use on Bent us less injury

wide control of some species, Deep-noted percrinal weeds may require repeated treatments in the same year or in subsequent parts. Willd Gartic and Wild Onlean: Apply 4 pints per acre, making three applications (fall-apring-fall or spring-fall-spring) starting in late felt of early spring.

Weed Control in Newly Springged Coestal Bermudagrees: Apply 2 to 4 pints per acre preemergence and/or postemergence.

Sand Shinnery Oak and Sand Sagabrush: On the oak, use 2 pints in 5 gallons of oil or in 4 gallons of water plus 1 gallon of oil per acre. Apply by sircraft between May 15 and June 15. On the sagebrush, use 2 pints in 3 gallons of oil per acre and apply by sircraft when foliage is fully expended and the brush is actively proving.

Big Sagabrush and Rabbitbrush: Use 4 pints per acre in 2 to 2 pints in 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. Brush should be leafed out and growing society when treated. Retreatment may be read defectiveness. Make applications by sixtraft or ground equipment to obtain uniform spray coverage. For effective control, the brush must be fully leafed out and growing society when sprayed. Retreatment may be needed.

General Meed Control (Altriadda, Roadsides, Vecant Lists, Drainage Ditch Benks, Fence Rows, Industrial Sites, and Sindar Arransip: Use 1 to 2 quarts per acre. Usually 2 quarts per acre will give adequate control. Do not use on herbaccosus ground covers or creeping grass such as Bent Legumes will usually be damaged or killed Deep-noted perennials may require repeat applications. Do not use on freshy seeded turf until grass is well established. Delay reseeding for 30 citys or until 24-D has disappeared from soil. The maximum number of broadcast applications or treatment site is 2 per year.

Moodly Plant Control: To control woodly plants susceptible to 2,4-D, such as Alder, Buckbrush Elderberry, Surrac, and Willow on non-crop areas, use 2 quarts in 100 gallons of water. Wet all parts of the plants thoroughly, including stem and foliage, to the point of r

species may require retreatment next season.

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or water, after a super purposes, that before in things is the full stage.

Aquatic Applicationsc.

For Aquatic Applicationsc.

For Aquatic Meeds in Lakes, Ponds, Drainage Ditches, and Marshes: Usc. 2.1/2 to 4 pints of product in 50 to 100—flors of water per acre. Scray to wet foliage throughly. Application should be made when leaves are fully developed above waterline and plants. —actively growing. Yor: 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 oxigen content of water and still fish Perennial and other hard to control weeds may require a repert application to give adequate control.

STORAGE: Do not contaminate water, food, or feed by storage or disposal. Do not store near feetilizers, seeds, inserticides, or fungicides. Do not use or store near heat or open flame. PESTICIDE DISPOSAL: Pesti side wasters are toxic. Improper disposal of Excess pesticide, spray mixture, or insate is a violation of Federal law and may contaminate groundwater. If these wastes connot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazerdous Waste representative at the nearest EPA Regional Office for guidance. CONTAINER DISPOSAL: Troje rinse for equivalent). The night 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 the burned, stay out of smoke.

WARRANTY ARD LIMITATION OF DAMAGES

Sellier warrants that this material conforms to its chemical description and its reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Sellic risks, is not other express or implied warranty of Fitness or of M