PM23 ) 1381-101 ) 1-87



Amended label submission of 05/26/89.
C*L*A*S*S

HERBICIDE

**CLASS**

**LV 6**
**2,4-D WEED KILLER**

| | |
|---|---|
| ACTIVE INGREDIENT: | |
| Isooctyl Ester of 2,4-Dichlorophenoxyacetic acid* | 88.8% |
| INERT INGREDIENTS: | 11.2% |
| Total | 100.0% |

*Isomer Specific by AOAC Method No. 6.275 13th Edition 1980
*2,4-Dichlorophenoxyacetic acid equivalent ... 59.1%
Contains 5.6 lbs. 2,4-Dichlorophenoxyacetic acid per gallon

KEEP OUT OF REACH OF CHILDREN (12 pt. type size)

**CAUTION** (18 pt. type size)

SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 1381-101

EPA Est. No. 407-IA-1S, 407-MN-1A
Superscript used corresponds to
letter in lot number

NET CONTENTS _____

Manufactured For
CENEX/LAND O'LAKES AGRONOMY CO.
St. Paul, MN 55164

ACCEPTED
OCT 30 1989
Under the Federal Insecticide, Fungicide, and Rodenticide Act for the registration number 1381-101

## PRECAUTIONARY STATEMENTS
## HAZARDS TO HUMANS AND DOMESTIC ANIMALS
## CAUTION

Harmful if swallowed. Do not get in eyes, on skin or clothing. In case of contact, wash with soap and water. Avoid inhaling spray or mist. In case of contact with eyes wash with plenty of water.

Do not forage or graze treated grain fields within 2 weeks after treatment with 2,4-D. Do not feed treated straw to livestock. Do not graze pastures or rangeland to dairy animals within 7 days after treatment. Remove meat animals from treated pastures or rangeland 3 days before slaughter.

## ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff adversely effect aquatic invertebrates and nontarget plants. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwaters.

DON'T OVERDOSE! Follow directions carefully. Do not let spray drift to sensitive plants such as vegetables, legumes, grapes, flowers or other 2,4-D susceptible plants. Use coarse spray to reduce "wind drift". Local spray conditions will vary. Check local recommendations first. Use separate spray equipment for insecticides and fungicides. Do not make aerial application near cotton or sensitive plants. Under certain high temperature conditions, vapors from this product will injure nearby susceptible plants.

## DIRECTIONS FOR USE

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

## RE-ENTRY STATEMENT

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. The PRECAUTIONARY STATEMENTS should be read to workers as well as the instruction not to enter until sprays have dried. 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: "CAUTION: Area treated with 2,4-D on (date of application). Do not enter without appropriate protective clothing until sprays have dried."

STORAGE AND DISPOSAL (12 pt. type size)

**STORAGE:** Store in a secure area, in original container only, away from fertilizers, food, or feed. Do not store near insecticides or fungicides.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of 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. Do not contaminate water, food, or feed by storage or disposal.

**CONTAINER DISPOSAL:** Metal Containers: Triple rinse (or equivalent). 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.

**CONTAINER DISPOSAL:** Plastic Containers: Triple rinse (or equivalent). 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.

When stored at temperatures below freezing, it may be necessary to warm contents to 70 degrees Fahrenheit and mix thoroughly before using.

This product will control the listed plants and other 2,4-D susceptible species: Alligatorweed, tall and devil's beggarticks, blueweed (Texas), boxelder, broomweed, buckbrush, buckhorn plantain, burdock, burhead, buttercup, carpetweed, catnip, chamise, chickweed, chicory, cocklebur, coffeeweed, common mullein, cornflower, coyotebrush, croton, curly indigo, dandelion, docks, common duckweed, elderberry, annual fleabane, fanweed, galinsoga, wild garlic, goatsbeard, goldenrod, halogeton, hemp, henbit, jewelweed, jimsonweed, lambsquarters, locoweed, mallow (Venice), manzanita, marshelder, milkvetch, morning-glory (annual), mustards (except blue), nettles, nutgrass, onion (wild), Parrot feather, pennycress, pepperweed (field), redroot and smooth pigweed, plantain, poorjoe, poison ivy, pokeweed, prickly lettuce, puncturevine, common purslane, rabbitbrush, radish (wild), ragweed (common and giant), rape (wild), redstem, rush, sagebrush (costal, big, sand), salsify, sand shinnery oak, sheep sorrel, shepherdspurse, sicklepod, sneezeweed (bitter), sowthistle (annual), Spanishneedles, stinkweed, sumac, sunflower, sweetclover, tansymustard, tansy ragwort, tumbleweed, velvetleaf, Virginia creeper, Waterprimrose, willow, wild sweet potato, witchweed, wormwood, yellow rocket, yellow starthistle.

Partial control can be expected on the following less susceptible species: artichoke, bindweeds (hedge, field, and European), buckwheat (wild), creeping jenny, ground ivy, climbing milkweed, smartweed, thistle (bull, Canadian, musk and Russian). Deep-rooted perennials such as Canadian thistle and field bindweed and woody plants may require repeat applications.

Apply when weather is warm and plants are rapidly growing. Cold weather or dry conditions may cause poor results. DO NOT apply if rain is expected within 1 hour.

Consult your Extension Service or Agricultural Experiment Station for local use and crop tolerance situations.

This product may be applied as a water, oil, or adjuvant based spray. Use coarse sprays to minimize drift. DO NOT apply where spray may come in contact with any desirable plants or susceptible crops other than those listed on this label.

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

When using ground equipment, apply using the volume of water indicated under each crop listing, keep boom nozzles close to crop, using flooding or flat fan nozzles with 20 pounds or less of pressure. If wind exceeds 7 miles per hour, spraying should stop. DO NOT apply with hollow cone or any other mist producing nozzle.

When using aerial equipment, apply using the volume of water indicated under each crop listing, at 20 pounds or less nozzle pressure using nozzles that produce a coarse spray pattern. Spray only when wind is blowing less than 5 miles per hour.

For those crops where application restrictions such as crop height, timing, or methods do not allow a single listing, apply using a minimum of 3 gallons of water by ground application,(10 or more gallons under adverse growing conditions) and 1 gallon of water,( 3 gallons or more under adverse growing conditions) by aerial application.

Apply the recommended amount of 2,4-D per acre regardless of the amount of diluent used.

Application by any means should take place only when there is no danger of spray drift. Do not apply near cotton, grapes, tomatoes, or other 2,4-D susceptible crops or vegetables. Do not apply when the wind is blowing toward these crops or plants.

**MIXING INSTRUCTIONS:**

**WATER-BASED SPRAY:** Fill the equipment half full of water, agitate while adding this product, then add rest of water.

**WATER AND SOYBEAN OIL OR PETROLEUM OIL-BASED SPRAY:** First mix this product with the oil then add to water. If vigorous agitation is possible, the oil can be added last. **DO NOT** ADD OIL FIRST!

**SOYBEAN OIL OR PETROLEUM OIL-BASED SPRAY:** Add this product to straight oil to form a solution. Do not allow water to get into this mixture, if it does an invert emulsion will occur.

**NITROGEN FERTILIZER:** The compatability of this product must be tested with the fertilizer before its use in application equipment. This is done by means of a quart jar test as follows: The amount of this product to add to 1 pint of liquid nitrogen fertilizer is determined by using this table --

| AMOUNT OF 2,4-D | GALLONS OF FERTILIZER PER ACRE | | | | |
|---|---|---|---|---|---|
| | 10 | 20 | 30 | 40 | 50 |
| PER ACRE | TEASPOONS OF 2,4-D PER PINT OF FERTILIZER | | | | |
| 1/2 pint | 2/3 | 1/2 | 1/3 | 1/4 | 1/8 |
| 1 pint | 1 1/4 | 1 | 3/4 | 1/2 | 1/4 |
| 2 pints | 2 1/2 | 2 | 1 1/2 | 1 | 1/2 |
| 4 pints | 5 | 4 | 3 | 2 | 1 |

The amount in the table is based on gallons of finished spray per acre. Different spray volumes will require appropriate changes in the amount of this product added to 1 pint of fertilizer. Add the required amount of this product to 1 pint of fertilizer in a quart jar and shake to mix well. Let the mixture stand and examine it after 5 minutes and again after 30 minutes. The product is incompatible if it balls up, forms flakes, sludges, gels, oily films, layers, or other precipitates. If the precipitate can be suspended with agitation, the combination can be used if the equipment has vigorous agitation throughout mixing and spraying operations.

In some cases, when incompatibility occurs, the addition of 1/4 teaspoon of a compatibility agent to the jar before adding this product may solve the problem (1/4 teaspoon is equal to 2 pints per 100 gallons of fertilizer). IF THIS DOES NOT WORK, DO NOT ATTEMPT THE ADDITION OF THIS PRODUCT TO THE FERTILIZER.

**--Fertilizer Mixing Sequence:** Add this product to liquid fertilizer for weed and feed applications at the rates specified on this label. Fill the equipment half full of fertilizer, make a pre-mix of 1 part this product and 4 parts water and add to fertilizer with agitation ON. Then add balance of fertilzer and apply immediately with agitation ON. DO NOT leave spray mixture in tank overnight.

**CORN:** Use the lower rate for small annual weeds. Use the higher rate for perennial or hard-to-kill weeds. To avoid injury, do not use with atrazine, oil, or other adjuvants.
**--Postemergence:** Apply 1/3 pint per acre after corn is up. Two-thirds pint per acre may be needed to control some weeds, but this rate may injure the corn. If corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage as much as possible. **DO NOT** apply from 2 weeks before tasseling to dough stage. **DO NOT** apply to open whorls. High moisture and temperature conditions may cause injury or brittleness. **DO NOT** cultivate for a week to 10 days after treatment.
**--Late Season Weed Control** (To reduce weeds that interfere with harvest and reduce weed seed production): After silks are completely brown apply 2/3 to 1-1/3 pints per acre.
**SMALL GRAINS** (Not underseeded with a legume): For aerial application, apply the recommended amount in a minimum of 1 gallon of water per acre. Use 3 or more gallons under adverse growing conditions. For ground application, apply the recommended amount in a minimum of 3 gallons of water per acre. Use 10 or more gallons under adverse growing conditions. NOTE: Do not let dairy animals or animals being finished for slaughter forage or graze treated fields within 2 weeks after treatment. Use the lower dose rate for small annual or biannual weeds. Use the higher dose rate for perennial or hard-to-kill weeds.
**--Spring Wheat, Barley, and Rye:** Apply 1/3 pint per acre when grain is in full tiller stage (4 to 8 inches high) but before boot stage when weeds are small and actively growing. One and one-third pint per acre may be used to control difficult weed problems, but do not use unless some crop damage is acceptable.
**--Winter Wheat and Rye:** Apply 1/3 to 1/2 pint per acre only in spring before grain is in boot stage.
**--Spring-seeded Oats:** Apply 1/3 to 1/2 pint per acre at full tiller, but before early boot stage. Some injury may occur since oats are less tolerant to 2,4-D than wheat or barley.
**--Fall-seeded Oats Grown For Grain (Southern):** Apply 1/2 to 1 pint per acre at full tiller, but before early boot stage. Difficult weeds may require higher rate, but some injury may occur since oats are less tolerant to 2,4-D than wheat or barley. **DO NOT** spray during or just after cold weather.

**--Preharvest Treatment:** Apply 2/3 to 1-1/3 pints per acre when grain is in hard dough stage to control weeds that will interfere with harvest. Apply when soil moisture is adequate for weed growth for best results. **NOTE: DO NOT** feed treated straw to livestock.
**MILO (GRAIN SORGHUM):** For aerial application, apply 1 to 2 quarts in a minimum of 1 gallon of water per acre. Use 3 or more gallons under adverse growing conditions. For ground application, use the same amount in a minimum of 3 gallons of water per acre. Use 10 or more gallons under adverse growing conditions. **NOTE:** Some varieties and hybrids are 2,4-D sensitive. Crop injury may also be increased by high moisture and temperature conditions. Check with your seed company and Extension Service for advice. Apply 1/3 pint per acre when plants are 5 to 15 inches tall. A higher rate of 1/2 to 2/3 pint per acre may be needed for some weeds, but chances of crop injury may increase. **DO NOT** use oil. **DO NOT** treat crop less than 5 inches tall or from boot to early dough stage. Use drop nozzles when crop is over 8 inches tall.

**CONSERVATION RESERVE PROGRAMS AND SET-ASIDE ACRES: NOTE: DO NOT** use on alfalfa, clover, other legumes or newly seeded areas.
**--Broadleaf Weeds:** For aerial application, apply 1 to 2 quarts in a minimum of 1 gallon of water per acre. Use 3 or more gallons under adverse growing conditions. For ground application, use the same amount in a minimum of 3 gallons of water per acre. Use 10 or more gallons under adverse growing conditions. Deep-rooted perennial weeds may require a higher rate or repeated treatments.
**--Brush:** Aerial Application -- Apply 1 to 2 quarts in a minimum of 2 gallons of water per acre. One gallon of fuel oil may be included in the mixture. For ground application, apply 2-1/4 to 3 quarts in 5 to 10 gallons of water plus 1 gallon of oil or the labelded amount of **CENEX/Land O'Lakes 17% Concentrate** or other adjuvant per acre for Buckbrush, Rabbitbrush, Sagebrush, Coyotebrush and other Chaparrel Species. Apply 2-1/4 to 3 quarts in 5 gallons of oil or 4 gallons of water plus 1 gallon of oil per acre for Sand Shinnery Oak.
**FOR SET-ASIDE ACRES:** Once the Agricultural Stabilization Conservation Service has released Set-Aside Acres for grazing, do not allow dairy animals to graze treated pastures or rangeland withing 7 days of application. Do not harvest grass for hay within 30 days of application. Remove meat animals from treated pastures or rangeland 3 days before slaughter.
**FOR CONSERVATION RESERVE PROGRAMS: DO NOT** harvest or graze at <u>any</u> time.

**PASTURES AND RANGE LAND:** For aerial application apply the recommended amount in a minimum of 2 gallons of water per acre. For ground application use a minimum of 10 gallons of water per acre. **NOTE: DO NOT** apply after heads form or when grass is in boot to milk stage when a seed crop is desired. **DO NOT** use on alfalfa, clover, other legumes, or newly seeded pastures. **DO NOT** allow dairy animals to graze treated areas within 7 days of application. Do not harvest grass for hay within 30 days of application. Remove meat animals from treated pastures or rangeland 3 days before slaughter. **--Broadleaf Weeds:** Apply 1-1/2 to 3 pints per acre in sufficient water for good coverage. Deep-rooted perennial weeds may require a higher rate or repeated treatments.
**--Brush:** Apply 1-1/2 to 2 quarts in 5 to 10 gallons of water plus 1 gallon of oil or the labeled amount of **CENEX/Land O'Lakes 17% Concentrate** or other adjuvant per acre for Buckbrush, Rabbitbrush, Sagebrush, Coyotebrush and other Chaparral Species. Apply 1-1/2 to 2 quarts in 5 gallons of oil or 4 gallons of water plus 1 gallon of oil per acre for Sand Shinnery Oak.

**NON-CROP AREAS:** To control plants susceptible to 2,4-D in drainage ditchbanks, fencerows, roadsides, and rights-of-way. For aerial application to solid stands of susceptible brush, apply 1 1/3 to 2 2/3 quarts in 3 to 12 gallons spray volume per acre. Two to 4 quarts of fuel oil may be included in this mixture. For ground application, to control annual broadleaf weeds, use 1 1/3 to 2 2/3 pints, for perennial and biennial weeds use 2 to 4 pints, for woody plants use 2/3 to 1 1/3 gallons per acre in 30 to 100 gallons of water. **CENEX/Land O'Lakes 17% Concentrate** or other adjuvant may be added to increase effectiveness. Spray woody plants to run-off when fully leafed out and growing. Avoid spraying when plants are not actively growing such as mid-summer. Reseeding the treated areas should be delayed until the following season. Deep-rooted perennials may require repeated treatments.

**SPOT TREATMENT:** For weeds in non-crop areas, use 1/6 pint in 3 gallons of water, mix thoroughly, and spray to run-off. This high dosage rate may only be used where injury can be tolerated.

**NOTICE OF WARRANTY:** Buyer assumes all risk of use, storage, or handling of this product when not in strict accordance with directions given herewith.