

7/15/93 Resubmission in response to Agency letter of 6/18/93

R
CLASS
CROP PROTECTION

CLASS
LV 4
PHENOXY HERBICIDE

ACCEPTED
3 SEP 1993

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 1381-102

ACTIVE INGREDIENT:

2,4-Dichlorophenoxyacetic acid*

isooctyl (2-ethylhexyl) ester 66.2%

INERT INGREDIENTS: 33.8%

Total 100.0%

*Isomer Specific by AOAC Method No. 6.275 13th Edit. on 1980-

*2,4-Dichlorophenoxyacetic acid equivalent ... 44.0%

Contains 3.8 lbs. 2,4-Dichlorophenoxyacetic acid per gallon-

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

R CLASS is a registered trademark of Cenex/Land O'Lakes Agronomy Company
EPA Reg. No. 1381-102

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

BEST AVAILABLE COPY

A-92

Distributed By
CENEX/LAND O'LAKES AGRONOMY CO.
St. Paul, MN 55164

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 may adversely affect nontarget plants. For terrestrial uses, do not apply directly to water, or 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.

CLASS LV4-PAGE-2-7/15/93 SUBMISSION

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.

Wash spray equipment thoroughly with CLASS Protank Cleaner after using this product. When cleaning equipment, do not pour washwater on the ground; spray or drain over a large area away from wells and other water sources.

Use care to avoid spray contact or drift to susceptible plants such as beans and other legumes, cotton, flowers, grapes, ornamentals, vegetables, and other plants. Do not permit spray mist containing this product to drift onto them, since even very small quantities of the spray, which may not be visible can cause severe injury during both growing and dormant periods.

DIRECTIONS FOR USE

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

When handling this product, wear chemical resistant gloves.

REENTRY STATEMENT

BEST AVAILABLE COPY

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 you State Department of Agriculture for further information.

Written or oral warnings must be given to workers that are 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

STORAGE: Store in a secure area, in original container only. Do not store near feed for foodstuffs.

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.

CLASS LV4-PAGE-3-7/15/93 SUBMISSION

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 45 degrees Fahrenheit and mix thoroughly before using.

WEED LIST

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.

USE DIRECTIONS

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 an hour.

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

Avoid spray drift by making applications when conditions such as wind, air stability and temperature inversions are not a factor. The use of CLASS Precision Drift Control Agent at the proper rate will aid in the reduction of spray drift.

When using ground equipment, apply using the volume of water indicated under each crop listing, using flooding or flat fan nozzles with 20 pounds or less of pressure. DO NOT apply with hollow cone or any other mist producing nozzle.

BEST AVAILABLE COPY

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.

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, (more under adverse growing conditions) and 5 gallons of water, (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.

DO NOT apply this product through any type of irrigation system.

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 compatibility 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 PER ACRE	GALLONS OF FERTILIZER PER ACRE				
	10	20	30	40	50
	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. 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 teaspoon of a compatibility agent such as CLASS COMPLETE COMPATIBILITY to the jar before adding this product may solve the problem (1 teaspoon is equal to 1 pint per 100 gallons of fertilizer). IF THIS DOES NOT WORK, DO NOT ATTEMPT THE ADDITION OF THIS PRODUCT TO THE FERTILIZER.

--Fertilizer Mixing Sequence: If a compatibility agent is not required, add half the fertilizer to the tank, make a premix of 1 part this product and 4 parts water and add premix to tank with agitation ON. Then add balance of fertilizer. Apply at once with agitation ON. If a compatibility agent is required, add it to half-full tank before premix addition. Then proceed as above. **MAKE SURE TO FOLLOW ALL DIRECTIONS ON THIS AND THE FERTILIZER AND COMPATIBILITY AGENT LABELING.**

ADJUVANTS for Preemergence and Preplant Applications: A non-ionic surfactant or a crop oil concentrate may be added to the spray solution when this product is applied preemergence or preplant to increase control of large or difficult to control weeds. Crop oil concentrates must contain at least 17% emulsifier, and should be used at 1% volume/volume (1 gallon per 100 gallons of spray solution). Non-ionic surfactants should be used at 0.25% volume/volume (1 quart per 100 gallons of spray solution).

CORN: Use the lower rate for small annual weeds. Use the higher rate for perennial or hard-to-kill weeds.

--Preplant: CLASS LV4 may be applied prior to planting corn for control of emerged broadleaf weeds. Rates up to 2 pints per acre may be used. Planting of corn must be delayed a minimum of 7 days after application at rates up to 1 pint per acre, and a minimum of 14 days at rates from 1 to 2 pints per acre. Planting sooner after application than specified on this label may result in unacceptable crop injury. Do not perform tillage for at least 7 days after application. Do not use on sandy soils or unacceptable crop injury may result.

--Preemergence - Reduced Tillage Systems: CLASS LV4 may be applied after corn is planted but before emergence for control of emerged broadleaf weeds. Rates up to 2 pints per acre may be used. The seed furrow must be completely closed at application or severe crop injury may result. Do not use on sandy soils or unacceptable crop injury may result.

--Postemergence: Apply 1/2 pint per acre after corn is up. 3/4 to 1 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. To avoid injury, do not use with atrazine, oil or other adjuvants. Application during 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 1 to 2 pints per acre.

SOYBEANS - Preplant: CLASS LV4 may be applied prior to planting soybeans for control of emerged broadleaf weeds. Rates up to 2 pints per acre may be used. Planting of soybeans must be delayed a minimum of 7 days after application at rates up to 1 pint per acre, and a minimum of 30 days at rates from 1 to 2 pints per acre. For aerial application, apply the recommended amount in a minimum of 2 gallons of water per acre. Use more under adverse growing conditions. For ground application, apply the recommended amount in a minimum of 10 gallons of water per acre. Use more under adverse growing conditions. Do not perform tillage for at least 7 days after application. Do not use on sandy soils or unacceptable crop injury may result. Do not replant treated fields in the same growing season with crops that are not labeled for 2,4-D pre-plant use. Only one application per growing season, regardless of the application rate used, is allowed. Do not feed hay, forage, or fodder. Restrict livestock from grazing treated fields. Livestock should be restricted from feeding/grazing of treated cover crops. Do not graze or cut soybeans for feed from fields that have had 2,4-D applied as a preplant treatment.

SMALL GRAINS (Not underseeded with a legume): For aerial application, apply the recommended amount in a minimum of 2 gallons of water per acre. Use more under adverse growing conditions. For ground application, apply the recommended amount in a minimum of 3 gallons of water per acre. Use more 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 1/2 to 1 pint per acre when grain is in full tiller stage (4 to 8 inches high) but before boot stage (Zadoks 25 to 40) when weeds are small and actively growing. Up to 2 pints 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 1/2 to 1 pint per acre only in spring when crop is fully tillered but before grain is in boot stage (Before Zadoks 40). For improved control of difficult weeds apply up to 2 pints per acre. **HOWEVER, DO NOT USE UNLESS POSSIBLE CROP INJURY CAN BE TOLERATED.**

--Spring-seeded Oats: Apply 1/2 to 2/3 pint per acre at full tiller, but before early boot stage (Zadoks 25 to 40).

--Fall-seeded Oats Grown For Grain (Southern): Apply 2/3 to 1 1/2 pints per acre at full tiller, but before early boot stage (Zadoks 25 to 40). 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 1 to 1 2/3 pints per acre when grain is in hard dough stage (Zadoks 87) 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 the recommended amount in a minimum of 2 gallons of water per acre. Use more under adverse growing conditions. For ground application, apply the recommended amount in a minimum of 3 gallons of water per acre. Use more 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 1/2 pint per acre when plants are 5 to 15 inches tall.

A higher rate of 2/3 to 1 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.

FALLOW LAND AND CROP STUBBLE: For control of annual broadleaved weeds, use 1 to 2 pints per acre. Use the lower rate on small actively growing weeds. Use the higher rate on larger or weather stressed weeds. For biennial weeds, use 2 to 4 pints per acre. Use the lower rate in the spring on biennial weeds such as the musk thistle during the rosette stage before stalk formation. Use the higher rate after stalk formation, or in the fall. For perennial weeds, use 2 to 6 pints per acre. Apply during bud to bloom stage while weeds are actively growing. Do not till for 2 weeks after treatment or until weeds start to die. For wild garlic and onion, use 4 to 6 pints per acre. Apply to regrowth in the fall after harvest. For aerial application, use a minimum of 2 gallons of water per acre. Use more under adverse growing conditions. For ground application, use 3 gallons per acre. Use more under adverse growing conditions. Do not graze treated areas for 7 days after treatment. Remove meat animals from treated areas 3 days before slaughter. Do not replant treated areas for 3 months after application or until chemical has disappeared from the ground.

CONSERVATION RESERVE PROGRAMS AND SET-ASIDE ACRES: For aerial application, apply the recommended amount in a minimum of 2 gallons of water per acre. Use more under adverse growing conditions. For ground application, apply the recommended amount in a minimum of 3 gallons of water per acre. Use more under adverse growing conditions. **NOTE: DO NOT** use on alfalfa, clover, other legumes or newly seeded areas.

CLASS LV4-PAGE-7-7/15/93 SUBMISSION

--Broadleaf Weeds: Apply 1-1/2 quarts per acre. Deep-rooted perennial weeds may require a higher rate or repeated treatments.

--Brush: -- For Buckbrush, Rabbitbrush, Sagebrush, Coyotebrush and other Chaparral Species; -- Apply 2-1/4 to 3 quarts in 5 to 10 gallons of water plus 1 gallon of oil or 1-2 quarts of a crop oil concentrate with at least 17% emulsifiers per acre or a non-ionic surfactant at .25% V/V surfactant to water -- (1 qt. per 100 gallons of water) per acre.

For Sand Shinnery Oak; -- Apply 2-1/4 to 3 quarts in 5 gallons of oil or 4 gallons of water plus 1 gallon of oil or 1-2 quarts of a crop oil concentrate with at least 17% emulsifiers per acre or a non-ionic surfactant at .25% V/V surfactant to water -- (1 qt. per 100 gallons of water) per acre

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 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.

FOR CONSERVATION RESERVE PROGRAMS: DO NOT harvest or graze at any time.

PASTURES AND RANGE LAND: For aerial application apply the recommended amount in a minimum of 2 1/2 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 quarts per acre. Deep-rooted perennial weeds may require a higher rate or repeated treatments.

--Brush: For Buckbrush, Rabbitbrush, Sagebrush, Coyotebrush and other Chaparral Species; -- Apply 2 1/4 to 3 quarts in 5 to 10 gallons of water plus 1 gallon of oil or 1-2 quarts of a crop oil concentrate with at least 17% emulsifiers per acre or a non-ionic surfactant at .25% V/V surfactant to water -- (1 qt. per 100 gallons of water) per acre.

For Sand Shinnery Oak; -- Apply 2 1/4 to 3 quarts in 5 gallons of oil or 4 gallons of water plus 1 gallon of oil or 1-2 quarts of a crop oil concentrate with at least 17% emulsifiers per acre or a non-ionic surfactant at .25% V/V surfactant to water -- (1 qt. per 100 gallons of water) per acre.

NON-CROP AREAS: To control plants susceptible to 2,4-D in drainage ditchbanks, fencerows, roadsides, and rights-of-way. For aerial application of solid stands of susceptible brush use 2 to 4 quarts in 3 to 12 gallons volume per acre. Two to 4 quarts of fuel oil may be included in this mixture. For ground application, apply 3 quarts for woody plants or 1 quart for broadleaf weeds in 30 to 100 gallons of water. For increased effectiveness, add a crop oil concentrate with at least 17% emulsifiers at 1-2 qts. per acre or a non-ionic surfactant at .25% V/V surfactant to water -- (1 qt. per 100 gallons of water). 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 4 ounces to 3 gallons of water, mix thoroughly, and spray to run-off. This high dosage rate may only be used where injury can be tolerated.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OF MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company. including, but not limited to, incompatibility with products other than those set forth in the Directions, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

In case of emergency involving this product or for user safety information on this product, contact Cenex/Land O' Lakes via CHEMTREC at 1-800-424-9300.

BEST AVAILABLE COPY