

Reg # 5905-72

PM-23

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**CAUTION**

Avoid contact with eyes, skin and clothing. In case of contact with weed killer, flush eyes with water. Avoid inhaling spray mist. May cause skin irritation. Avoid contamination of food stuffs. Harmful if swallowed. If swallowed, call a physician immediately.

**OBSERVE THESE PRECAUTIONS**

Avoid application of spray or drift of spray to desirable plants, as this product may injure cotton, tomatoes, beans, peas, most vegetables, ornamentals, grapes, or others. Even minute quantities of the spray may cause severe injury. Accordingly application by airplanes should be made only when there is no hazard from drift. All sprays are likely to drift under certain conditions. The finer the spray, the greater the likelihood of drift effect. Coarse sprays are less likely to drift.

Use only amount needed. **DO NOT OVERDOSE.**

Since vapors of the ester in this product may injure susceptible plants in the vicinity, use only where there is no danger from such vaporization.

Be sure that airplane spraying equipment has a quick-acting, effective cutoff valve, and is used from the lowest possible altitude by an aircraft operator experienced in the application of herbicides.

Do not use same equipment for other purposes. If necessary to use sprayer for any other spraying, be sure to thoroughly clean all equipment with a suitable chemical cleaner (1 qt. of household ammonia in 20 to 25 gals. water—let stand overnight, then rinse thoroughly with water).

Do not store or place near fertilizers, seeds, plants, insecticides, or fungicides. Do not re-use empty container. Destroy by burying in a safe place. Do not burn. Do not contaminate irrigation ditches or water used for domestic purposes. Excessive amounts of Helena 2,4-D Amine in the soil may temporarily inhibit seed germination or plant growth.

Helena 2,4-D Amine exposed to sub-freezing temperatures should be warmed to at least 40° F and mixed thoroughly before using.

Keep out of lakes, streams and ponds. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

A selective water soluble herbicide for the control of susceptible broadleaved weeds in growing small grain crops, corn, sugar cane, pastures, lawns, and turf.

**FOLLOW DIRECTIONS CAREFULLY**

Always mix with water, so as to apply the recommended amount of Helena 2,4-D Amine per acre in the amount of water necessary to cover an acre of ground with the spraying equipment used.

Apply 2,4-D sprays at low pressures of approximately 30 to 50 pounds, with nozzles adjusted to give a coarse, wetting, fan-shaped spray. For airplane application, adjust nozzle to produce a coarse, wetting spray consisting of large droplets.

For best results apply 2,4-D sprays when soil and climatic conditions are conducive to rapid plant growth. This product may be applied when temperatures range from 50° to 95°, results may be unsatisfactory below 65° and above 90°. Sprays applied under adverse conditions (abnormally cool or hot and dry weather or when weeds are near maturity) should contain maximum recommended dosage. Under such conditions, control results may not always be entirely satisfactory.

The recommendations given are general. Because of varietal and local conditions, consult Agricultural Experiment Station or Extension Service weed specialists.

**NON-WARRANTY NOTICE**

Follow directions carefully. Seller warrants such directions to be proper and that product conforms to the descriptions on this label. Timing and method of application, weather and crop conditions, and other influencing factors in the use of the product are beyond the control of the Seller, so Seller makes no other warranty, express or implied (including a warranty of merchantability), with reference to the results or effects of use. No person has authority to make any representation not contained on this label.

THIS CONTAINER IS NON-RETURNABLE

Conversion Table

2,4-D Acid Required	1 lb	3/4 lb	1/2 lb	3/8 lb	1/4 lb	1/8 lb
Amount 2,4-D Amine to use	2 pts	1 1/2 pts	1 pt	3/4 pt	1/2 pt	1/4 pt

NET CONTENTS

U.S. GALLONS



# 2,4-D A

**CAUTION** KEEP OUT OF REACH  
SEE OTHER CAUTIONS

ACTIVE INGREDIENTS (By Weight)  
\*Dimethylamine salt of 2,4-Dichlorophenoxy  
INERT INGREDIENTS .....

\*2,4-Dichlorophenoxyacetic Acid equivalent  
Isomer specific by AOAC

ACCEPTED

NOV 7 1980

General Inspector

5905-72

**HELENA**

Manufactured  
**HELENA CHEMICAL**  
Memphis, TN 38117

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If contact with weed killer, flush eyes with water. Avoid contamination of food stuffs. Immediately.

**PRECAUTIONS**

plants, as this product may injure cotton, grapes, or others. Even minute quantities of this product applied by airplanes should be made only under certain conditions. The product. Coarse sprays are less likely to drift.

For susceptible plants in the vicinity, use only

having an effective cutoff valve, and is used by an operator experienced in the application of

It is necessary to use sprayer for any other use with a suitable chemical cleaner. (1 qt. of cleaner overnight), then rinse thoroughly with

pesticides, or fungicides. Do not re-use equipment. Do not contaminate irrigation equipment with Helena 2,4-D Amine in the growth.

Equipment should be warmed to at least 40° F.

When weather conditions favor drift from spraying equipment or disposal of wastes.

Do not apply to susceptible broadleaved weeds in growing lawns and turf.

**CAREFULLY**

Amount of Helena 2,4-D Amine per acre and with the spraying equipment used. 30 to 50 pounds, with nozzles adjusted for application, adjust nozzle to produce a

Under adverse conditions are conducive to rapid results range from 50° to 95°. results may be applied under adverse conditions (plants are near maturity) should contain results, control results may not always be

For local conditions, consult local authorities.

**NOTICE**

It is to be proper and that product should be applied under conditions of application, weather and crop conditions are beyond the control of the manufacturer (including a warranty of use. No person has authority to make

**TURNABLE**

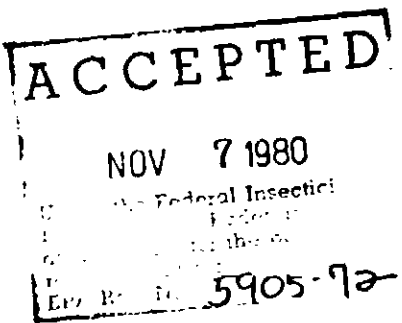


# 2,4-D AMINE

**CAUTION** KEEP OUT OF REACH OF CHILDREN  
SEE OTHER CAUTION STATEMENTS ON SIDE PANEL.

ACTIVE INGREDIENTS (By Weight)	
"Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid	46.6%
INERT INGREDIENTS	53.4%
Total	100.0%

\*2,4-Dichlorophenoxyacetic Acid equivalent 38.7% — 3.76 lbs. per gallon.  
Isomer specific by AOAC method 6.D01-5.



3/8 lb	1/4 lb	1/8 lb
3/4 pt.	1/2 pt.	1/4 pt.

U.S. GALLONS



# AMINE

REACH OF CHILDREN  
CAUTION STATEMENTS ON SIDE PANEL.

phenoxyacetic acid .....	46.6%
.....	53.4%
Total .....	100.0%

1 equivalent 38.7% — 3.76 lbs. per gallon.  
by AOAC method 6.D01-5.

**BEST AVAILABLE COPY**



Manufactured by:  
**HEMICAL COMPANY**  
phis. TN. 38137

**AIRPLANE APPLICATION — Water** — Dilute recommended amount of Helena 2,4-D Amine in 3 to 10 gallons of water and apply per acre.

**GROUND SPRAYERS** — Dilute recommended amount in 8 to 20 or more gallons of water and apply per acre. The amount of water required will depend upon the crop and type of equipment used. Thorough agitation of spray mixture is necessary for best results.

## TO CONTROL WEEDS IN RESISTANT CROPS

The following dosages are suggested on growing crops for the control of susceptible weeds such as mustard, sunflower, lamb's-quarters, pigweed, ragweed, dock, cocklebur, sow thistle, marsh elder, and many other species. Perennial weeds are best when in bud or in early bloom stage of growth.

**WHEAT, OATS, BARLEY and RYE** — 2,4-D sprays applied during seedling stage of growth may reduce yields. When crop plants are tillering (stooling), use 1/2 to 1 pint of Helena 2,4-D Amine per acre and 1 to 1-1/2 pints per acre when fully tillered (stooled) — but before the early boot stage.

Sprays containing 2 to 3 pints per acre may be applied as an emergency weed control: measure when seed in heads is past dough stage.

When small grain is underseeded with a legume such as alfalfa or clovers, use 1/4 to 1/2 pint of Helena 2,4-D Amine per acre while the small grain is between tiller and boot stage. The legumes are less likely to be injured if a small grain foliage canopy is allowed to develop before application is made. Apply the lowest gallonage possible at low pressure in order to reduce penetration of the canopy with the spray.

Consult your local authorities. Fall applications of 2,4-D in crops are not recommended. Do not forage or graze treated grain fields within two weeks after treatment with 2,4-D. Do not feed treated straw to livestock.

**CORN and SORGHUM** — Corn varieties vary in susceptibility to injury. 2,4-D sprays may cause some injury to stalks such as lodging, bending, and brittleness. Plants generally recover from lodging or bending. Stalks may remain brittle 5 to 7 days, during which time they are subject to breakage by high winds and cultivation. Avoid cultivating while this condition prevails. Injury is mostly likely when crop is growing rapidly.

Spray 1 pint of Helena 2,4-D Amine per acre as soon as majority of weeds are actively growing. Do not apply 2,4-D sprays from tasseling to dough stage. Use extension nozzles to direct sprays away from the leaves of corn and sorghum that are 8 inches or more high.

**RICE** — To control Curly Indigo, Coffee-weed and other broadleaved weeds in rice, apply Helena 2,4-D Amine at 1 to 2-1/2 pints per acre any time after rice is well tillered but before the joining or boot stage (4 to 8 weeks after emergence; or where flooded, treated between 7 and 9 weeks after seeding, when plants have emerged above water and leaves are standing erect). Rice plants are sensitive to 2,4-D in the early seedling, boot, and early heading stages. Avoid applications of Helena 2,4-D Amine during these stages of growth. Avoid drift to cotton or other 2,4-D susceptible crops.

**SUGAR CANE** — Apply Helena 2,4-D Amine at 1 to 2 quarts per acre when cane is 1 to 2 feet tall to control broadleaved weeds.

## TO CONTROL WEEDS ON NON-CROPPED AREAS

Fence rows, vacant lots, around building:

Apply sprays containing 2 to 4 pints of Helena 2,4-D Amine per acre (or 2 to 3 quarts of Helena 2,4-D Amine in 100 gallons of water) for control of most broadleaved weeds. Use higher dosage to control more resistant weeds. Sufficient spray should be used to thoroughly wet all the weed foliage. Spray when weeds are growing actively. Deep rooted perennial weeds such as Bindweed, Canada Thistle, Hoary Cress, and Poison Ivy may require 4 to 6 pints per acre, and repeat application may be necessary as new growth appears.

## TO CONTROL WEEDS ON PASTURE, GOLF COURSES, PARKS, CEMETERIES, AND LARGE TURF AREAS

Apply sprays containing 2 to 3 pints of Helena 2,4-D Amine per acre for control of most broadleaved weeds. Use higher rate where perennial broadleaved weeds are the major problems. Spray when weeds are growing actively. Seedling grasses should not be sprayed until root systems are established and sod has been formed. Some injury to clover, creeping bent, carpet grass and St. Augustine grass may occur. Keep dairy animals off treated areas for 7 days. For use in hand sprayers, mix 1-1/2 to 2 teaspoons of Helena 2,4-D Amine per gallon of water. Wet all foliage thoroughly.

E.P.A. REG. NO. 5905-72  
SN 110779-1M

E.P.A. EST. NO.

MADE IN U.S.A.

**DO NOT RE-USE THIS CONTAINER FOR ANY PURPOSE**