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Pm 23
1386-43

2,4-D Amine Weed Killer

KEEP OUT OF REACH OF CHILDREN
CAUTION

See Side Panel For Additional Precautionary Statements

ACTIVE INGREDIENT

Dimethylamine salt of
2,4-dichlorophenoxyacetic acid

INERT INGREDIENTS

Total

*Equivalent to 39.2% 2,4-dichlorophenoxyacetic acid
*Contains 3.8 pounds 2,4-D acid equivalent per gallon
*Isomer specific by AOAC Method No. 6 D31.5

Product 102
901020-2-84

EPA Reg. No. 1386-43
EPA Est. No. 1386-OH-1



UNIVERSAL COOPERATIVES, INC., MINNEAPOLIS, MN 55440

ACCEPTED
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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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Harmful if swallowed. Avoid contact with skin, eyes and clothing. Keep out of reach of children.

STATEMENT OF PRACTICAL TREATMENT

If swallowed, call a physician immediately. Give victim one or two glasses of water and induce vomiting by laughing the back of throat with finger. Repeat until vomit is clear. Do not induce vomiting or give anything by mouth to an unconscious person. If on skin, remove contaminated clothing and wash affected areas with soap and water. If in eyes, flush with water for at least 15 minutes. Call a physician immediately.

ENVIRONMENTAL HAZARDS

Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply when weather conditions favor drift from target area.

DIRECTIONS FOR USE

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

This product should be used as a water diluted spray, or may be mixed with liquid nitrogen fertilizer (see below), for selective control of susceptible weeds growing in small grain crops, corn, sorghum, beans and ornamental turf, and for non-selective control of certain weeds not in growing crops, such as roadsides, fence rows, and drainage ditchbanks.

Apply when the weeds are young and are 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. Spray 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 or 3 weeks after spraying. Retreatment of areas infested with perennial weeds may be necessary.

Considerable caution must be exercised in using 2,4-D sprays to avoid injury to crops and desirable plants. Do not apply directly to vegetables, flowers, grapes, fruit trees, ornamentals, cotton 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. Coarse sprays are less likely to drift. Do not use on creeping grasses, such as bent. Most legumes, including white clover, are usually damaged and, under some conditions, killed. Excessive amount of 2,4-dichlorophenoxyacetic acid in the soil may temporarily inhibit seed germination or plant growth.

SMALL GRAIN CROPS (Wheat, Barley, Rye, Oats)—In Wheat, Barley and Rye use $\frac{1}{2}$ to 1 $\frac{1}{2}$ pints per acre and in Oats use $\frac{1}{2}$ to 1 pint per acre to control susceptible broadleaf weeds such as mustard, ragweed, lambsquarters, cocklebur, plantain, morningglory (annual), daisy fleabane, pigweed, wild radish, buckhorn, bull thistle, burdock, dandelion, stinging nettle, sunflowers, wild garlic and wild onion. Apply in the spring after grains are well tillered (usually 4 to 8 inches tall), but before the boot stage. Do not apply during seedling stage, late jointing stage or after heading begins. Do not use on grain interplanted with legumes. Do not forage or graze treated grain fields within 14 days after treatment. Do not feed treated silage to livestock.

For improved control of wild garlic and wild onion, use 1 $\frac{1}{2}$ to 2 pints per acre. Note, however, that these higher rates may injure crop. **DO NOT USE UNLESS POSSIBLE CROP INJURY WILL BE ACCEPTABLE.**

In other special situations, to handle difficult weed problems in certain areas, such as under dry conditions especially in western area, it may be necessary to use a higher rate of 2 to 3 pints per acre in wheat, barley and rye and 1 $\frac{1}{2}$ to 2 pints per acre in oats. Again note, however, that these higher rates may injure crop. Therefore, **DO NOT USE UNLESS POSSIBLE CROP INJURY WILL BE ACCEPTABLE.**

*If considering the use of higher rates, consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

CORN—For post-emergence treatment, use 1 pint per acre to control susceptible broadleaf weeds, such as ragweed, lambsquarters, morningglory (annual), cocklebur and pigweed, listed under small grain crops. Apply when weeds are up, but still small, and corn is 4 to 16 inches tall. Corn at 4 to 5-inch stage is more resistant to injury and the broadleaf weeds are more susceptible to control than at earlier or later stages. Avoid direct spraying of growing point of corn. In corn 10 inches or more tall use drop nozzles to keep spray off corn leaves. Avoid spraying immediately after a period of hot, moist weather. Injury to corn may occur when hot, dry weather closely follows treatment. Avoid cultivation for 10 to 14 days after spraying to reduce possibility of stalk breakage. Hybrid corn should be sprayed only if the cross or 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 treatment.

Do not apply from tasseling to dough stage.

For pre-harvest treatment, after the hard dough or denting stage, apply 1 to 2 pints per acre 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.

SORGHUM—Use same rate of application as directed for post-emergence treatment of corn and apply when sorghum is in the 4 to 12-inch stage of growth to control the susceptible broadleaf weed. Precautions regarding application in corn also apply to sorghum. **DO NOT APPLY AFTER FIRST TASSELS APPEAR.**

LAWN AND ORNAMENTAL TURF—Use 1 to 1 $\frac{1}{2}$ pints per acre applied as a spray after grasses are well tillered, but before reaching the boot stage, to control most susceptible broadleaf weeds. Do not apply in the seedling or heading stage. Do not apply when grass is in boot to milk stage. Do not apply to bent and creeping grasses.

To control wild garlic and wild onion, two applications each year for 2 or more years are usually required. One application should be made during the fall period, October to December, and the other during the spring period, February to May. This treatment is likely to cause injury to legumes interplanted with grass.

RESISTANT WEEDS in Lawn and Ornamental Turf (Spot Treatment)—To control certain broadleaf weeds, such as jimsonweed, prickly lettuce, mallow, purslane, shepherd's purse, smartweed, henbit, buttercup, wild carrot, docks, pokeweed, common mullein and sheep sorrel usually require a considerably higher dosage rate. These resistant weeds usually may be controlled in localized areas or spots by applying 1 to 1 $\frac{1}{2}$ tablespoons per gallon of water when the plants are young and growing vigorously.

THIS HIGH DOSAGE RATE CANNOT BE USED WITHOUT CAUSING SEVERE INJURY, AND CONSEQUENTLY, ITS USE MUST BE EXCLUSIVELY FOR SPOT TREATMENT WHERE SUCH INJURY CAN BE TOLERATED.

Repeated treatments, if new weed growth occurs, may be necessary to maintain control.

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DIRECTIONS FOR USE (Continued)

PASTURE—To control many broadleaf weeds in pastures, meadows, and rangelands, use 2 to 3 pints per acre of 2,4-D Amine Weed Killer in sufficient water to provide for uniform application. Treat pastures when weeds are growing actively. DO NOT apply to recently seeded pastures until grass is well established. DO NOT apply when grass is in milk to boot stage. Most legumes are usually injured or killed at the rates recommended. DO NOT graze dairy animals on treated areas within 7 days of application. DO NOT apply after heading begins.

PREPARATION OF SPRAY AND APPLICATION—Above quantities of this product should be added to water in the spray tank at time of application. Agitate or stir to secure 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 8 to 10 gallons per acre have been used successfully in certain instances. When using a high 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 area regardless of the quantity of water.

SMALL QUANTITIES—For mixing and applying small quantities, use the following approximate equivalents:

Dosage per Acre	Amount per 1,000 Sq. Ft.	Dosage per Acre	Amount per 1,000 Sq. Ft.
1/2 pint	1 1/2 teaspoons	2 1/2 pint	8 1/2 teaspoons
1 pint	2 1/2 teaspoons	4 pint	3 tablespoons
2 pint	4 1/2 teaspoons	8 pint	4 1/2 tablespoons

The dosage rates applied with low-volume power sprayers in 15 gallons of water per acre may usually be applied by means of hand or knapsack sprayers in 3 to 4 gallons of water per 1,000 square feet.

CLEANING SPRAY EQUIPMENT—It is almost impossible to remove residue of 2,4-D from sprayers and spray equipment, particularly from non-metallic parts (wood, rubber, fibre), and it is advisable NOT to use the same equipment for applying other materials to plants or crops.

USE OF LIQUID NITROGEN FERTILIZER—2,4-D Amine Weed Killer may be combined with some liquid nitrogen fertilizers. However, the compatibility of 2,4-D Amine with the fertilizer must be tested before combining in the spray tank.

JAR TEST

Amount of 2,4-D Amine to add to one pint of Liquid Nitrogen Fertilizer.

2,4-D Amine Rate/Acre	Level Teaspoons of 2,4-D Amine Volume of 25 gal./acre	Level Teaspoons of 2,4-D Amine Volume of 100 gal./acre
1/2 pint	1/2 tsp.	1/2 tsp.
1 pint	1 tsp.	1 tsp.
2 pints	2 tsp.	2 tsp.
4 pints	4 tsp.	4 tsp.

The amount of herbicide to be tested, 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 Amine, as determined from the above chart, to one pint of Liquid nitrogen 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, sludge, gels, oily 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 incompatibility occurs, the use of a suitable compatibility agent may solve the problem. Run the above compatibility test, but add 1/4 teaspoon of a compatibility agent prior to adding the 2,4-D Amine. (The 1/4 teaspoon is equivalent to 2 pints per 100 gallons of liquid nitrogen fertilizer.) If the mixture is still incompatible, DO NOT USE.

TANK MIXING SEQUENCE

If the 2,4-D Amine/fertilizer mixture is compatible without the use of a compatibility agent: Fill the spray tank with half the amount of fertilizer to be used. Make a pre-mix of 1 part of 2,4-D Amine and 4 parts water. Add the pre-mix to the spray tank, 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 Amine/water pre-mix.

Follow all applicable recommendations and field application rates on the fertilizer and compatibility agent labeling, as well as the 2,4-D Amine labeling.

STORAGE AND DISPOSAL

STORAGE Do not contaminate water, food or feed by storage or disposal. Do not store at temperatures below 40° F. Do not store near fertilizers, seeds, insecticides, or fungicides.

PESTICIDE DISPOSAL Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or residue is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticides or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL 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.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is 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. Seller makes no other express or implied warranty, including any other express or implied warranty of Fitness or of Merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.