

SPECIMEN LABEL

2,4-D AMINE 4

HERBICIDE

ACTIVE INGREDIENT:

BY WT.

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic acid*.....46.8%

OTHER INGREDIENT:53.2%

TOTAL 100.0%

*Equivalent 38.9% of 2,4-Dichlorophenoxyacetic acid or 3.8 lb./gal. Isomer specific by AOAC method.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

EPA REG. NO. 42750-19-5905

NET CONTENTS:

EPA EST. NO. 42750-MO-1

4001HEDR

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC (800) 424-9300

MANUFACTURED FOR:

HELENA CHEMICAL COMPANY

225 SCHILLING BOULEVARD, SUITE 300

COLLIERVILLE, TN 38017

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Corrosive. Causes irreversible eye damage. Wear protective eyewear (goggles or face shield). May be fatal if absorbed through skin. Harmful if swallowed or inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or spray mist.

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 A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves Category A, such as butyl rubber > 14 mils, or natural rubber > 14 mils, or neoprene rubber > 14 mils or nitrile rubber > 15 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure and
- Chemical-resistant apron when cleaning equipment, mixing, or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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

If this container contains 5 gallons or more in capacity, do not open pour product from the container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

When handlers use 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 as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco 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 clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and 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. 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.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Reclose all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticides Disposal." Protect from freezing. If stored below freezing, the product must be warmed to at least 70°F and agitated before using. This does not affect the efficiency of the product.

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification.

Opened, partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container.

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.

CONTAINER DISPOSAL:

METAL CONTAINERS: Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state or local authorities.

PLASTIC CONTAINERS: Triple rinse (or equivalent), adding rinsate to spray tank. 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.

REFILLABLE CONTAINERS: If this container has been designated by the supplier as refillable, return empty container to the place of purchase.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted

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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 areas during the restricted entry interval (REI) of 48 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:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves Category A, such as butyl rubber > 14 mils, or natural rubber > 14 mils, or neoprene rubber > 14 mils or nitrile rubber > mils
- Chemical-resistant footwear plus socks
- Protective eyewear and
- Chemical-resistant headgear for overhead exposure

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 allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried.

GENERAL INFORMATION

Performance of this product may be affected by local conditions, crop varieties, and application method. User should consult local Extension Service, Agricultural Experiment or University Weed Specialists, and state regulatory agencies for recommendations in your area.

Best results are obtained when product is applied to young succulent weeds that are actively growing. The lower recommended rates will be satisfactory on susceptible annuals weeds. For perennial weeds and conditions such as the very dry areas of the western states where control is difficult, the higher recommended rates should be used. When product is used for weed control in crops, the grown stage of the crop must be considered.

Some plants and weeds, especially woody varieties, are difficult to control and may require repeat applications.

Application rates should be 1 to 5 gallons of total spray by air or 5 to 25 gallons by ground equipment unless otherwise directed. In either case, use the same amount of 2,4-D recommended per acre. For crop uses, do not mix with oil, surfactants, or other adjuvants unless specifically recommended. To do so may reduce herbicide's selectivity and could result in crop damage.

Aerial applications should be used only when there is no danger of drift to susceptible crops. Many states have regulations concerning aerial applications of 2,4-D formulations. Consult local regulatory authorities before making application. This product contains dimethylamine salt of 2,4-D, one of the least volatile forms of 2,4-D.

Because coarse sprays are less likely to drift than fine, do not use equipment (such as hollow cone small orifice nozzles) or conditions (such as high pressure) that produce such sprays.

Product should not be allowed to come into contact with desirable, susceptible plants such as beans, cotton, fruit trees, grapes, legumes, ornamentals, peas, tomatoes, and other vegetables. Product should not be used in greenhouses. Excessive amounts of this product in the soil may temporarily inhibit seed germination and all plant growth.

Users should note that herbicide treatment of public water requires a permit from appropriate state agencies in most states. Your State Conservation Department or Game and Fish Commission will aid you in securing a permit in your state.

Spray equipment used to apply 2,4-D should not be used for any other purpose until thoroughly cleaned by a suitable chemical cleaner.

Spray Preparation: Add the recommended amount of product to approximately 1/2 the volume of water to be used for spraying. Agitate well, then add the remainder of the water. Continue agitation during application until spray tank is empty.

Use in Liquid Nitrogen Fertilizer: Product may be combined with liquid nitrogen fertilizer suitable for foliar application on corn, grass, pastures, or small grains in one operation. Use product according to direction on this label for those crops. Use liquid nitrogen fertilizer at rates recommended by supplier or Extension Service Specialist. Mix the product and fertilizer according to the following instructions:

Fill the spray tank approximately 1/2 full with the liquid nitrogen fertilizer. In a separate clean container, mix the amount of product to be used with an equal amount of water. Add the product mixture to the spray tank while agitating. Add the remainder of the fertilizer while containing to agitate. Apply immediately, maintaining agitation during application until tank is empty. **DO NOT APPLY DURING COLD (NEAR FREEZING) WEATHER.** Spray mixture must be used immediately and may not be stored.

Note: Pre-mixing the product with an equal amount of water is important.

WHERE TO USE

This product is used to control broadleaf weeds in cereal crops, corn, and sorghum; orchard floors; weeds and brush in rangelands, pastures, rights-of-way, and similar noncrop uses; tree injection and for aquatic weed control.

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RECOMMENDED RATES OF PRODUCT PER ACRE**

Crop	Normal Rates (usually safe to crop)	Higher Rates for Special Situations* (more likely to injure crop)
Small grains		
Spring Postemergent (not underseeded with legumes)		
wheat, barley, rye	2/3 to 1-1/2 pints	1 to 3 pints
oats	1/2 to 1 pint	1-1/2 to 2 pints
millet	2/3 to 1-1/3 pints	2 to 3 pints
Spring Postemergent (underseeded with legumes)		
wheat, barley, oats, rye	1/4 to 1/2 pint	
Preharvest (dough stage)		
wheat, barley, oats	1 to 2 pints	2 to 3 pints
Corn (Field & Sweet)		
Preplant	1 to 2 pints	
Preemergent	2 to 4 pints	
Emergent	1 pint	1-1/2 pints
Postemergent		
up to 8 inches tall	1/2 to 1 pint	
8 inches to tasseling (use only directed spray)	1 pint	1-1/2 to 1-1/2 pints
Preharvest	1 to 2 pints	
Sorghum		
Postemergent		
6 to 8 inches tall	2/3 to 1 pint	
8 to 15 inches tall	1 pint	1-1/2 to 2 pints
(use only directed spray)		
Rice		
Preplant	1 to 2 pints	
Postemergent	1 to 2-1/2 pints	2 to 3 pints
Sugarcane		
Preemergent	4 pints	
Postemergent	4 pints	

Note: The higher rates as recommended above may be necessary to control difficult weed problems, such as dry conditions in the western states. They should not be used, however, unless possible crop injury is acceptable. Consult local Extension Service or Agricultural Experiment Station Weed Specialist for recommendations on special conditions.

*Arizona, Idaho, Montana, Oregon, Utah, Washington, Wyoming.

**If band treatment is used, base the dosage rate on the actual area sprayed.

WEEDS CONTROLLED

When used properly, product will kill or control the following, in addition to many other noxious plants susceptible to 2,4-D:

Alders	Chickory	Henbit	Pennywort	Sunflower
Alligatorweed	Cinquefoil	Hoary cross	Pepperweeds	Sweet clover
American lotus	Cockle	Honysuckle	Pigweed	Tarweed
Arrowhead	Cocklebur	Horsetail	Plantain	Tarweed
Artichoke	Coffeebean	Indigo	Poison hemlock	Thistles
Aster	Coffeeweed	Indian mallow	Pokeweed	Toadflax
Austrian fieldress	Common sowthistle	Ironweed	Pop/pea	Tumbleweed
Beggaricks	Creeping jenny	Jerusalem artichoke	Powertweed	Velvet leaf
Biden	Croton	Jewelweed	Prickly lettuce	Vervain
Bindweed (hedge, field and European)	Curly indigo	Jimsonweed	Primrose	Vetch
Bitterweed	Dandelion	Knitweed	Puncturevine	Virginia creeper
Bitter wintercress	Devil's claw	Lambquarter	Purslane	Water hyacinth
Black-eyed Susan	Dock	Locoweed	Ragweed	Water lily
Blessed Thistle	Dogbane	Lupines	Rush	Water plantain
Blue lettuce	Duckweed	Mallow	Russian thistle	Water primrose
Boxelder	Elderberry	Many-flowered aster	Sagebrush	Water shield
Broomweed	Flabane (daisy)	Marijuana	St. Johnswort	Wild carrot
Buckhorn	Fixweed	Mashedider	Sally	Wild lettuce
Bull thistle	Florida pursley	Mexicanweed	Shepherdspurse	Wild parsnip
Bullrush	Frenchweed	Morningglory	Sicklepod	Wild radish
Burdock	Galinsoga	Muskthistle	Sneezeweed	Wild rape
Bur ragweed	Goatsbeard	Mustard	Southern wild rose	Wild strawberry
Buttercup	Goldenrod	Nettle	Southwile	Wild sweet potato
Canada thistle	Gorseberry	Nygrass	Spanish needles	Willow
Carpetweed	Ground ivy	Orange hawkweed	Spatterdock	Witchweed
Catnip	Gumweed	Parrotfeather	Stinging nettles	Wormweed
Chickweed	Healall	Parsnip	Stinkweed	Yellow rocket
	Hemp	Pennygrass	Sumac	

LESS SUSCEPTIBLE WEEDS

Kochia	Poison ivy	Wild garlic
Pigweed (hybrid)	Smartweed	Wild onion

CROPS

Small grains (barley, oats, wheat, rye, millet), not underseeded with a legume: See table for recommended use rates. Spray when weeds are small after grain begins tillering but before boot stage (usually 4 to 8 inches tall). Do not apply before the tiller stage nor from early boot through milk stage. To control large weeds that will interfere with harvest or to suppress perennial weeds, preharvest treatment can be applied when the grain is in the dough stage. Best results will be obtained when soil moisture is adequate for plant growth and weeds are growing well.

Small grains (barley, oats, wheat, rye), underseeded with legumes: Apply 1/4 to 1/2 pint after grain is 8 inches tall. Do not spray grain in boot to dough stage. Do not apply alfalfa or sweet clover unless the infestation is severe and injury to these legumes can be tolerated. Preharvest treatment can be applied when the grain is in the dough stage. Best results will be obtained when soil moisture is adequate for plant growth and weeds are growing well.

Spring Planted Oats: Apply in sufficient water to give good coverage. Apply after the fully tillered stage, except during the boot to dough stage.

Fall Planted Oats: Apply after full tillering but before early boot stage. Some difficult weeds may require the higher rates of 1 to 1-1/2 pints per acre for maximum control but injury may result. Do not spray during or immediately following cold weather.

Note: Oats are less tolerant to 2,4-D than wheat or barley and more likely to be injured.

Note: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 14 days after treatment. Do not feed treated straw to livestock.

For Emergency Weed Control in Wheat: Perennial broadleaf weeds-Apply 3 pints per acre when weeds are approaching bud stage. Do not spray grain in the boot to dough stage. The 3 pint per acre application can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatment is suggested to minimize the extent of crop injury.

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Wild Garlic in Grain Stubble: To prevent new growth of garlic following harvest, apply 2 to 3 quarts of product per acre to stubble. Do not forage for 14 days following application. Do not plant any crop for 3 months after treatment or until 2,4-D has disappeared from soil.

Corn: See table for recommended use rates.

Preplant: To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 7 to 14 days before planting. Do not use on light, sandy soil or where soil moisture is inadequate for normal weed growth. Use high rate for less susceptible weeds or cover crops such as alfalfa.

Preemergent: Apply product from 3 to 5 days after planting but before corn emerges. Do not use on very light, sandy soils. Use the higher rates on heavy soils. Plant corn as deep as practical.

Postemergent: Best results are usually obtained when weeds are small and corn is 5 to 18 inches tall. When corn is over 8 inches tall, use drop nozzles to keep spray off foliage as much as possible. Do not apply from tasseling to dough stage. If corn is growing rapidly and temperature and soil moisture are high, use ½ pint per acre rate to reduce possibility of crop damage. Delay cultivation for 8 to 10 days to prevent stalk breakage due to temporary brittleness caused by 2,4-D. Application rates of up to 1 pint per acre may be used to control some hard-to-control weeds. However, the possibility of injury to the corn is increased.

Do not use with atrazine, oil or other adjuvants. Since the tolerance to 2,4-D of individual hybrids varies, consult your speed supplier, local Extension Service, Agricultural Experiment Station, or University Weed Specialist Information.

Preharvest: After the hard dough or denting stage, apply 1 to 2 pints of product per acre by air or ground equipment 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.

Note: Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.

Rice (except California): See table for recommended use rates. For preplant use, apply 4 or more weeks prior to planting. For postemergent use, apply in the tillering stage of rice development at the time of first joint development (first to second green ring) usually 6 to 9 weeks after emergence. Do not apply after panicle initiation, after rice internodes exceed ½ inches, at early seedling, early panicle, boot, flowering, or early heading growth stages.

Note: Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying consult local Extension Service or University Specialists for appropriate rates and timing of 2,4-D sprays.

Sorghum (Milo): See table for recommended rate. Apply to sorghum when crop is 4 to 12 inches high with secondary roots well established. Use drop nozzles when crop is over 10 inches high. Do not apply from flowering to dough stage. Rates of up to 1 pint per acre may be used to control some hard-to-control weeds. However, the chance of crop injury increases with the higher rates. Do not use with oils. Use lower rates if conditions of high temperature and high soil moisture exist.

Soybeans (Preplant Only)- For Use in Crop Residue Management Systems: Apply 1 pint not less than 15 days prior to planting soybeans or 2 pints not less than 30 days prior to planting. Apply to postemergent weeds when small, actively growing, and free of stress caused by extremes in climatic conditions, diseases, or insect damage. The response of individual weed species is variable. Consult your local county agent or state Agricultural Extension Service or crop consultant for advice. Use the higher rate on larger weeds and when perennials are present. (See **WEEDS CONTROLLED** below.)

Apply using air or ground equipment in sufficient gallonage to obtain adequate coverage of weeds. Use 2 or more gallons of water per acre in aerial equipment and 10 or more gallons of water per acre in ground equipment.

WEEDS CONTROLLED

Alfalfa*	Horseweed or maretail	Ragweed, giant
Bindweed*	Ironweed	Shepherdspurse
Bullnettle	Lambsquarter, common	Smartweed, Pennsylvania*
Bittercress, smallflowered	Lettuce, prickly	Sowthistle, annual
Buttercup, smallflowered	Morningglory, annual	Spottedwell
Carolina geranium	Mousetail	Thistle, Canada*
Conquerofoil, common & rough	Mustard, wild	Thistle, bull
Clover, red*	Onion, wild*	Velvetleaf
Cocklebur, common	Pennycress, field	Vetch, hairy*
Dandelion*	Peppergrass*	Virginia copperleaf
Dock, curly	Plantains	
Evening primrose, cutleaf	Purslane, common	*Partially controlled
Garlic, wild*	Ragweed, common	

After applying, plant soybean seed as deep as practical or at least 1-1/2 to 2 inches deep. Adjust the planter press wheel, if necessary, to ensure that planted seed is completely covered.

If desired, this product may be applied preplant to soybeans in tank mixtures with other herbicides such as **POAST®**, **POAST® PLUS**, **GLY STAR™ ORIGINAL OR ROUNDUP®**, **ROUNDUP D-PAK®**, **HONCHO®**, **GRAMOXONE®**, **EXTRA**, **PROWL® DG**, **PROWL® 3.3 EC**, **PURSUIT® PLUS**, **SCEPTOR® 70 DG**, **SQUADRON®**, and others that are registered for preplant soybean use.

Compatible crop oil concentrates, agricultural surfactant, and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of 2, 4-D on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on all labels of adjuvants or fertilizers mixed with this product.

Note: Unacceptable injury to soybeans planted in treated fields may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.

Not registered for use in California.

RESTRICTIONS AND LIMITATIONS FOR USE IN SOYBEANS

Do not apply this product prior to planting soybeans if you are not prepared to accept the results of soybean injury including possible loss of stand and yield.

Do not use on low organic sandy soils (less than 1.0%)

Do not apply this product when weather conditions such as temperature, air inversions, or wind favor drift from treated areas to susceptible plants.

Do not mow or cultivate weeds prior to treating with this product as poor control may result.

Do not feed treated hay, forage, or fodder or graze treated soybeans to livestock. Do not feed or graze treated cover crops to livestock.

Only one application of this product may be made prior to planting soybeans per growing season, regardless of application rate used.

Do not replant fields treated with this product in the same growing season with crops other than those labeled for 2, 4-D use.

Sugarcane: See table for recommended rate. Apply as a pre- or post-emergent spray in the spring after canes emerge and through layby. Consult your local Agricultural Experiment of Extension Service Weed Specialists on specific use of this product to control broadleaved and grass weeds.

Apple, Pear, Stone Fruit, & Nut Orchards & Pistachios: To control annual broadleaf weeds on the orchard floor, apply 3 pints per acre using coarse sprays and low pressure in sufficient volume of water to obtain thorough wetting of weeds. Treat when weeds are small and actively growing. Do not use on light, sandy soil. NOTE: Do not apply (1) to bare ground as injury may result, (2) to newly established or young orchards. Trees must be at least 1 year old and in vigorous condition, (3) during bloom, (4) more than twice a year, (5) immediately before irrigation and withhold irrigation for 2 days before and 3 days after treatment. Also, do not allow spray to drift onto or contact foliage, fruit, stems, trunks of trees or exposed roots, as injury may result. Do not graze or feed cover crops from treated orchards. Do not harvest stone fruit within 40 days of application or nuts within 60 days of application. For apple and pear only, (1) do not exceed 2.0 pounds acid equivalent per acre per application, (2) do not apply more than two applications per season, (3) do not retreat for 75 days, and (4) do not harvest within 14 days of application.

TURF USES

Use Requirements for Turf Including Sod Farms and Grass Seed Crops Restricted

Entry Interval: When used on sod farms or grass seed crops, follow PPE and reentry instructions in the "Agricultural Use Requirements" section of this label. For use on other turf areas, follow reentry instructions in the "Non-Agricultural Use Requirements" section.

Weed Control in Sod Farms (except California): Use 1 to 3 quarts per acre in the amount of water needed for uniform application. Treat when weeds are young and growing well. Usually 2 quarts per acre will provide adequate weed control. Do not use on dichondra or other herbaceous ground covers. Do not use on creeping grasses such as bent except for spot treating nor on freshly seeded turf until grass is well established. Reseeding should be delayed following treatment. With spring application, reseed in the fall; with fall application, reseed in the spring. Legumes are usually damaged or killed. Deep-rooted perennial weeds such as bindweed and Canada thistle may require repeated applications.

Grass Seed Crops: Apply 1 to 4 pints of product per acre in the spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seedling grass only after the five leaf stage, using ¾ to 1 pint per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4 pints per acre can be used to control hard-to-control annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth. Do not use on Bent unless injury can be tolerated. Do not graze dairy cattle within 7 days of application.

Ornamental Turf such as lawns, golf courses, cemeteries, and parks: Apply 2 to 4 pints on annual broadleaf weeds and 4 pints on biennial and perennial broadleaf weeds. Use enough water to give good coverage. Treat when weeds are young and actively growing. Perennial weeds should be near the bud stage but not flowering at application. Do not use on susceptible Southern grasses such as St. Augustine. Do not apply to newly seeded areas until grass is well established. Bentgrass, clover, legumes, and dichondra may be injured by this treatment. The maximum number of broadcast applications per treatment site is 2 per year.

Grasses in Conservation Reserve Program Areas: To control or suppress annual broadleaf weeds, apply when weeds are actively growing. Use ½ to 1 pint per acre when weeds are small. Use higher rates on older weeds. Excessive injury may result if applied to young grasses with fewer than 6 leaves or prior to grasses being well established. To control or suppress biennial and perennial broadleaf weeds in established

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grasses, apply at a rate of 1 to 2 quarts per acre. Apply to actively growing weeds. Treat when biennial weeds are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage.

Note: Suggest at least 2 gallons of water per acre by air and 5 gallons of water per acre by ground. Do not harvest or graze treated Conservation Reserve Program Areas. Do not apply to grasses in the boot to dough stage if grass seed production is desired.

Fallow Land: On established perennial species such as Canada thistle and Field bindweed, apply up to 3 quarts of product per acre. For annual broadleaf weeds, apply 1 to 2 quarts per acre. Do not plant any crop for 3 months after treatment or until 2, 4-D has disappeared from soil.

Established Pasture and Rangelands: Use 1 to 4 pints of product in sufficient water to give good coverage to one acre depending on type of weeds and stage of growth. Use only on established stands of perennial grasses. Do not use on bentgrass, alfalfa, clover, or other legumes. Do not use from early boot to milk stage where grass seed production is desired. Do not graze dairy cattle within 7 days of application. Do not apply this product within 30 days of cutting grass for hay. Remove meat animals from treated areas 3 days prior to slaughter.

In newly established hybrid Bermudagrass, Pangolagrass, and stargrass (*Cynodon spp.*), use 1.5 to 3 pints of 2,4-D Amine 4 per acre to control or suppress weeds after planting vegetative propagules (stolens) of hybrid Bermudagrass. In addition to those weeds listed in the WEEDS CONTROLLED section of this label, this rate of 2,4-D Amine 4 will control or suppress annual sedges, broadleaf signalgrass, crabgrass, and Goosegrass. Apply this product at the germinating stage of weeds for best results. Under favorable conditions, this is usually 7-10 days after planting these grasses. Reduced control can be expected if weeds are allowed to reach 1-inch in height before application or if germination of weeds occurs 10 days after application.

When perennial weeds are reaching maturity, mowing and allowing some regrowth will enhance control. Difficult to control weeds and brush may require repeat applications. For pasture renovations, wait 2 weeks per pint of 2,4-D Amine 4 per acre before interseeding or injury may occur.

Control of Southern Wild Rose: On roadsides and fencerows, use 1 gallon of product plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water and spray thoroughly as soon as foliage is well developed. Two or more treatments may be required. On rangeland, apply a maximum of 4 pints of product per acre per application. Do not graze dairy animals on treated areas within 7 days after application.

General Weed Control: (Airfield, Roadsides, Vacant Lots, Drainage Ditch Banks, Fence Rows, Industrial Sites and similar areas): Use 1 to 3 quarts of product per acre. Usually 2 quarts per acre will give adequate control. Do not use on herbaceous ground covers or creeping grass such as Bent. Legumes will usually be damaged or killed. Deep-rooted perennials may require repeat applications. Do not use on freshly seeded turf until grass is well established. Delay reseeding for 3 months or until 2,4-D has disappeared from soil.

Rights-of-Way: Apply up to 2 gallons of product per acre for the control of perennial broadleaf weeds and susceptible woody species. For less susceptible perennial broadleaf weeds and difficult to control woody species, use a combination of 2 gallons of product plus 1 to 4 quarts of Garlon® 3A herbicide per acre. For ground application, apply in 20 to 400 gallons of water, depending on the height of the weeds and brush. Use the higher volumes of up to 400 gallons per acre for dense brush 6 feet tall or higher. For aerial application, use 10 to 30 gallons per acre total spray volume.

Woody Plant Control: To control woody plants susceptible to 2,4-D, such as Alder, Buckbrush, Elderberry, Sumac, and Willow on non-crop areas, use 2 to 3 quarts of product per acre in 100 gallons of water. Wet all parts of the plants thoroughly, including stem and foliage, to the point of runoff. Higher volumes of up to 400 gallons per acre are necessary where the brush is very dense and over 6 to 8 feet high. Applications are more effective when made on actively growing plants. Treatment should not be made during time of severe drought or in early fall when leaves lose their green color. Hard-to-control species may require re-treatment next season.

Poplar/Cottonwood Trees Grown for Pulp-Broadleaf Weed Control: 2,4-D Amine 4 may be applied through wick applicators or conventional ground sprayers (excluding irrigation systems). Do not allow 2,4-D Amine 4 to contact leaves of the tree. Use ½ pint to 3 pints per acre prior to planting or after planting. Two quarts or more of a spreader-activator per 100 gallons of spray solution may be added to improve herbicide performance. Accord® may be mixed with 2,4-D Amine 4 to increase weed control.

Tree Injection: For the control of unwanted hardwoods such as elm, oak, hickory, and sweet gum in forest and non-crop areas, apply undiluted product by injecting 1 ml through the bark, using one injection of trunk diameter measured at breast height (4-1/2 feet). For harder to control species (ash, maple, dogwood), use 2 ml of undiluted product per injection. All injections should be as near the root collar as possible and should be evenly spaced around the trunk. Injections may be made at any time of the year but are most effective during the growing season. Maples should not be treated during the spring sap rise.

No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

For Dilute Injection: Mix 1 gallon of product in 19 gallons of water for dilute injections.

AQUATIC APPLICATIONS

Disclaimer: Always refer to the label on the product before using Helena or any other product.

Weeds and Brush on Irrigation Canal Ditchbanks: Seventeen Western States: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming. For control of annual and perennial broadleaf weeds, apply 1 to 2 quarts of product per acre in approximately 20 to 100 gallons of total spray. Treat when weeds are young and actively growing before the bud or early bloom stage. For harder to control weeds, a repeat spray may be needed after 3 to 4 weeks for maximum results, using the same rates.

Apply no more than 2 treatments per season. For woody brush and patches of perennial broadleaf weeds, mix one gallon of product in 150 gallons of water. Wet foliage thoroughly, using approximately 1 gallon of spray solution per square rod.

Spraying Instructions: Low pressure (10 to 40 psi) power spray equipment should be used and mounted on a truck, tractor, or boat. Apply while traveling upstream to avoid accidental concentration of chemical into water. Spray when the air is calm, 5 mph or less. Do not use on small canals (less than 10 CFS) where water will be used for drinking purposes.

Boom spraying onto water surface must be held to a minimum and no cross-stream spraying to opposite banks should be permitted. When spraying shoreline weeds, allow no more than 2-foot overspray onto water with an average of less than 1-foot overspray to prevent introduction of greater than negligible amounts of chemical into water.

Do not allow dairy animals to graze on treated areas for at least 7 days after spraying. Water within treated banks should not be finished.

For Aquatic Weeds In Lakes, Ponds, Reservoirs, Bayous, Canals, Streams, Drainage Ditches, and Marshes: Use 2-1/2 to 4-1/2 pints of product in 50 to 100 gallons of water per acre. Spray to wet foliage thoroughly. Application should be made when leaves are fully developed, above the water line, and plants are actively growing. Your 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 ½ of a lake or pond in any one month because excessive decaying vegetation may deplete oxygen content of water and kill fish. Do not contaminate water intended for irrigation purposes except as indicated in directions for use on irrigation ditchbanks.

Perennial and other hard-to-control weeds may require a repeat application to give adequate control.

Potable Water: Delay the use of treated water for domestic purposes for a period of three weeks or until such time as an approved assay shows that the water contains no more than 0.1 ppm 2,4-D Amine 4.

Water Hyacinth (*Eichornia crassipes*): 2,4-D Amine 4 will control water hyacinth with surface and air applications. Use 2 to 4 quarts (4 lb. acid equivalent per gallon) per acre. Spray the weed mass only. Use 4 quarts when plants are matured or when the weed mass is dense. Apply when water hyacinth plants are actively growing. Repeat as necessary to kill regrowth and hyacinth plants missed in the previous operation.

Surface Application: Use power sprays operated with a boom or spray gun mounted on a boat, tractor or truck. Thorough wetting of foliage is essential for maximum control. Use 100 to 400 gallons per acre of spray mixture. Special precautions such as the use of low pressure, large nozzles and thickening agents should be taken to avoid spray drift in areas of sensitive crops. For DIRECTA-SPRA™ operation use 2,4-D Amine 4 with 1 pint of drift control agent in 50 to 100 gallons of water. For other applications, follow the drift control agent label for mixing directions.

Air Application: Use drift control spray equipment or thickening agents mixed into the spray solution. Apply 1 gallon per acre of 2,4-D Amine 4 through standard boom systems with a minimum of 5 gallons of spray mix per acre. For MICROFOIL® drift control systems, apply 2,4-D Amine 4 in 12 to 15 gallons spray mix per acre.

2,4-D Acid Equivalent	½ lb.	1 lb.	2 lbs.	3 lbs.	4 lbs.
2,4-D Amine 4	1 pt.	2 pts.	2 qts.	3 qts.	4 qts.

Water Milfoil (*Myriophyllum spicatum*): For Eurasian Water Milfoil in programs conducted by the Tennessee Valley Authority in dams and reservoirs of the TVA system. 2,4-D Amine 4 will control water milfoil with surface, subsurface and air applications.

How to Use: To control water milfoil when less than 5 gallons of concentrate per acre is recommended, dilute the concentrate with water to apply a minimum of 5 gallons of spray mix per acre. Do not treat within ½ miles of potable water intakes. Shoreline should be treated by sub-surface injection applied by boat to avoid aerial drift. Do not apply when weather conditions favor drift from target area. Do not contaminate water by cleaning of equipment washwaters.

Open Water Areas: To reduce contamination and prevent undue exposure of fish and other aquatic organisms, do not treat water areas that are not infested with aquatic weeds.

Amount To Use: Apply 2-1/2 to 10 gallons of 2,4-D Amine 4 per acre. The higher rate is used in areas of greater water exchange. These areas may require a repeat application.

When to Apply: For best results, apply in spring or early summer when milfoil start to grow. This timing can be checked by sampling the lake bottom in areas heavily infested with weeds the year before.

Subsurface Application: Apply 2-1/2 to 10 gallons of 2,4-D Amine 4 per acre as a concentrate directly into the eater through boat mounted distribution systems.

Surface Application: Apply 2-1/2 to 10 gallons of 2,4-D Amine 4 per acre in a minimum spray volume of 5 gallons mix per acre.

SPECIMEN LABEL

Air Application: Use drift control spray equipment or thickening agents mixed into the spray solution. Apply 2-1/2 to 10 gallons per acre of 2,4-D Amine 4 through standard boom system with a minimum of 5 gallons of spray mix per acre. For MICROFOIL® drift control spray systems apply 2,4-D Amine 4 in 12 to 15 gallons of spray mix per acre.

CONDITIONS OF SALE AND WARRANTY

The **DIRECTIONS FOR USE** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of **ALBAUGH, INC.** or the Seller. All such risks shall be assumed by the Buyer.

ALBAUGH, INC., its Supplemental Distributors and the Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the **DIRECTIONS FOR USE** subject to the inherent risks referred to above.

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