

Reg # 5905-93

PM-23

193

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. Contains petroleum solvent.

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 vegetation.

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. 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 2,4-D in the soil may temporarily inhibit seed germination or plant growth. Obtain necessary approval and/or permits for use in States or areas where required. Helena 2,4-D LV Ester 6 exposed to sub-freezing temperatures should be warmed to at least 40° F. and mixed thoroughly before using.

COMBUSTIBLE: Do not store near heat or open flame.

FOLLOW DIRECTIONS CAREFULLY

Always mix with water or oil (Heater Oil or Diesel Fuel recommended) so as to apply the recommended amount of Helena 2,4-D LV Ester 6 per acre in the amount of material necessary to cover an acre 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 nozzles to produce a coarse, wetting spray of large droplets.

For best results apply 2,4-D sprays when soil and climatic conditions are conducive to rapid growth. This product is applied when temperatures range from 50° to 85°; results may be unsatisfactory below 65° and above 85°.

It is 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.

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

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 killed when in bud or in early bloom stage of growth.

WHEAT, OATS, BARLEY, and RYE — 2,4-D sprays applied during seeding stage may reduce yields. When crop plants are tillering (stooling), use 1/3 to 2/3 pints of 2,4-D LV Ester 6 per acre, and a maximum of 1/4 pint per acre when fully tillered (stooled). Sprays containing 3/4 to 1 pint per acre may be applied as an emergency weed control measure when seed in heads is past dough stage. Sprays applied after early boot stage and up to the dough stage may reduce yields. Do not forage or graze treated grain fields within two weeks after treatment with 2,4-D. Do not feed treated straw to livestock. Fall Applications are not recommended.

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 of 2,4-D LV Ester 6 to use	1-1/3 pts.	1 pt.	2/3 pt.	1/2 pt.	1/3 pt.	1/6 pt.

BEST AVAILABLE COPY

NET CONTENTS

U.S. GALLONS



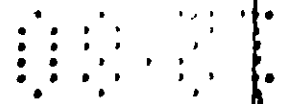
2,4-D LV I

CAUTION KEEP OUT OF REACH SEE OTHER CAUTION

ACTIVE INGREDIENTS (By Weight)
*Isooctyl ester of 2,4-Dichlorophenoxyacetic
INERT INGREDIENTS

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

DO NOT RE-USE THIS CONTAIN



HELENA CHEMICAL

293



2,4-D LV ESTER 6

AMOUNTS OF

AIRPLANE APPLICATION — Water — Dilute water and apply per acre.

OR — Dilute recommended amount in 1 gal. **GROUND SPRAYERS** — Dilute recommended amount of water required will depend upon the amount necessary for best results.

CORN and SORGHUM — 2,4-D sprays may condition of brittleness may last 6 to 7 days, cultivation. Avoid cultivating while this condition is most susceptible to injury during periods of 4 to 12 inches tall. Pre-emergence sprays are Pre-emergence — On loose and finer textured Puratane can be controlled with 3/4 to 1-1/3 gal. not treat corn planted in sandy soil. Heavy result in some early crop stunting. To reduce band spraying (14 inch band with 48 inch as Post-emergence — Apply 1/3 pint of Helena actively growing, but do not apply while corn sprays away from the leaves of corn and sorghum. (See early where low volatile ester forms)

To control Coffeebean, Curly Indigo, Redtop, Water Hyacinth, and Smartweed in rice, apply rice is well tillered but before the jointing or 6 to 7 and 8 weeks after seeding when plants have sensitive to 2,4-D in the early seedling, boot and during these stages of growth. Avoid drift to **ESTABLISHED PASTURES, FIELD and RANGE** leaved weeds use 2/3 to 1-1/3 pints per acre. Apply in sufficient water for uniform coverage while they are small. Repeat if new weeds appear.

For perennial weeds such as Bindweed, Carrot, Helena 2,4-D LV Ester 6. In general, spray applications for two or more successive years.

Keep dairy animals off treated areas for 7 days to boot to milk stage. Do not mow grass within buffalo and St. Augustine grasses are susceptible treatment.

TO CONTROL WEEDS IN PASTURES, PARKS, AND

Apply sprays containing 1-1/3 pints of Helena all the weed foliage thoroughly. Deep rooted Poison Ivy require 1-1/3 to 2-2/3 pints appears.

EMERGENT and MARGINAL AQUATIC WEEDS Lotus, Pickerelweed, Smartweed, Spatterdock Helena 2,4-D LV Ester at 2/3 to 2-2/3 pints (1 treatment, mix 3 ounces Helena 2,4-D LV Ester stages of weeds and repeat as necessary on solution may be advisable when application is made.

To control Burdock, Cattail, Sweetflag, Burdock in 150 to 300 gallons Kerosene per acre. (For Kerosene.) Thoroughly spray all foliage before drift on 2,4-D susceptible crops.

Treatment of aquatic weeds can result in oxygen suffocation. Therefore, to minimize this hazard, wait 10 to 14 days between treatment. Begin to move into untreated areas. Consult your state for more information.

TO CONTROL WEEDS IN

BRUSH — Sprays containing 1-1/3 to 2-2/3 pints can be used on such plants as Poison Ivy, Sumac, full leaf. Cover vegetation completely. Such plants successfully sprayed by airplane, using spray application if new growth appears. Use Helena

LARGE TREES — On unwanted Wild Cherry containing 1-1/3 to 2-2/3 pints of Helena 2,4-D LV Ester. If growth is above 5 to 6 feet cut close to the trunk. Helena 2,4-D LV Ester 6 in 100 parts of kerosene. Small quantity usage — Thoroughly mix 1 to 2 pints of Helena 2,4-D LV Ester 6 in 100 parts of kerosene or compressed air type sprayer and apply to trunk.

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

ACTIVE INGREDIENTS (By Weight)

*Isooctyl ester of 2,4-Dichlorophenoxyacetic acid	88.9%
INERT INGREDIENTS	11.1%
Total	100.0%

*2,4-Dichlorophenoxyacetic Acid equivalent 59.0% — 5.64 lbs. per gallon.
Isomer specific by AOAC method 6.D01-5.

ACCEPTED
NOV 14 1980
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the registration of Helena 2,4-D LV Ester 6, EPA Reg. No. 5905-93

DO NOT RE-USE THIS CONTAINER FOR ANY PURPOSE

E.P.A. REG. NO. 5905-93

SN 110779-2M



HELENA CHEMICAL COMPANY

BEST AVAILABLE COPY



ESTER 6

AMOUNTS OF SPRAY MIXTURE TO APPLY

AIRPLANE APPLICATION — Water — Dilute recommended amount of Helena 2,4-D LV Ester 6 in 3 to 5 gallons of water and apply per acre.

OR — Dilute recommended amount in 1 gallon of Heater Oil or Diesel Fuel 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.

CORN and SORGHUM — 2,4-D sprays may cause injury to stalks such as lodging, bending, and brittleness. The condition of brittleness may last 6 to 7 days, during which time stalks are subject to breakage by high winds and cultivation. Avoid cultivating while this condition prevails. Plants generally recover from lodging or bending. Crops are most susceptible to injury during periods of rapid growth. **SORGHUM** may be seriously injured — spray only when 4 to 12 inches tall. Pre-emergence sprays are not recommended.

Pre-emergence — On loam and finer textured soils, annual grasses, and some tolerant broadleaved weeds such as Purslane can be controlled with 3/4 to 1-1/3 quarts of Helena, 2,4-D LV Ester 6 applied before corn emergence. Do not treat corn planted in sandy soil. Heavy rains after treatment may cause some injury to germinating seeds and result in some early crop stunting. To reduce this risk plant corn one inch deeper than normal (2-1/2 to 3 inches). For band spraying (14 inch band with 40 inch corn rows) use 1/3 dosage listed.

Post-emergence — Apply 1/3 pint of Helena 2,4-D LV Ester 6 per acre. Spray as soon as majority of weeds are actively growing, but do not apply while corn is in the 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 (use only where law volatile ester formulations of 2,4-D are recommended by state and local authorities) — To control Coffeebean, Curly Indigo, Redstem, Duckweed, Spikerush, Umbrella, Sedge, Gooseweed, Arrowweed, Water Hyacinth, and Smartweed in rice, apply Helena 2,4-D LV Ester 6 at 2/3 to 1-1/2 pints per acre any time after rice is well tillered but before the jointing or boot stage (4 to 8 weeks after emergence; or where flooded, treat 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 LV Ester 6 during these stages of growth. Avoid drift to cotton or other 2,4-D susceptible crops.

ESTABLISHED PASTURES, FIELD and RANGE GRASSES — For control of most annual and many perennial broadleaved weeds use 2/3 to 1-1/3 pints per acre of Helena 2,4-D LV Ester 6 depending on the susceptibility of weeds. Apply in sufficient water for uniform coverage of weeds. Use the lower rate for easy to kill annual weeds and apply while they are small. Repeat if new weeds appear. Either spring or fall applications may be made.

For perennial weeds such as Bindweed, Canada Thistle, St. Johnswort, and Garlic use 1-1/3 to 2-2/3 pints per acre of Helena 2,4-D LV Ester 6. In general, spray spring weed growth to bud stage and again on fall regrowth. Repeat applications for two or more successive years may be needed to control weeds.

Keep dairy animals off treated areas for 7 days after treatment. Do not spray seedling grass, nor white grass in boot to milk stage. Do not mow grass within two days before or following treatment. In some areas bent, carpet, buffalo and St. Augustine grasses are susceptible to injury. Most legumes will be killed or injured with these rates of treatment.

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

Apply sprays containing 1-1/3 pints of Helena 2,4-D LV Ester 6 per acre for control of most broadleaved weeds. Wet all the weed foliage thoroughly. Deep rooted perennial weeds such as Bindweed, Canada Thistle, Hoary Creech, and Poison Ivy may require 1-1/3 to 2-2/3 pints per acre, and repeat applications may be necessary as new growth appears.

EMERGENT and MARGINAL AQUATIC WEEDS — To control Arrowweed, Creeping Water Primrose, Water Lily, Lotus, Pickereweed, Smartweed, Spatterdock, and Waterwillow in ponds, lakes and drainage ditch banks apply Helena 2,4-D LV Ester 6 at 2/3 to 2-2/3 pints per acre in sufficient water to thoroughly spray all foliage. For spot treatment, mix 3 ounces Helena 2,4-D LV Ester 6 per gallon of water. Apply first spray before bud or heading stage of weeds and repeat as necessary on regrowth. The addition of a surfactant or wetting agent to the spray solution may be advisable when application is made on more mature plants.

To control Bulrush, Cattail, Sweetflag, Buttonbrush, and Willow, apply 2/3 to 2-2/3 pints Helena 2,4-D LV Ester 6 in 150 to 300 gallons Kerosene per acre. (For spot treatment mix 6 ounces Helena 2,4-D LV Ester 6 per gallon of Kerosene.) Thoroughly spray all foliage before seed is formed and repeat as necessary on regrowth. Avoid spray drift on 2,4-D susceptible crops.

Treatment of aquatic weeds can result in oxygen loss from decomposition of dead weeds. This loss can cause fish suffocation. Therefore, to minimize this hazard treat 1/3 to 1/2 of the water area in a single operation and wait at least 10 to 14 days between treatment. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult your state fish and game agency before applying this product.

TO CONTROL WOODY PLANTS (FENCEROWS — PASTURES)

BRUSH — Sprays containing 1-1/3 to 2-2/3 pints of Helena 2,4-D LV Ester 6 in 50 to 100 gallons of water per acre can be used on such plants as Poison Ivy, Sumac, Poison Oak, Wild Grape, Sage Brush, and tree regrowth, when in full leaf. Cover vegetation completely. Such plants as Sage Brush that occur abundantly over large areas have been successfully sprayed by airplanes, using sprays containing 1-1/3 to 2-2/3 pints in 1 to 2 gallons of oil per acre. Repeat application if new growth appears. Use Helena Brush Killer for general brush control.

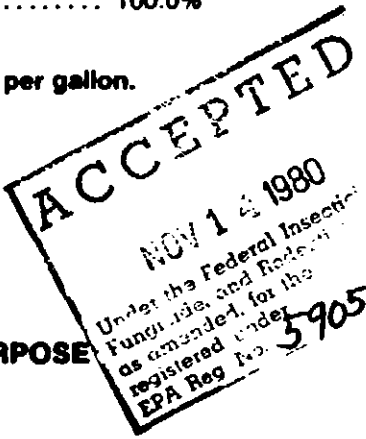
LARGE TREES — On unwanted Wild Cherry, Buck Brush, Willow, Cottonwood, and certain others, use spray containing 1-1/3 to 2-2/3 pints of Helena 2,4-D LV Ester 6 in 100 gallons of water and spray the leaf area thoroughly. If growth is above 5 to 6 feet cut close to the growth and spray the stump thoroughly with a solution of 3 parts of Helena 2,4-D LV Ester 6 in 100 parts of kerosene or fuel oil.

Small quantity usage — Thoroughly mix 1 to 1-1/2 teaspoons of Helena 2,4-D LV Ester 6 in 1 gallon of water. Use a backpack or compressed air type sprayer and apply sufficient spray to wet the weed foliage.

EACH OF CHILDREN
TION STATEMENTS ON SIDE PANEL.

actic acid	88.9%
.....	11.1%
Total	100.0%

ivalent 59.0% — 5.64 lbs. per gallon.
AC method 6.D01-5.



AINER FOR ANY PURPOSE

E.P.A. REG. NO. 5905-93 E.P.A. EST. NO. MADE IN U.S.A.

SN 110779-2M

