



DALAPON

GRASS KILLER

ACCEPTED

11-20-72

UNDER THE SUPERVISION OF THE
FEDERAL BUREAU OF INVESTIGATION
FOR THE CONTROL OF PESTICIDES
REGISTRATION NO. 5905-200

ACTIVE INGREDIENTS:

Sodium salt of dalapon
(2,2-Dichloropropionic Acid) 85%
[DALAPON (2,2-Dichloropropionic
Acid) equivalent 74%]

INERT INGREDIENTS: 15%
100%

CAUTION

KEEP OUT OF REACH OF CHILDREN
Read Complete Precautions On Side Panel

READ ENTIRE LABEL BEFORE USING DALAPON

GENERAL INFORMATION

Use DALAPON for controlling all annual grasses such as crabgrass, water grass and foxtail; established perennial grasses such as quackgrass, bluegrass, paragrass, bermudagrass, johnsongrass and phragmites; and cattails. DALAPON works best as a foliage spray, although it may also be absorbed through plant roots. It may be used in combination with herbicides such as 2,4-D, and dinitro pre-emergence weed killers to control grasses and broad leaved weeds and woody plants.

Apply DALAPON when grasses are growing vigorously but before seed stalks develop. Spray thoroughly and uniformly. Several weeks may be required for maximum effect. Repeat application as needed. Because of limited soil persistence, new seedling grasses may invade a treated area. Retreat with DALAPON or cultivate. If grass is not growing well, it is overly mature or suffering from drought or cold weather results may be poor.

DIRECTIONS

IMPORTANT: Read these entire Directions and Conditions of Sale, including the Warranty and Limitation of Damages provision, before using DALAPON grass killer.

CONDITIONS OF SALE: The Directions for Use reflect the opinion of experts based on tests of effectiveness, of toxicity to plants and laboratory animals and of residues on or in food and feed under normal conditions of use. However, because of the wide range of conditions under which this product may be used, even though label directions are followed, it is impossible to eliminate all risks associated with its use because of abnormal conditions beyond the control of the seller. Helena Chemical Company and the Seller offer, and the Buyer uses this product subject to the understanding that the Buyer assumes all such risks.

IMPORTANT: Mixing: Have the spray tank at least half full of water before adding DALAPON. Add DALAPON slowly, stirring to dissolve it completely. Use enough water (10 to 40 gallons per acre) for good spray coverage. DALAPON contains a wetting agent which is necessary and adequate for many applications with certain perennial grasses that are difficult to kill with low water rates of DALAPON. For most other applications, use a wetting agent at 2 to 3 pints per 100 gallons of spray.

SUGARCANE: Using DALAPON as a pre-emergence or post-emergence to control such grasses as johnson, bermuda and alexander. Use the following table for rates and limitations:

RATES	LIMITATIONS
3 1/2 lbs./acre	Use restricted to Florida. Postemergence directed spray in spring before close-in. Do not apply within 5 months before harvest.
8 3/4 lbs./acre	Use restricted to Florida. Spot treatment. Spray to wet in spring before close-in. Do not apply more than 120 gallons spray per acre. Do not apply within 5 months before harvest.
3 lbs./acre	Use restricted to Hawaii. Post or post ratoon treatment as grass growth warrants. Repeat 2-3 times prior to close-in. Do not spray sugarcane foliage.
8 3/4 lbs./acre	Use restricted to Hawaii. Spot treatment. Spray to wet. Apply only to infested areas. Do not apply more than 14.9 lbs. acid during a 24-36 month crop cycle. Do not spray sugarcane foliage.
2 1/4 lbs./acre	Use restricted to Louisiana. Plant Cane: Postemergence ground application in the spring (prior to May 20). Repeat 2-3 weeks after first application.
1 lb./acre	Use restricted to Louisiana. Plant Cane: Postemergence air application in the spring (prior to May 20). Repeat 2-3 weeks after first application.
4 3/4 lbs/acre	Use restricted to Louisiana. Stubble Cane: Postemergence ground application in the spring (prior to May 20). Repeat 2-3 weeks after first application.
2 lbs./acre	Use restricted to Louisiana. Stubble Cane: Postemergence air application in the spring (prior to May 20). Repeat 2-3 weeks after first application.

PRE-PLANTING TREATMENT: Dissolve the DALAPON in enough water for good spray coverage.

1. Fall Treatment to Control Quackgrass: Use 15 pounds of DALAPON per acre on land to be planted to crops such as sugar beets, beans, corn and potatoes, the following spring. Application can be made during September or October and possibly later in some areas, but the quackgrass should be growing well when treated. Treated areas can be plowed down in 10 to 20 days. Plowing can be delayed until the spring. With some established sods improved control will be obtained if the sod is first plowed and the quackgrass regrowth prevented.

to 4 pounds DALAPON per acre overall by air or ground equipment. Use the 4 pound rate if grasses are well beyond the 2-leaf stage or are not growing well due to dry conditions. For aerial application, use a minimum of 5 gallons of spray mixture per acre and for ground application, use enough water to obtain good grass coverage.

For use beyond the 6-leaf stage until beets are about 14 inches tall: To control annual grasses apply as a directed spray at the rate of 3 to 5 pounds DALAPON per acre on an overall basis, in enough water for good grass coverage. Use the lower rate if grasses are very small and growing actively. Apply with leaf-lifting equipment. This will minimize spray contact on the beet leaves.

NOTE: The spray may be applied broadcast or in bands. For band treatments the amount of DALAPON needed per acre will be reduced in proportion to the reduction in amount of area actually sprayed. Use no more than 8 pounds DALAPON post-emergence per acre in any single growing season. Beet tops (or roots) may be fed to livestock.

DECIDUOUS FRUIT ORCHARDS AND GRAPE PLANTINGS

GENERAL RECOMMENDATIONS: To control perennial grasses such as quackgrass, johnsongrass and bermudagrass use rates of DALAPON grass killer as recommended for each crop listed below plus 2 to 4 pints of a non ionic wetting agent in 75 to 100 gallons of water per acre. Apply as a directed spray to the orchard floor after grasses have begun to grow well in the spring but before seed heads form. In all cases spray to just wet grass without runoff. Do not disturb by mowing or cultivating early spring grass growth before spraying. Apply when soil moisture is high such as soon after rainfall or irrigation. Retreat as needed, but apply no more than twice in any growing season. Do not disc or disturb treated grass sooner than 4 weeks after spraying. Discing after this interval may improve control.

APRICOTS PEACHES PLUMS (PRUNES)

Bearing and nonbearing in western areas: Use at rate of 2 to 4 pounds of DALAPON per acre on the orchard floor. Apply as a directed spray to a 4 to 8 foot wide band or ears of deciduous trees or apply as a spot treatment only to areas where grasses are a

CORN-DIRECTED SPRAY: For control of seedlings of green, yellow and giant foxtail and broadleaved weeds such as pigweeds, lamb-quarters and wild mustard apply two thirds pound DALAPON plus recommended amount of 2,4-D weed killer referred to in General Instruction per acre of corn to a 14-inch band in 40 to 42 inch corn rows when corn is 8 to 20 inches tall ground to whorl.

This is equivalent to an over-all rate of 2 pounds of DALAPON plus 1/2 pound of 2,4-D per acre for band application. The amount used should be proportionate to area actually sprayed. Keep spray off corn leaves by using a leaf-lifter equipped with 95 degree even coverage flat fan nozzle tips, and directing the spray. Spray only the lower half of the corn stalks below the lifted leaves but in no case higher than 7 inches above the ground. Apply carefully with emphasis on sprayer calibration, spray pattern width, height of spray on corn and rate of DALAPON. Best results are obtained by spraying when grass and weeds are small and not as tall as the corn. Use of a rotary hoe soon after corn emergence will delay grass and weed growth so that the corn will be taller than the weeds and grass when spray is applied. Quick kill should not be expected, but treated grass and weeds will be stunted or die back and remain in a non-competitive condition. This also discourages reinvasion of new seedlings. **CAUTION:** Do not use on corn grown for seed.

FIELD CORN: Early Postemergence: To control seedlings of annual grasses such as green, yellow, and giant foxtail and of annual broadleaf weeds such as lambsquarters, pigweed, and wild mustard use 1/2 pound of DALAPON plus 1 to 2 pounds of Atrazine 80 percent wettable powder plus 1 to 1 1/2 gallons of emulsifiable crop oil per acre as a tank mix combination with water to make 10 to 20 gallons total spray. Apply as an overall spray when weeds and grass are less than 1 1/2 inches tall and corn is in the spike to 4 leaf stage. Consult your State agricultural experiment station or extension service weed specialist for local use directions. Prepare the spray by dissolving DALAPON in the required amount of water contained in a spray tank. Using a convenient container, make a thin slurry of Atrazine 80 percent wettable powder in water, thoroughly wetting the Atrazine, and add to the solution of DALAPON. Add the oil last. Provide continuous agitation in the spray tank during mixing, holding and spraying operations to keep the spray uniformly

grass seedling growing actively. **NOTE:** To avoid directions ca dosage. MCP where broad-

CRANBERRIES: 20 pounds of DALAPON per acre to control bur-reed and irrigation and areas of cran usually in ear but before application as ne the spray to 1 Keep spray of

Vine Treatment: about 300 gallons bogs to control tygrass, warm wide leaf grass. Treatment should be in October and treatment may be reduced only may be reduced varieties as r mendations o

Swab Treatment: and not to the pounds in 5 gallons per acre) as a weeds appear two week applications will may result in application if carelessly or apply within than two applications c

CITRUS: Use 1/2 pound of DALAPON per acre on the orchard floor. Apply as a directed spray to a 4 to 8 foot wide band or ears of deciduous trees or apply as a spot treatment only to areas where grasses are a

Company and the Seller offer, and the Buyer uses this product subject to the understanding that the Buyer assumes all such risks.

IMPORTANT: Mixing: Have the spray tank at least half full of water before adding DALAPON. Add DALAPON slowly, stirring to dissolve it completely. Use enough water (10 to 40 gallons per acre) for good spray coverage. DALAPON contains a wetting agent which is necessary and adequate for many uses. However, with certain perennial grasses that are difficult to wet, or when low rates of DALAPON are utilized, particularly in connection with highly diluted sprays, the use of an approved non ionic wetting agent at 2 to 3 pints per 100 gallons of spray may be helpful in obtaining maximum control. Consult agricultural experiment station or extension service weed specialists.

Combination Sprays: In sprays with 2,4-D weed killers do not use more than 8 pounds of DALAPON in 10 gallons of water. Mix DALAPON and water first, then add weed killers. **Airplane Application:** Use suggested rates of DALAPON in 5 to 10 gallons of water for pre-plant treatment of crop lands or use on non crop areas. Observe use precautions on label and local regulations.

NON-CROPLAND APPLICATION

SEEDLING GRASSES: To control giant foxtail and other grasses in fence rows and other non-crop areas, use 10 pounds of DALAPON in 50 gallons of water and spray to thoroughly wet, prior to heading. The same spray mixture can be used to spot treat established grass infestations. Re-treat if needed.

DRAINAGE DITCHES AND NON-CROP AGRICULTURAL LANDS: When using a spray boom, use 15 pounds of DALAPON per acre in not less than 40 gallons of water. Repeat application in 2 to 4 weeks and follow up with spot treatment as required. With an orchard-type spray gun on such vegetation as johnsongrass, cattails and phragmites (giant plume grass), use 10 pounds of DALAPON in 100 gallons of water and wet all foliage thoroughly. Spray cattails and phragmites after new sprouts have emerged and are two to three feet tall. In Western areas, fall spraying of cattails during catkin development is effective. To control broad leaved weeds and woody plants, 2,4-D weed killers can be added to sprays containing DALAPON. Spray re-growth with 10 to 15 pounds of DALAPON per acre, or spot spray with 10 pounds of DALAPON in 100 gallons of water.

CROPLAND APPLICATION

REPEAT TREATMENTS WITH LOW RATES ON JOHNSON AND BERMUDA GRASS: Use 5 to 7 pounds of DALAPON in 40 to 50 gallons of water per acre. Make two or three applications 10 to 20 days apart, on vigorously growing grass. Tillage two weeks after the third spray is suggested if the land is to be planted to a late fall or the next spring crop such as soybeans, cotton and sorghum.

SUGAR BEETS: Postemergence application in the spring (prior to May 20). Repeat 2-3 weeks after first application.

PRE-PLANTING TREATMENT: Dissolve the DALAPON in enough water for good spray coverage.

1. Fall Treatment to Control Quackgrass: Use 15 pounds of DALAPON per acre on land to be planted to crops such as sugar beets, beans, corn and potatoes, the following spring. Application can be made during September or October and possibly later in some areas, but the quackgrass should be growing well when treated. Treated areas can be plowed down in 10 to 20 days, or plowing can be delayed until spring. With some established sods improved control will be obtained if the sod is first plowed and the quackgrass regrowth sprayed.

2. Spring Treatment to Control Quackgrass: Early spring application of 8 pounds of DALAPON per acre can reduce quackgrass on land to be planted to crops such as sugar beets, beans and corn, about 4 to 5 weeks later. Spray when grass is 4 to 6 inches tall and growing well. After spraying, wait at least 4 days before plowing down, and another 4 to 5 weeks before planting crops susceptible to DALAPON. If soil is unusually dry a longer waiting period will be necessary to avoid crop injury.

3. Spring Treatment of Johnsongrass: Use on land to be planted to cotton, soybeans, corn or sorghum. Apply 5 to 7 pounds of DALAPON per acre as a foliage spray in the spring when johnsongrass is 8 to 12 inches tall and growing well. After spraying wait 3 days then plow a deep disk. One or more additional diskings prior to planting are suggested. Cotton can be planted without further delay. For corn or soybeans, wait at least 5 days after plowing before planting. With sorghum wait at least 2 1/2 weeks after plowing or deep tillage before planting. If soil remains unusually dry after plowdown or deep disking a longer waiting period may be needed before planting soybeans, corn or sorghum to avoid crop injury. Under such condition delay planting these crops at least 5 days after receiving a minimum of 0.5 inch rainfall.

COTTON: Spot treatment for perennial grasses such as johnsongrass and bermudagrass: Use 1 pound of DALAPON in 10 gallons of water and spray to wet all grass foliage. Spray after the grass has developed good foliage and is growing vigorously. Retreat as needed to control escaped plants. An eradication program may take up to three applications during a season. Cotton plants wet with spray are usually injured, but adjacent plants are not so seriously affected. Control new seedlings by tillage. **lay-by spray in cotton to control annual grasses in western irrigated areas:** Use 5 pounds of DALAPON in 50 gallons of water per acre. Cover entire soil area with a directed spray which wets grass without wetting cotton. Spray after last cultivation when grass is up but still small.

SUGAR BEETS: For use anytime from emergence through the 6-leaf stage: To control wild oats and quackgrass, apply 5 to 8 pounds DALAPON per acre as an overall spray with ground equipment in enough water for good grass coverage. Some stunting of beets and possible yield reduction may occur under some conditions from these rates. To control annual grasses other than wild oats, apply 2

early spring grass growth before spraying. Apply when soil moisture is high such as soon after rainfall or irrigation. Re-treat as needed, but apply no more than twice in any growing season. Do not disc or disturb treated grass sooner than 4 weeks after spraying. Discing after this interval may improve control.

APRICOTS, PEACHES, PLUMS (PRUNES): Bearing and nonbearing in western areas. Use at rate of 6 to 7 pounds of DALAPON per acre on broadcast basis. Apply as a directed spray to a 4 to 8 foot wide band on each side of tree row or apply as a spot treatment only to areas where grasses are a problem. For band or spot treatment the amount of spray should be reduced proportionate to the area actually sprayed. Spray to just wet without runoff. Apply when grasses have begun growing well in the spring but before heading. Re-treat as needed, but use no more than twice in any one growing season. Keep spray off crop foliage and fruit and do not apply within 30 days of harvest. Do not graze livestock on treated areas.

PEACHES: Bearing and non-bearing in other than western areas. For spot treating use 1 pound of DALAPON per 20 gallons of water and spray grass to wet, without run-off. As directed spray use no more than 3 1/2 pounds of DALAPON per acre per application on a broadcast basis. Keep spray off foliage and fruit and do not apply within 30 days of harvest. Apply no more than twice in any growing season. Do not graze livestock on treated areas.

APPLES AND PEARS: In orchards less than 4 years old use DALAPON as directed broadcast spray at rate of 5 pounds per treated acre; or apply as a directed spray to a 4 to 8 foot wide band on each side of tree row; or as a spot treatment only to areas where grasses are a problem. With band or spot treatment the amount of spray should be reduced in proportion to the area actually treated. In orchards at least 4 years old use 10 pounds DALAPON per treated acre as directed broadcast spray; or apply in a band as a directed spray from each side of the tree row, or as a spot treatment only to areas where grasses are a problem. With band or spot treatment the amount of spray should be reduced in proportion to the area actually treated. Apply when grasses have begun growing well in the spring, but before heading. Spray to just wet grass without runoff. Re-treat as needed but use no more than twice in any one growing season. Keep spray off crop foliage and fruit, and do not apply within 30 days of harvest. Do not graze livestock on treated areas.

GRAPES: Bearing, in California and Arizona. Use DALAPON at the rate of 10 pounds per treated acre on a broadcast basis. Apply as a directed spray to a band 30 inches wide centered on vine row. Keep spray off grape foliage and fruit. Do not apply more than twice in any growing season. Do not apply within 30 days of harvest. Keep spray out of irrigation furrows. Do not graze livestock on treated areas.

bination with water to make 10 to 20 gallons total spray. Apply as an overall spray when weeds and grass are less than 1 1/2 inches tall and corn is in the spike to 4-leaf stage. Consult your State agricultural experiment station or extension service weed specialist for local use directions. Prepare the spray by dissolving DALAPON in the required amount of water contained in a spray tank. Using a convenient container, make a thin slurry of Atrazine 80 percent wettable powder in water, thoroughly wetting the Atrazine, and add to the solution of DALAPON. Add the oil last. Provide continuous agitation in the spray tank during mixing, holding, and spraying operations to keep the spray uniformly mixed.

ASPARAGUS: To control quackgrass, apply 10 pounds of DALAPON per acre before cutting and 3 to 4 weeks later as needed. With a single treatment, use 20 pounds of DALAPON either before or after the cutting season. For bermudagrass control, apply 20 pounds of DALAPON per acre either before or after the cutting season, and a second spray of 10 pounds as needed. NOTE: During the cutting season, spray immediately after cuttings. Later sprays should be directed under the fern growth. Use enough water to provide uniform wetting of the grass. Spot spray patches of grass with 1 pound of DALAPON in 10 gallons of water.

PEAS: To control seedling grasses, use one pound of DALAPON per acre in enough water for good spray coverage. Apply at least 25 days prior to harvest when the grass seedlings are young and the peas are 2 to 6 inches tall. DALAPON can be used in a combination spray with a dinitro pre-emergence weed killer to control both weeds and grasses. Fresh pea vines or pea silage may be fed to livestock if desired, but do not feed pea vine hay.

POTATOES: To control seedling grasses, use 3 pounds of DALAPON per acre in enough water to wet the grass evenly. Apply before emergence of the potatoes when grass plants are small. This application can be a combination spray with a dinitro pre-emergence weed killer. Where quackgrass comes up after planting but before potatoes emerge, use up to 10 pounds of DALAPON per acre and wet the grass well. Do not apply DALAPON after potato plants emerge. Spring pre-planting treatment of quackgrass with 8 pounds of DALAPON per acre is effective. After 4 days land can be plowed and potatoes planted immediately if normal soil moisture is present. **Late Season Grass Control:** Use 5 pounds of DALAPON in 15 to 25 gallons of water per acre. Make application after lay-by when grass seeds have germinated but before the grass seedlings are 3 inches tall. Use a vine lifter and direct the spray on the grass up to the base of the potato plants so that it will cover the tops of the row and the middles but will get a minimum of spray on the potato foliage. Note: Do not use DALAPON on land planted or to be planted to red skinned varieties or White Rose.

FLAX: To control pigeongrass or green, yellow and giant foxtails in flax, use 1 pound of DALAPON per acre in 5 to 10 gallons of water when flax is 1 to 6 inches tall. For best results, use when the young

two-week applications will may result in application if carelessly or apply within than two app mendations

CITRUS: Use including pangolagr maidencane lime groves. acre in 50 to directed spr same rate pound of DAL to wet the application who seed heads for applications intervals. In spraying is re one half the trees, to mi casionally o applications intervals. CA on very light splaned citri Do not use in diseased, in c Do not sprat spray off cit livestock on

GROVE DIT Dissolve app 100 gallons of pounds of D Spray to wet plications one and grasses guinegrass. silvex weed cattails, weed labels for de livestock on

COFFEE: T kikuyugrass, grasses in es dissolve one Apply as dire run-off but ne the spray of plication to prior to seed later or whe more than ty not apply wi

GRASS CON crabgrass, (California) chards in Ha of 1/8 to 1 Spray to just

MANUFACTURED BY

HELENA CHEMICAL COMPANY

West Helena, Ark. Tampa, Fla. Lubbock, Texas

Des Moines, Iowa West Columbia, South Carolina

NET WEIGHT

____ POUNDS

DALAPON GRASS KILLER

ACTIVE INGREDIENTS:

Sodium salt of dalapon
(2,2-Dichloropropionic Acid) 85%
[DALAPON (2,2-Dichloropropionic
Acid) equivalent 74%]

INERT INGREDIENTS: 15%
..... 100%

CAUTION

KEEP OUT OF REACH OF CHILDREN
Read Complete Precautions On Side Panel

EPA Reg. No 5905-200

pre-emerge or post-emergence, bermuda and for rates and limitations

LIMITATIONS

Florida. Directed spray in spring

in 5 months before

Florida. Spray to wet in spring do not apply more than 15 lbs. per acre. Do not spray in 5 months before

Hawaii. Pre-emergence ground treatment as directed. Repeat 2-3 times. Do not spray

Hawaii. Spray to wet. Apply 15 lbs. per acre. Do not apply more than 15 lbs. acid during a 2-year cycle. Do not spray

Louisiana. Pre-emergence ground treatment in spring (prior to May 20) 3 weeks after first

Louisiana. Pre-emergence air application (prior to May 20) 3 weeks after first applicat-

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the DALAPON in the following manner:

Use 15 pounds of DALAPON per acre on planted to crops in the following states: during September and October in some areas but the best results are obtained when treated 10 to 20 days before planting. With some crops, a pre-emergence treatment will be obtained if applied before grass regrowth

to 4 pounds DALAPON per acre overall by air or ground equipment. Use the 4 pound rate if grasses are well beyond the 2-leaf stage or are not growing well due to dry conditions. For aerial application, use a minimum of 5 gallons of spray mixture per acre and for ground application, use enough water to obtain good grass coverage.

For use beyond the 6-leaf stage until beets are about 14 inches tall: To control annual grasses apply as a directed spray at the rate of 3 to 5 pounds DALAPON per acre on an overall basis, in enough water for good grass coverage. Use the lower rate if grasses are very small and growing actively. Apply with leaf-lifting equipment. This will minimize spray contact on the beet leaves.

NOTE: The spray may be applied broadcast or in bands. For band treatments the amount of DALAPON needed per acre will be reduced in proportion to the reduction in amount of area actually sprayed. Use no more than 8 pounds DALAPON post-emergence per acre in any single growing season. Beet tops (or roots) may be fed to livestock.

DECIDUOUS FRUIT ORCHARDS AND GRAPE PLANTINGS

GENERAL RECOMMENDATIONS: To control perennial grasses such as quackgrass, johnsongrass and bermudagrass use rates of DALAPON grass killer as recommended for each crop listed below plus 2 to 4 pints of a non ionic wetting agent in 75 to 100 gallons of water per acre. Apply as a directed spray to the orchard floor after grasses have begun to grow well in the spring but before seed heads form. In all cases spray to just wet grass without runoff. Do not disturb by mowing or cultivating early spring grass growth before spraying. Apply when soil moisture is high such as soon after rainfall or irrigation. Re treat as needed, but apply no more than twice in any growing season. Do not disc or disturb treated grass sooner than 4 weeks after spraying. Discing after this interval may improve control.

APRICOTS, PEACHES, PLUMS (PRUNES): Bearing and nonbearing in western areas. Use at rate of 4 to 7 pounds of DALAPON per acre on an overall basis. Apply as a directed spray to a 4 to 8 foot wide band on each side of tree row or apply as a spot treatment only to areas where grasses are a

CORN-DIRECTED SPRAY: For control of seedlings of green, yellow and giant foxtail and broadleaved weeds such as pigweeds, lamb-squarters and wild mustard apply two thirds pound DALAPON plus recommended amount of 2,4-D weed killer referred to in General Instruction per acre of corn to a 14-inch band in 40 to 42 inch corn rows when corn is 8 to 20 inches tall-ground to whorl.

This is equivalent to an over-all rate of 2 pounds of DALAPON plus 1/2 pound of 2,4-D per acre for band application. The amount used should be proportionate to area actually sprayed. Keep spray off corn leaves by using a leaf-lifter equipped with 95 degree even coverage flat fan nozzle tips, and directing the spray. Spray only the lower half of the corn stalks below the lifted leaves but in no case higher than 7 inches above the ground. Apply carefully with emphasis on sprayer calibration, spray pattern width, height of spray on corn and rate of DALAPON. Best results are obtained by spraying when grass and weeds are small and not as tall as the corn. Use of a rotary hoe soon after corn emergence will delay grass and weed growth so that the corn will be taller than the weeds and grass when spray is applied. Quick kill should not be expected, but treated grass and weeds will be stunted or die back and remain in a non-competitive condition. This also discourages reinvasion of new seedlings. **CAUTION:** Do not use on corn grown for seed.

FIELD CORN: Early Postemergence: To control seedlings of annual grasses such as green, yellow, and giant foxtail and of annual broadleaf weeds such as lambsquarters, pigweed, and wild mustard use 1/2 pound of DALAPON plus 1 to 2 pounds of Atrazine 80 percent wettable powder plus 1 to 1 1/2 gallons of emulsifiable crop oil per acre as a tank mix combination with water to make 10 to 20 gallons total spray. Apply as an overall spray when weeds and grass are less than 1 1/2 inches tall and corn is in the spike to 4-leaf stage. Consult your State agricultural experiment station or extension service weed specialist for local use directions. Prepare the spray by dissolving DALAPON in the required amount of water contained in a spray tank. Using a convenient container make a thin slurry of Atrazine 80 percent wettable powder in water, thoroughly wetting the Atrazine and add to the solution of DALAPON. Add the oil last. Provide continuous agitation in the spray tank during mixing, holding and spraying operations to keep the spray uniformly

grass seedlings are less than 2 inches tall and growing actively. Do not expect rapid grass kill. **NOTE:** To avoid injury to flax, follow application directions carefully and do not exceed stated dosage. MCP or 2,4-D can be used with DALAPON where broad-leaved weed control is desired.

CRANBERRIES: Ditch and Shore Treatment: Use 20 pounds of DALAPON in 200 to 300 gallons of water per acre to control cattails, cutgrass, poverty grass, bur-reed and common rushes and sedges in irrigation and drainage ditches and along shore areas of cranberry bogs. Make the first application usually in early June, when weeds are growing well but before seed heads form. Make second application as needed but not later than July 31. Apply the spray to thoroughly wet the weedy vegetation. Keep spray off cranberry foliage.

Vine Treatment: Use ten pounds of DALAPON in about 300 gallons of water per acre on cranberry bogs to control summergrass, cutgrass, povertygrass, wamsy, warty panicgrass, bunchgrass, wide leaf grasses, round rush and sedge weeds. Treatment should be made only after harvest in October and early November. **Caution:** This treatment may reduce the next season's crop. For example, on the Howes variety the crop may be reduced only slightly whereas on Early Blacks it may be reduced up to 75 percent and on certain varieties as much as 90 percent. Follow recommendations of Agricultural Experiment Stations.

Swab Treatment: Apply DALAPON (to the grass and not to the cranberry foliage) at the rate of 2 pounds in 5 gallons of water (up to 5 gallons mixture per acre) as a swab treatment as soon as the grassy weeds appear above the vines. Two applications at two week intervals are suggested. Swab applications will suppress growth of grassy weeds, and may result in crop reduction in the year following application if the concentrated solution is applied carelessly or drips onto the cranberry vines. Do not apply within 60 days of harvest. Do not use more than two applications per season. Follow recommendations of Agricultural Experiment Stations.

CITRUS: Use DALAPON to control grasses in citrus groves. Use 15 pounds of DALAPON per acre on planted to crops in the following states: during September and October in some areas but the best results are obtained when treated 10 to 20 days before planting. With some crops, a pre-emergence treatment will be obtained if applied before grass regrowth

exceed 100 gallons per acre. Make first application before harvest and respray at intervals as regrowth warrants. Do not exceed 24 pounds of DALAPON per acre per year.

CAUTION: During harvest periods, spray only immediately after gleaning nuts from the ground. Do not spray directly on fallen nuts.

BANANA PLANTINGS: To control perennial grasses such as guinea (*Panicum maximum*), amargo (*Axonopus* sp.) and gamalite (*Paspalum* sp.), use 10 to 15 pounds of DALAPON per acre in enough water to obtain good coverage. Often rates of 6 to 8 pounds per acre applied in the same manner give very satisfactory results. A first treatment should be made when grass is growing well, but before heading. Repeat treatments, usually spot applications, should be made where needed in about a month to six weeks and later on as required. Use no more than a total of 30 pounds of DALAPON per acre per year. Keep spray off banana fruits, foliage or young plants. Use sufficient spray to wet grass foliage thoroughly, but avoid run-off.

WARNING

DALAPON IN THE SOIL MAY INHIBIT SEED GERMINATION AND PLANT GROWTH FOR 30 DAYS OR MORE, DEPENDING ON DOSAGE APPLIED, SOIL TYPE, TEMPERATURE, AND AMOUNT OF SOIL MOISTURE AND RAINFALL. ACCORDINGLY, ON LAND TO BE PLANTED TO SENSITIVE CROPS SUCH AS GRASS, SMALL GRAINS, CORN OR BEANS, DELAY PLANTING FOR AT LEAST 30 DAYS AFTER PLOWING AREAS SPRAYED WITH DALAPON. DECOMPOSITION OF DALAPON PROCEEDS MOST RAPIDLY IN WARM, MOIST SOIL. IF SOIL REMAINS COOL OR DRY, DECOMPOSITION MAY BE SLOWER, AND MORE TIME WILL BE REQUIRED AFTER PLOWING BEFORE CERTAIN CROPS CAN BE PLANTED SAFELY TO AVOID THE POSSIBILITY OF RESIDUES IN MEAT OR MILK. DO NOT GRAZE MEAT OR DAIRY ANIMALS ON VEGETATION TREATED WITH DALAPON.

To avoid injury to desirable plants, do not allow spray or spray drift containing DALAPON to contact foliage or roots of such plants, including lawns

Louisiana. Emergence air application (prior to May 20). Use after first application.

Use the DALAPON in spray.

Grass: Use 15 pounds per acre on crops such as potatoes, the following during September some areas, but the when treated. Treat 10 to 20 days, or spring. With some will be obtained if quackgrass regrowth

Grass: Early spring ON per acre can be planted to crops such as 4 to 5 weeks later. As tall and growing days before plowing before planting crops is unusually dry a necessary to avoid crop

Grass: Use on land to corn or sorghum. ON per acre as a johnsongrass is 8 to After spraying wait or more additional suggested. Cotton can or corn or soybeans, g before planting. eeks after plowing. If soil remains or deep disking a ed before plan- avoid crop injury. ting these crops at imum of 0.5 inch

Perennial grasses
Bermudagrass: Use 1 of water and spray after the grass has plowing vigorously. Escaped plants. An up to three ap- on plants wet with adjacent plants are l new seedlings by to control annual s: Use 5 pounds of r per acre. Cover spray which wets Spray after last still small.

Control from emergence
control wild oats and DALAPON per acre and equipment in coverage. Some eld reduction may m these rates. To wild oats, apply 2

to grow well in the spring but before seed needs form. In all cases spray to just wet grass without runoff. Do not disturb by mowing or cultivating early spring grass growth before spraying. Apply when soil moisture is high such as soon after rainfall or irrigation. Re-treat as needed, but apply no more than twice in any growing season. Do not disc or disturb treated grass sooner than 4 weeks after spraying. Discing after this interval may improve control.

APRICOTS, PEACHES, PLUMS (PRUNES): Bearing and nonbearing in western areas. Use at rate of 6 to 7 pounds of DALAPON per acre on broadcast basis. Apply as a directed spray to a 4 to 8 foot wide band on each side of tree row or apply as a spot treatment only to areas where grasses are a problem. For band or spot treatment the amount of spray should be reduced proportionate to the area actually sprayed. Spray to just wet without runoff. Apply when grasses have begun growing well in the spring but before heading. Re-treat as needed, but use no more than twice in any one growing season. Keep spray off crop foliage and fruit and do not apply within 30 days of harvest. Do not graze livestock on treated areas.

PEACHES: Bearing and non-bearing in other than western areas. For spot treating use 1 pound of DALAPON per 20 gallons of water and spray grass to wet, without run-off. As directed spray use no more than 3 1/2 pounds of DALAPON per acre per application on a broadcast basis. Keep spray off foliage and fruit and do not apply within 30 days of harvest. Apply no more than twice in any growing season. Do not graze livestock on treated areas.

APPLES AND PEARS: In orchards less than 4 years old use DALAPON as directed broadcast spray at rate of 5 pounds per treated acre; or apply as a directed spray to a 4 to 8 foot wide band on each side of tree row; or as a spot treatment only to areas where grasses are a problem. With band or spot treatment the amount of spray should be reduced in proportion to the area actually treated. In orchards at least 4 years old use 10 pounds DALAPON per treated acre as directed broadcast spray; or apply in a band as a directed spray from each side of the tree row, or as a spot treatment only to areas where grasses are a problem. With band or spot treatment the amount of spray should be reduced in proportion to the area actually treated. Apply when grasses have begun growing well in the spring, but before heading. Spray to just wet grass without runoff. Re-treat as needed but use no more than twice in any one growing season. Keep spray off crop foliage and fruit, and do not apply within 30 days of harvest. Do not graze livestock on treated areas.

GRAPES: Bearing, in California and Arizona. Use DALAPON at the rate of 10 pounds per treated acre on a broadcast basis. Apply as a directed spray to a band 30 inches wide centered on vine row. Keep spray off grape foliage and fruit. Do not apply more than twice in any growing season. Do not apply within 30 days of harvest. Keep spray out of irrigation furrows. Do not graze livestock on treated areas.

percent wettable powder plus 1 to 1 1/2 gallons of emulsifiable crop oil per acre as a tank mix combination with water to make 10 to 20 gallons total spray. Apply as an overall spray when weeds and grass are less than 1 1/2 inches tall and corn is in the spike to 4-leaf stage. Consult your State agricultural experiment station or extension service weed specialist for local use directions. Prepare the spray by dissolving DALAPON in the required amount of water contained in a spray tank. Using a convenient container, make a thin slurry of Atrazine 80 percent wettable powder in water, thoroughly wetting the Atrazine, and add to the solution of DALAPON. Add the oil last. Provide continuous agitation in the spray tank during mixing, holding, and spraying operations to keep the spray uniformly mixed.

ASPARAGUS: To control quackgrass, apply 10 pounds of DALAPON per acre before cutting and 3 to 4 weeks later as needed. With a single treatment, use 20 pounds of DALAPON either before or after the cutting season. For bermudagrass control, apply 20 pounds of DALAPON per acre either before or after the cutting season, and a second spray of 10 pounds as needed. NOTE: During the cutting season, spray immediately after cuttings. Later sprays should be directed under the fern growth. Use enough water to provide uniform wetting of the grass. Spot spray patches of grass with 1 pound of DALAPON in 10 gallons of water.

PEAS: To control seedling grasses, use one pound of DALAPON per acre in enough water for good spray coverage. Apply at least 25 days prior to harvest when the grass seedlings are young and the peas are 2 to 6 inches tall. DALAPON can be used in a combination spray with a dinitro pre-emergence weed killer to control both weeds and grasses. Fresh pea vines or pea silage may be fed to livestock if desired, but do not feed pea vine hay.

POTATOES: To control seedling grasses, use 3 pounds of DALAPON per acre in enough water to wet the grass evenly. Apply before emergence of the potatoes when grass plants are small. This application can be a combination spray with a dinitro pre-emergence weed killer. Where quackgrass comes up after planting but before potatoes emerge, use up to 10 pounds of DALAPON per acre and wet the grass well. Do not apply DALAPON after potato plants emerge. Spring pre-planting treatment of quackgrass with 8 pounds of DALAPON per acre is effective. After 4 days land can be plowed and potatoes planted immediately if normal soil moisture is present. **Late Season Grass Control:** Use 5 pounds of DALAPON in 15 to 25 gallons of water per acre. Make application after lay-by when grass seeds have germinated but before the grass seedlings are 3 inches tall. Use a vine lifter and direct the spray on the grass up to the base of the potato plants so that it will cover the tops of the row and the middles but will get a minimum of spray on the potato foliage. Note: Do not use DALAPON on land planted or to be planted to red skinned varieties or White Rose.

FLAX: To control pigeongrass or green, yellow and giant foxtails in flax, use 1 pound of DALAPON per acre in 5 to 10 gallons of water when flax is 1 to 6 inches tall. For best results, use when the young

plants are 1 to 2 inches tall. Apply 1 to 2 gallons of water (up to 1 gallon per acre) as a swab treatment as soon as the grassy weeds appear above the vines. Two applications at two-week intervals are suggested. Swab applications will suppress growth of grassy weeds, and may result in crop reduction in the year following application if the concentrated solution is applied carelessly or drips onto the cranberry vines. Do not apply within 60 days of harvest. Do not use more than two applications per season. Follow recommendations of Agricultural Experiment Stations.

CITRUS: Use DALAPON to control grasses including bermudagrass, johnsongrass, pangolagrass, guineagrass, paragrass and maidencane in orange, grape fruit, tangerine, and lime groves. Apply 2 to 4 pounds of DALAPON per acre in 50 to 100 gallons of water as a broadcast directed spray to the grove floor or apply at the same rate per acre as a spot treatment using 1 pound of DALAPON in 20 gallons of water and spray to wet the grass without runoff. Make initial application when grasses are growing well but before seed heads form. In Florida and Texas, make up to 3 applications per season, if needed, at 2 to 10 day intervals. In California and Arizona, only spot-spraying is recommended and to cover no more than one half the area over the root zone of individual trees, to minimize herbicide symptoms which occasionally occur on citrus foliage. Make up to 3 applications per season, if needed, at 4 to 8 week intervals. CAUTION: Use only the lower rates listed on very light soil. Do not use under newly transplanted citrus trees or trees less than 4 years old. Do not use in groves which are under drought stress, diseased, in decline or suffering from cold damage. Do not spray bare soil under citrus trees. Keep spray off citrus foliage and fruit. Do not graze livestock on treated areas.

GROVE DITCHES AND NON-GROVE AREAS: Dissolve approximately 5 pounds of DALAPON per 100 gallons of water and apply at rates to give 5 to 10 pounds of DALAPON per acre actually treated. Spray to wet the foliage uniformly. Make two applications one to two weeks apart to control cattails and grasses such as phragmites, paragrass and guineagrass. DALAPON can be used with 2,4-D or silvex weed killers for over-all control of grasses, cattails, weeds and woody plants. See these product labels for detailed use directions. Do not graze livestock on treated area.

COFFEE: To control crabgrass, bermudagrass, kikuyagrass, para (California) grass and other grasses in established coffee plantations in Hawaii, dissolve one pound DALAPON in 10 gallons water. Apply as directed spray to just wet the grass without run-off but not to exceed 100 gallons per acre. Keep the spray off the coffee foliage. Make initial application to grasses which are growing well and prior to seed head formation. Respray 4 to 6 weeks later or when regrowth warrants, but do not apply more than two sprays in any one crop year and do not apply within 8 months of harvest.

GRASS CONTROL IN MACADAMIA: To control crabgrass, bermudagrass, kikuyagrass, para (California) grass, dallisgrass in macadamia orchards in Hawaii, use DALAPON in concentrations of 1/8 to 1 pound per 10 gallons of water. Spray to just wet the grass without run-off, but not to

FOR AT LEAST 30 DAYS AFTER PLOWING AREAS SPRAYED WITH DALAPON. DECOMPOSITION OF DALAPON PROCEEDS MOST RAPIDLY IN WARM, MOIST SOIL. IF SOIL REMAINS COOL OR DRY, DECOMPOSITION MAY BE SLOWER, AND MORE TIME WILL BE REQUIRED AFTER PLOWING BEFORE CERTAIN CROPS CAN BE PLANTED SAFELY TO AVOID THE POSSIBILITY OF RESIDUES IN MEAT OR MILK, DO NOT GRAZE MEAT OR DAIRY ANIMALS ON VEGETATION TREATED WITH DALAPON.

To avoid injury to desirable plants, do not allow spray or spray drift containing DALAPON to contact foliage or roots of such plants, including lawns and other desirable turf. Flush spraying equipment with plenty of water immediately after use to avoid contamination of later sprays or possible corrosion.

When using DALAPON in a combination spray with other herbicides be sure to read the directions and precautions on the herbicide container.

Local conditions affect use of herbicides. State agricultural experimental station or extension service weed specialists in many states issue recommendations to fit local conditions.

CONTAINER DISPOSAL

Do not reuse empty container. Destroy it by burying with wastes or burning. Stay away from smoke or fumes.

WARNING

This product is toxic to shrimp. Keep out of tidal marshes and estuaries. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on this label.

NOTICE

WARRANTY AND LIMITATION OF DAMAGES: Helena Chemical Company warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to therein. Helena Chemical Company makes no other express or implied warranty, including any other express or implied warranty of FITNESS or of MERCHANTABILITY, and no agent of Helena Chemical Company is authorized to do so except in writing, with a specific reference to this warranty. Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits, or value, etc.

To Avoid Caking, Keep Inner Polyethylene Bag Tightly Closed.

CAUTION

CAUSES EYE IRRITATION-MAY CAUSE SKIN IRRITATION-HARMFUL IF SWALLOWED. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. KEEP OUT OF REACH OF CHILDREN. In case of contact, flush eyes with plenty of water for at least 15 minutes and get medical attention. For skin, remove contaminated clothing and wash skin with plenty of water. Wash clothing before reuse. If poisoning occurs, get prompt medical attention.

MANUFACTURED BY

HELENA CHEMICAL COMPANY

West Helena, Ark. - Tampa, Fla. - Dallas, Texas

Deer Mountain, Iowa - West Columbia, South Carolina

... grow well in the spring. For best results, apply before seed heads
... spray. For best results, apply before seed heads
... spray. For best results, apply before seed heads

DAKAPON

... 100% effective against all types of grass
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... 100% effective against all types of grass

PEACHES - Apply to the ground in orchards
... Apply to the ground in orchards
... Apply to the ground in orchards

APPLES AND PEARS - Apply to the ground in orchards
... Apply to the ground in orchards
... Apply to the ground in orchards

ORCHARD FLOOR - Apply to the ground in orchards
... Apply to the ground in orchards
... Apply to the ground in orchards

WATERWAYS - Apply to the ground in orchards
... Apply to the ground in orchards
... Apply to the ground in orchards

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DAKAPON

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ASPARAGUS - Apply to the ground in orchards
... Apply to the ground in orchards
... Apply to the ground in orchards

PEAS - Apply to the ground in orchards
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... Apply to the ground in orchards

POTATOES - Apply to the ground in orchards
... Apply to the ground in orchards
... Apply to the ground in orchards

Late Season Grass Control
... Late Season Grass Control
... Late Season Grass Control

FLAX - Apply to the ground in orchards
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DAKAPON

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In Florida and Texas
... In Florida and Texas
... In Florida and Texas

In California and Arizona
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... In California and Arizona

GROVE DITCHES AND NON GROVE AREAS
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COFFEE - Apply to the ground in orchards
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CONTAINER DISPOSAL
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WARNING
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NOTICE
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Des Moines, Iowa — West Columbia, South Carolina