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ACCEPTED
FEB 17 1981
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 19713-36



Diuron 4L

Herbicide

**For Control of Many Annual and
Perennial Grasses and Herbaceous Weeds**

ACTIVE INGREDIENT:
Diuron (3-(3,4-dichlorophenyl)-1-dimethylurea) * 40.0%
INERT INGREDIENTS: 60.0%
*Contains 4.0 lbs. of Diuron per gallon.

Keep out of reach of Children
CAUTION:
SHAKE OR STIR WELL BEFORE USING
SEE FOLD-OUT PANELS FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

Net Contents EPA Reg. No. 19713-36
2½ Gallons 9.45 Liters EPA Est. No. 19713-MS-1

PRECAUTIONS:
CAUTION: May cause eye irritation. Avoid contact with eyes. Get medical attention if necessary.
Keep out of any body of water.

GENERAL INFORMATION:
Drexel Diuron 4L is to be used to control weeds by moisture.
IMPORTANT: Do not apply to near desirable trees or other plants. Chemical may be washed or ways, tennis courts, or similar domestic waters. Keep from product only as specified on label. Thoroughly clean all traces of otherwise crop injury may result with several chances of water contamination water by clean.

DIRECTIONS FOR USE: SHAKE WELL. IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER NOT SPECIFIED ON THE LABEL.

Before spraying, calibrate equipment to measure area to be treated. Water serves only as a carrier. Material must be kept in suitably fixed-boom power sprayers. Screens should be equal to or finer than 1/8 inch. Do not use air agitation. For use in tanks, shake or stir before use.

NON-CROP WEED CONTROL: annual and perennial grasses desired. The degree of control type, rain-fall, and other conditions when ground is frozen, results are obtained if applied to tops and spray the ground.

To control most weeds for Pipeline and Railroad Rights-of-Way, Plant Sites, and around Farms, Use 4 to 8 gallons per acre, required where a longer period such as Johnsongrass are present.

of the ditch. Apply in the spring before weed growth starts or after removal of vegetation. Repeat treatment on spot weeds if not hard to kill. Do not apply in banded groves. Do not treat water furrows between beds as injury to the trees may result.

TEXAS - Orange and Grapefruit. Apply a single treatment of 1 to 3 quarts per acre for annual weeds. Use 3 to 4 1/2 quarts per acre for control of Johnsongrass seedlings. Best results accompany application in the spring. Well established weeds should be eliminated by cultivation prior to treatment.

CORN (Field)

Post emergence. Apply 1 1/2 pints per acre in combination with non-petroleumized nitrogen solution. If nitrogen solution is not used, apply 1/2 quart Duron 4L per acre and add 1 1/2 pints surfactant per 25 gallons spray mixture. Apply as a single directed post emergence spray when corn is at least 20 inches high and weeds are 1 to 4 inches high. **DO NOT APPLY OVER TOP OF CORN.** Do not replant any crop within 1 year except corn. Corn and grain sorghum may be planted the spring following treatment.

Pre emergence. Arkansas, Louisiana, Mississippi and Tennessee. Make a single treatment of 1 1/2 quarts per acre as a broadcast or band treatment using higher dosage on heavy soils (loam, clay loam). Do not use on light (sand, loamy sand or gravelly) soils as injury may result. Plant corn at least 1 1/2 inches deep. Do not replant treated areas to crops other than corn or cotton within 4 months following band treatment and 6 months following broadcast treatment as crop injury may result.

COTTON

Preplant. Arizona and California Only. Apply 1/2 to 2 quarts per acre as a broadcast spray after furrows pre-planting irrigation have been formed. Apply either just prior to planting or after the pre-planting irrigation but before seed beds are dragged off in preparation of planting (see Soil Limitations).

Prior to planting, drag off the top of the seed bed and plant in untreated soil. Treated soil is returned to the bed after planting when irrigation furrows are reformed. If more than 2 furrowing out operations are performed prior to lay-by, weed control in the follow bottoms may be lost. A lay-by application also may be made but the combined total per season rate must not exceed 1/2 quart Duron 4L per acre on sandy loam or 1 1/2 quarts Duron 4L per acre on clay.

Pre emergence (except Arizona and California). Make a single application as a broadcast or band spray after planting but before cotton emerges. Use at the following rates:

BROADCAST TREATMENT

Soil Type*	Spray Mixture Duron 4L in 25 to 40 gal. per acre	lbs. duron per acre
Loamy sand	1 pt.	0.5
Sandy loam, loam, silty loam and silty	1 1/2 pts.	0.8
Sandy clay loam, clay loam, silty clay loam and clay	1 qt.	1.0
Silty clay and clay	1 1/2 qts.	1.6

* Do not use on sand as crop injury may result. For heavy clay soils (high in organic matter) use Monuron Weed Killer. Do not treat cotton in deep furrows as crop injury may result.

BAND TREATMENT

Use proportionately less, for example, for 14 inch band on 42 inch row, use 1/3 broadcast rate. Apply immediately after cotton is planted. Wherever possible, planting and spraying should be combined into one operation. For best results, soil should be first prepared and as free as possible from trash and clods. Shallow incorporation (no deeper than 1/2 inch) with a rotary hoe or similar equipment following planting usually improves results particularly during dry weather. A wide press wheel following planting should be used to provide a level seed bed for subsequent early season post emergence treatments. Treatment usually provides weed control for a period of 3 to 8 weeks. Sufficient moisture (usually 1 to 2 inches) in the form of rainfall or irrigation is necessary after treatment to carry the chemical into root zone of germinating weeds. Best results are obtained when this occurs within 2 weeks after application. If moisture is insufficient to activate Duron 4L or soil becomes crusted before crop emerges, a shallow rotary hoeing (no deeper than 1/2 inch) should be made before weeds become well established.

If initial seeding fails to produce a stand, cotton may be replanted in soil treated with Duron 4L. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation such as disking, do not re-tilt nor move soil into the original drill area. Plant seed at least 1 inch deep. Do not retreat field with a second pre emergence application of Duron 4L during the same crop year as injury to crop may result.

Post-emergence. Early Season. Apply in combination with a surfactant as a directed spray when cotton is at least 6 inches tall and when weeds do not exceed 2 inches in height. A second application may be made if needed. Control of weeds under drought stress or over 2 inches in height is usually impractical.

Apply as a band treatment only. Directing spray to cover weed foliage. **DO NOT SPRAY OVER TOP OF COTTON.** Use pressure of 20 to 25 psi and adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result.

BAND TREATMENT

Amount per acre of cropland as applied to 14 inch band on 42 inch rows (in 10 to 15 gal. water) *

Weed Problem	Duron 4L	Active Ingredients
Annual Weeds	4.5 oz. (13.5 oz.)	0.14 lb. (0.4 lb.) **
Figweed	2.25 oz. (6.75 oz.)	0.07 lb. (0.2 lb.) **

* Include surfactant at 1 pint per 25 gallons of spray. Dilute with 10 parts water and add to nearly full tank.

** Equivalent broadcast rates in parentheses.

Late Season (Lay-by). Use 1/2 to 1 1/2 quarts Duron 4L (1/2 to 1 1/2 quarts in Arizona and California) in 25 to 40 gallons water per acre as a directed spray (see Soil Limitations). Apply when cotton is at least 12 inches high (at least 20 inches for Pima S-2). Keep contact of spray or drift on cotton plants to a minimum. **DO NOT SPRAY OVER TOP OF COTTON.** For control of germinating weed seedlings, apply immediately after last cultivation, direct spray to cover the soil beneath cotton plants and between rows. Alternatively, for control of emerged annual weeds (4 inches or less in height) at lay-by time, add 1 pint surfactant for each 25 gallons spray. Apply as a directed spray to cover weed foliage beneath cotton plants and between rows. **NOTE:** Treatment of 1 to 1 1/2 pints Duron 4L per acre plus surfactant followed by the same treatment later, if needed, may be used as an alternate to the preceding recommendation.

In irrigated cotton, best pre-emergence weed control is obtained if the field is irrigated within 3 to 4 days after application. Thoroughly wet the surface of the ground over the row to carry the herbicide into the root zone of germinating weeds.

SUBSEQUENT CROPS

Duron 4L Herbicide - Type B Application	Crops That May Follow Treated Cotton
Band pre- or post-emergence	Any crop 4 months after last application
Band pre- plus post-emergence or Broadcast pre-emergence (and pre-plant)	Cotton, soybeans, corn or grain sorghums (not sorghos or forage sorghums nor grass sorghums) the next spring. Do not replant treated areas to any other crop within one year after last application as injury to subsequent crops may result.
Broadcast pre-emergence plus band post-emergence	
Broadcast post-emergence (lay by)	Cotton, corn, grain sorghums (not sorghos or forage sorghums nor grass sorghums) the next spring. Do not replant treated areas to any other crop within one year after last application as injury to subsequent crops may result.

NOTE: During a single crop season do not exceed the following amount of Duron 4L per acre as injury to subsequent crops may result: 1/2 quart on loamy sand, 1 quart on sandy loam, 1 1/2 quarts on clay loam, and 2 1/4 quarts on clay.

GLADIOLUS - East of Rocky Mountains: Apply 1/4 to 1 1/2 quarts per acre as pre-emergence and 1 or directed post-emergence treatments (see Soil Limitations). If used for both do not exceed 3 quarts of Duron 4L per acre per application or a total of 1 1/2 quarts per season. On cornel plantings, apply 1/4 quart per acre or post-emergence, but not more than once. Do not use on cornel plantings in Florida. Do not spray over top of gladiolus foliage nor spray to drift onto foliage as injury may result.

GRAPES: Apply only to established vineyards (at least 3 years old) as a band treatment to grape rows. Do not apply to vines with trunks less than 1 1/2 inches in diameter as injury may result.

NOTE: On soils low in clay or organic matter (less than 2%) severe plant injury may result if unusually heavy rains follow treatment and this risk must be assumed by the user.

East of the Rocky Mountains: On soils low in clay or organic matter (1 to 2%) use 1 1/2 to 2 1/2 quarts per acre; on soils high in clay or organic matter use 2 1/2 to 4 1/2 quarts (see Soil Limitations). Apply in the spring just prior to germination and growth of annual weeds.

New York and Pennsylvania - Control of Perennial Grasses: Apply only to established vineyards (at least 4 years old) for spot control of perennial grasses such as quackgrass, ryegrass and orchard grass as a band treatment to ridged soil (2 to 4 inches high) under trellis at the rate of 6 to 9 quarts per acre. Band width should not exceed 30 inches. Make one application in the spring of the year and do not apply the 6 to 9 quarts per acre rate more than once every 4 years. Use only on heavy soil types such as loams, silt loams, clay loams. Do not use in areas where grape roots are shallow or exposed, because of high bedrock, poor drainage or erosion as injury to grapevines may result.

West of the Rocky Mountains: Apply in December, January or February. For initial treatment make a single application of 2 1/2 to 3 quarts per acre; subsequent annual applications of 1 1/2 quarts will usually give adequate weed control. As an alternative to the above schedule, apply 1 1/2 quarts of Duron 4L per acre in October or November and repeat application at the same rate in March or April.

GRASS SEED CROPS (Perennial): In areas as specified, apply only to established plantings at least 1 year old; see Soil Limitations.

Colorado, Kansas, New Mexico and Oklahoma: On sorghum, rice, milo, corn and sand bluegrass (Merion bluegrass) apply 1 1/2 to 2 1/2 quarts per acre during the dormant period (shortly before weed seedlings emerge). Do not apply after crop begins growth in the spring. A crop may be replanted in fields where ash residues have accumulated from burning straw. Use 2 1/2 quarts per acre. Spread unburned chaff or straw with a harrow or chopper before application.

Western Oregon: On alfalfa, lucerne, highland bermgrass, Arizona bermgrass, orchardgrass, Kentucky bluegrass (Merion bluegrass) apply 2 to 4 lbs. per acre between October 1 and November 15. In fields where ash residues have accumulated from burning straw, use 2 1/2 to 3 quarts per acre. Spread unburned chaff or straw with a harrow or chopper before application. If perennial yellowclover (*Trifolium pratense*) is a problem, use 3 quarts per acre. For best results apply as soon as possible after fall rains start. Established weeds (beyond 2 to 4 leaf stage) should be removed prior to treatment. Well established vigorous stands of spring planted alfalfa, lucerne, orchardgrass and Kentucky bluegrass may be treated the following fall provided the crop is planted before April 1 and treatment is not applied before October 15. Use Duron 4L at 1 1/2 qts. per acre.

MACADAMIA NUTS - Hawaii: Use only in orchards which have been established for at least one year. Apply as a directed spray avoiding contact of foliage with spray or drift. Apply 1 1/2 to 4 1/2 quarts per acre immediately after harvest, preferably before weeds emerge. If weeds have emerged, add 1 to 2 pints of surfactant per 50 gallons spray to increase contact activity on weeds. Retreat as needed, but do not exceed 7 1/2 quarts per acre per year.

OLIVES - California: Use only under trees established in the grove for at least 1 year. Do not apply in areas where roots of other valuable plants or trees may extend as injury may result. Apply 1 1/2 quarts per acre after the grove is laid up in fall from late October or November (see Soil Limitations). A second application of 1 1/2 quarts should be made in March or April. Remove weed growth prior to treatment. Avoid contact of foliage with spray or drift.

PEPPERMINT - Pacific Northwest: Apply 2 1/2 quarts per acre just after the last cultivation in the spring prior to emergence of peppermint. Do not apply to newly planted (less than 1 year) nor to emerged peppermint as injury may result.

PINEAPPLE - Hawaii: Apply 3 to 6 quarts per acre as a broadcast spray immediately after planting and prior to weed emergence. Use 3 quarts per acre after harvesting plant crop (for ratoon crop). For plant crop only a second and third broadcast or interspace application may be made prior to differentiation at the rate of 1 1/2 quarts per acre at intervals of not less than 2 months. Additional applications to plant crop may be made as needed to interspace only using 1 1/2 quarts per acre.

Do not apply more than 3 broadcast sprays (maximum 9 quarts per acre) prior to differentiation nor more than 12 quarts total per acre per plant crop. Treated areas may be planted to pineapple or sugar cane 1 year after last application.

PLUMOSUS FERN - Florida: Treat only established stands at least 1 year old. Apply 2 1/2 quarts per acre following hand weeding and 3 to 5 days after mowing of fern (see Soil Limitations). Do not cultivate or disturb soil after application as crop injury may result.

SORGHUM (GRAM) - Southwestern States: Apply 2 1/4 to 12 1/2 fl. ounces per acre as directed post-emergence broadcast or band treatment if the sorghum is 15 inches tall to control weeds 2 to 4 inches in height (see Soil Limitations). DO NOT SPRAY OVER TOP OF SORGHUM. Add 1 pint surfactant per 25 gallons spray. Apply at spray pressures of 20 to 25 psi to minimize drift.

Use lower rate on broadleaved weeds up to 2 inches tall. Use the higher rate on grasses up to 2 inches and broadleaved weeds up to 4 inches tall. When the lower rate is used, a second application may be made if needed provided that the total herbicide applied in one crop year does not exceed 13 fluid ounces of Duron 4L per acre. Treatment of weeds under drought stress is usually ineffective.

Do not replant treated areas to crops other than cotton or crop within 4 months following band treatment and 6 months following broadcast treatment as crop injury may result.

SUGAR CANE: 18 percent possible crop in any area where tolerance to D. unio is determined prior to planting as a field practice. Do not treat sugar cane growing on mucky covered sub-soils or rocky areas as top growth may result in Soil Limitations. Temporary chlorosis of the crop may result from application over emerged cane to minimize chlorosis. Use directed post-emergence sprays.

Florida: For high organic soils, apply 1 1/2 to 3 quarts per acre as a broadcast or band spray prior to weed emergence after planting or after harvesting plant crop (or ratoon crop). A second and third application of 1 1/2 quarts per acre may be made as needed by directed spray inter-row. Do not apply more than 3 treatments nor more than 1 1/2 quarts total per acre between planting (or ratooning) and harvest.

Hawaii and Puerto Rico: Apply 3 to 6 quarts per acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop (or ratoon crop). A second and third application of 1 1/2 to 3 quarts per acre may be made as a broadcast spray over emerged cane or by directed spray inter-row. If weeds are emerged, add a surfactant to spray mixture at the rate of 1 to 2 quarts per 100 gallons and apply as a directed spray. DO NOT SPRAY OVER TOP OF CANE.

Do not apply more than 3 treatments nor more than 7 1/2 quarts per acre of 9 quarts of water. 10 quarts per acre between planting (or ratooning) and harvest. Treated areas may be replanted to sugar cane or pineapple one year after last application.

Louisiana: Use on plant cane seeded on fallowed ground. Make a single application of 2 1/2 to 3 quarts per acre at either of the following times: Fall treatment (August through October) - Treat a 2 foot band over the row after planting of cane, but before weeds or cane emerge. Spring treatment (January through April) - If shading and cut-barring are practiced, treat a 2 foot band over the row before weeds of cane emerge.

WALNUTS (ENGLISH) - California: Use only in orchards which have been established for at least 1 year. Apply as a directed spray avoiding contact of foliage with spray or drift. As an initial treatment, apply 2 1/2 to 3 1/2 quarts per acre after the orchard has been laid up in final form (in foliage program in late fall or early winter). Subsequently, annual application of 1 1/2 to 2 1/2 quarts should be used. Alternatively, apply 1 1/2 quarts per acre in October or November and repeat in March or April.

WHEAT (WINTER): Seed bed must be well prepared before pre-emergence application. Crop injury may result if application is made to ground which is cloddy or compacted, resulting in exposed or improperly planted seed. Whenever seed bed preparation and planting are carried out during abnormally dry weather, resulting in a surface layer of dust over planted seeds, application should not be made until the dust is settled by rainfall or irrigation.

Do not use on thinly covered sub-soil areas (clay knolls), as injury may result to the crop. See Soil Limitations. Treated areas should not be replanted to any other crop within 1 year after last application as injury to the subsequent crop may result.

Do not apply post-emergence treatments where winter climate conditions have caused heaving of the wheat plants or after the wheat plants have reached the boot stage as injury to the crop may result.

Kansas, Oklahoma and Texas: Make a single post-emergence application at the rate of 1 1/4 to 1 1/2 quarts per acre. Apply in the spring as soon as wheat (fall-planted) starts to grow and before weeds are 2 inches tall. Application later than May 1 may give poor results.

Washington, Oregon and Idaho - End of Cascade Range: Make a single application at the rate of 1/4 to 1 1/4 quarts per acre.

In areas having an average annual rainfall exceeding 16 inches, Fall treatment, for early fall-planted wheat (seeded before September 10), apply 3 to 6 weeks after planting but before weeds are 3 to 4 inches tall. Treatment after October 1 has generally given best results. Application should not be made after soil freezes in the fall. Wheat planted in late October should not be treated until the following spring.

Spring treatment, apply as soon as wheat starts to grow in the spring. Treatments made prior to April 10 will usually give good results, provided weeds are less than 4 inches tall. Application later than May 1 may give poor results.

In areas having an average annual rainfall from 10 to 16 inches, for winter treatment, after wheat is planted in the fall, apply when sufficient moisture is available to germinate wheat seed. Make application before weeds are 2 inches tall and before the soil freezes. Application later than March 1 may give poor results.

NOTE: If fall-planted wheat fails to grow due to winterkill or adverse growing conditions after fall treatment with Duxton 4L, only weeds treated before November 1 may be replanted to spring wheat. Spring wheat should not be planted before April 1 and only after the soil has warmed to a depth of 4 to 6 inches prior to planting. Do not re-treat field with a second application during the same crop year or injury to the crop may result.

West of Cascade Range: Make a single application at the rate of 1/4 to 1 1/2 quarts per acre. Apply as soon as possible following planting. If wheat and weeds have emerged, apply before weeds are 3 to 4 inches tall.

STORAGE AND DISPOSAL

Prohibitions: Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment.

Pesticide Disposal: Pesticide spray mixture, or residue material, cannot be reused. Chemically reprocessed should be disposed of according to procedures approved by Federal, State or local disposal authorities.

Container Disposal: Do not reuse empty container. Triple rinse, or equivalent, and then reuse. Dispose of in an incinerator or other approved method for pesticide disposal, or in a safe place.

Drexel warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use. Drexel's warranty, nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.



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