

34704-648

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 3 2004

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ms. Glenda Haage
Loveland Products, Inc
P. O. Box 1286
Greeley, CO 80632-1285

Dear Ms. Haage:

Subject: Diuron 80 WDG Weed Killer (Update First Aid)
EPA Registration No. 34704-648
Application Dated March 23, 2004

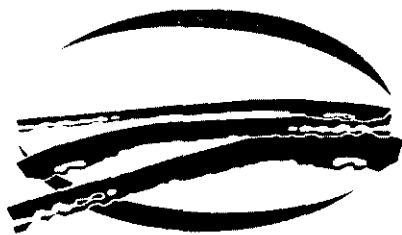
The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. At the beginning of the list of Personal Protective Equipment (PPE) within the Precautionary Statements, add the statements "Some of the 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." in addition, revise the requirement for "waterproof gloves" to a requirement for "chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride.
2. Within the list of PPE for early re-entry in the Agricultural Use Requirements box, revise the requirement for "waterproof gloves" to a requirement for "chemical-resistant gloves made of any waterproof material."
3. Under Storage and Disposal, revise "Storage" to read "Pesticide Storage".

Submit two (2) copies of your final printed label incorporating the above changes, before you release the product for shipment. Amended labeling supercedes all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

Debbie K. Walters for
James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505C)



DIURON 80 WDG ^{2/10}

WEED KILLER

WATER DISPERSIBLE GRANULE

ACTIVE INGREDIENT:	
Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea]	80%
INERT INGREDIENTS:	20%
TOTAL	100%

KEEP OUT OF REACH OF CHILDREN CAUTION

See Below For Additional Precautionary Statements.

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EPA EST. NO. 34704-MS-1

NET WEIGHT _____ POUNDS (_____ KG)

IHT

EXP 03/04

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

CAUSES EYE IRRITATION. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing dust or spray mist.

Personal Protective Equipment:

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering controls statements:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with 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.

FIRST AID

If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • 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 on skin or clothing:	<ul style="list-style-type: none"> • 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.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL:
1-800-301-7976.

ENVIRONMENTAL HAZARDS

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 by cleaning of equipment or disposal of wastes.

IMPORTANT: Injury to or loss of desirable trees or other plants may result from failure to observe the following: do not apply (except as recommended for crop use), or drain or flush equipment on or near desirable trees or other plants; or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on home plantings of trees, shrubs or herbaceous plants, nor on lawns, walks, driveways, tennis courts, or similar areas. Avoid drift of granules or spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds.

Thoroughly clean all traces of this herbicide from application equipment immediately after use. Flush tank, pump, hoses and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).

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-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 12 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, waterproof gloves, and shoes plus socks.

This herbicide should be used only in accordance with recommendations on this label, or in separate published Loveland Products Inc. recommendations available through local dealers.

Loveland Products Inc. will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Loveland Products Inc. User assumes all risk associated with such non recommended use.

Do not apply this product through any type of irrigation system.

STORAGE AND DISPOSAL

STORAGE: Store product in original container only, away from other pesticides, fertilizer, food or feed.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If bag is burned, stay out of smoke.

GENERAL INFORMATION

This product is a dispersible granule to be mixed in water and applied as a spray for selective control of weeds in certain crops and for nonselective weed control

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on non cropland areas. It is noncorrosive to equipment, nonflammable and non-volatile.

This product may be applied to soil prior to emergence of weeds to control susceptible weed seedlings for an extended period of time; the degree of control and duration of effect will vary with the amount of chemical applied, soil texture, rainfall and other conditions. Soils high in clay or organic matter require higher dosages than soil low in clay or organic matter to obtain equivalent herbicide performance. Moisture is required to activate the chemical; best results occur if rainfall (or sprinkler irrigation) occurs within 2 weeks of application.

This herbicide applied preemergence, before emergence of crop and weeds, is an effective procedure because susceptible weeds are controlled in an early, vulnerable seedling state before they compete with the crop. With favorable moisture conditions, this herbicide continues to control weeds for some time as the crop becomes better able to compete. Should weed seedlings begin to break through the preemergence treatment in significant numbers, secondary weed control procedures should be implemented; these include cultivation and postemergence herbicide application.

This product may also be used to control emerged weeds. Results vary with rate applied and environmental conditions; best results are obtained on succulent weeds growing under conditions of high humidity and temperatures of 70°F or higher. Addition of a surfactant, such as DuPont Surfactant WK or other similar herbicide surfactant approved for use on crops, to the spray (where recommended) increases contact effects of this product.

This herbicide may be used as a directed postemergence application, where spray nozzles are adjusted so the weeds are sprayed but the crop is not, on the following crops: artichoke, corn (field), cotton, sorghum (grain), sugarcane, and established plantings of apples, bananas, plantains, blueberries, caneberries, gooseberries, citrus, grapes, macadamia nuts, olives, papayas, peaches, pears, pecans, walnuts and certain tree plantings.

Under specified conditions (see Directions for Use), this herbicide without surfactant may be applied over the top of alfalfa (established, dormant or semidormant), asparagus (established), birdsfoot trefoil (established, dormant), grass seed crops (established), oats, red clover (established, dormant), sugarcane, wheat, pineapple and plumosus fern (established, mowed).

Weed species vary in susceptibility to this product and they may be more difficult to control when under stress. Combinations of this product with other herbicides (as registered) increase the number of weed species controlled; consult labels of the companion product for this and other information.

Since the effect of this herbicide varies with soils, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas. Observe all cautions and limitations on labeling of all products used in mixtures.

SELECTIVE USE IN CROPS

PREEMERGENCE USE (Germinating Weeds): This herbicide, at recommended rates, controls annual weeds such as:

Broadleaves

¾ to 1 Lb./Acre	1½ to 2 Lbs./Acre	2 to 6 Lbs./Acre
Lambsquarters	Annual groundcherry	Ageratum
Pigweed	Annual morningglory	Annual smartweed
Purslane	Chickweed	Annual sowthistle
Ragweed	Corn spurry	Corn speedwell
	Dogfennel	Dayflower
	Fiddleneck	Flora's paintbrush
	(amsinckia)	Hawksbeard
	Gromwell	Horseweed
	Knawel	Kochia
	Pennycress	Marigold
	Shepherdspurse	Mexican clover
	Tansy-mustard	Pineappleweed
	Wild buckwheat	Pokeweed
	Wild lettuce	Rabbit tobacco
	Wild mustard	Spanishneedles
		Velvetleaf (buttonweed)
		Wild radish

Grasses

¾ to 1 Lb./Acre	1½ to 2 Lb./Acre	2 to 6 Lb./Acre
arnyardgrass (watergrass)	Annual bluegrass	Annual lovegrass
Crabgrass	Annual sweet vernalgrass	Annual ryegrass
	Foxtail	Kylinga
	Rattail fescue	Orchardgrass
	Red sprangellop	Peppergrass
	Velvetgrass	Ricegrass
		Sandbur
		Seedling johnsongrass

Partial control of the following weeds usually occurs at rates stated:

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Broadleaves

1 Lb./Acre	4 Lbs./Acre
Annual morningglory	Horsenettle
Cocklebur	
Prickly sida (teaweed)	
Sesbania	
Sicklepod	

Grasses

4 Lbs./Acre	8 to 10 Lbs./Acre
Quackgrass	Guineagrass
	Maidencane
	Pangolagrass

POSTEMERGENCE USE (Emerging Seedling Weeds)

This product at recommended rates, controls annual weeds such as annual morningglory, barnyardgrass (watergrass), crabgrass, crowfoot, goosegrass, pigweed and purslane. Addition of surfactant to the spray (where recommended) increases contact effects of this product. Best results are obtained on succulent weeds growing under conditions of high humidity and temperatures of 70° F or higher.

EQUIPMENT-SPRAY VOLUMES AND PRESSURES

Use a boom power sprayer properly calibrated to a constant speed and rate of delivery. Openings in screens should be equal to or larger than 50 mesh. Continuous agitation in the spray tank is required to keep the material in suspension. Agitate by mechanical or hydraulic means; if by-pass or return line is used, it should terminate at bottom of tank to minimize foaming. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

For preemergence application, use 25 to 40 gals. per acre and spray pressure of 30 to 40 psi. For postemergence application, use sufficient volume (min. 25 gals. per acre) for thorough coverage of weed foliage; use spray pressure of 20 to 25 psi to keep spray drift to a minimum.

Aerial: For alfalfa, asparagus, barley (winter), cotton (preplant or preemergence only), grass seed crops, pineapple, sugarcane and wheat (winter), application may be made by aircraft (5 to 10 gals. per acre); avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur. Where land is bedded, make application parallel to rows.

NOTE: With fixed-wing aircraft or helicopter application, an exactly even swath deposition cannot be achieved, and consequently crop injury or herbicide nonperformance may result wholly or in part. Do not apply by air during periods of thermal inversion.

SPRAY PREPARATION

Mix proper amount of this product into necessary volume of water; where use of surfactant is recommended, dilute with 10 parts of water and add as last ingredient to nearly full tank.

USE RATES

All dosages of this herbicide are expressed as broadcast rates; for band treatment, use proportionally less. For example, use ½ of the broadcast rate when treating a 14" band where row spacing is 42". Where a range of dosage is given, use the lower rate on coarse textured soils (low in clay or organic matter) and the higher rate on the fine textured soils (high in clay or organic matter); for postemergence application, use the lower rate on smaller weeds and the higher rate on larger weeds.

SOIL LIMITATIONS

Crop injury may result from failure to observe the following: Unless otherwise directed, do not use on sand, loamy sand, gravelly soils or exposed subsoils; nor on pecans where organic matter is less than ½%; nor on alfalfa, apples, artichoke, barley (winter), bermudagrass pasture, citrus, cotton, grapes, oats, olives, papayas, peaches, pears, plumosus fern, sorghum, sugarcane, walnuts and wheat (winter) where organic matter is less than 1%; nor on blueberries, birdsfoot trefoil, caneberries, gooseberries, macadamia nuts and peppermint where organic matter is less than 2%. Preemergence weed control will be reduced on high organic matter soils (greater than 5%, such as peat or muck).

REPLANTING

Unless otherwise directed, do not replant treated areas to any crop within 2 years after last application as injury to subsequent crops may result.

FIELD CROPS (See Soil Limitations)

A good seedbed must be prepared before preemergence use of this product as crop injury may result if application is made to ground which is cloddy or compacted resulting in improperly planted seed. Plant seed to depth specified. Unless otherwise directed, surface of the soil should not be cultivated or disturbed after application of this herbicide and before emergence of the crop as weed control may be reduced and crop injury may result. However, if moisture is insufficient to activate the herbicide, a shallow cultivation (rotary hoe preferred) should be made after emergence of crops while weeds are small enough to be controlled by mechanical means.

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ALFALFA

Treat only strands established 1 year or more. Do not apply to seedling alfalfa nor to alfalfagrass mixtures; do not apply to alfalfa under stress from disease, insect damage, shallow root penetration (such as on shallow hard pans), alkali spots; nor to flooded fields as crop injury may result. Do not spray on snow-covered or frozen ground.

Idaho, Oregon, Washington: Use 1½ to 3 lbs. per acre; for control of volunteer alfalfa, use 4 lbs. per acre. Apply in fall after alfalfa becomes dormant but no later than mid-December.

California (Dormant and Semi-Dormant Varieties): Use 1½ to 3 lbs. per acre; for control of volunteer alfalfa, use 4 lbs. per acre. Apply in fall or winter after alfalfa becomes dormant or semi-dormant, but before growth begins in the spring. Crop injury may result if application is made to actively growing alfalfa. For best results, apply before weeds have emerged or become established (2" in height or diameter). Control of established weeds is improved by applying this product with a suitable contact herbicide registered for such use. Sufficient rainfall for soil activation of this product is unlikely in California after February 1. Treated areas may be replanted to any crop after one year from last application if rate does not exceed 2 lbs. per acre.

Arizona, Nevada: Use 1½ to 3 lbs. per acre; apply in fall after alfalfa becomes dormant but no later than January.

Eastern Colorado, Kansas: For control of tansymustard, apply 1 lb. per acre shortly after emergence of mustard in fall or winter; use 2 lbs. per acre if weeds are 2" to 4" in height. Alternatively, if other annual weeds are present, apply 2 to 3 lbs. per acre in February or March.

Other Areas Where Alfalfa Becomes Winter Dormant: Use 1½ to 3 lbs. per acre (1½ to 2 lbs. per acre East of Appalachian Mountains). Apply in March or early April, but before spring growth begins.

ARTICHOKE-California

Apply 2 to 4 lbs. per acre in late fall or early winter after the last cultivation. Apply before weeds germinate or to emerging seedlings. Direct spray to cover the area between the rows and at the base of artichoke plants, keeping contact with crop plants at a minimum.

ASPARAGUS

Apply as a band or broadcast treatment. Do not apply to young plants during the first growing season (except as noted below), nor to newly seeded asparagus, nor on plants with exposed roots as severe injury may result. Preemergence weed control will be reduced on high organic matter soils (greater than 5%).

Established Plantings: On light sandy soils and other soils low in clay or organic matter, apply 1 to 2 lbs. per acre. On soil high in clay or organic matter, use 2 to 4 lbs. per acre. Two applications may be used; the first application should be made before weeds become established but no earlier than 4 weeks before spear emergence and no later than the early cutting period (if weeds are controlled into the cutting period by cultural practices, application may be delayed until immediately after the last cultivation); a second application may be made immediately following completion of harvest provided rainfall is expected. When two applications are used in one session, do not exceed 3 lbs. per acre per application. In Washington (irrigated crop), apply a single treatment of 4 lbs. per acre. If treatment is delayed until late winter or early spring, incorporation of the chemical in the top 1" to 2" of soil may substitute for lack of rain to activate the herbicide.

Newly Planted Crowns—California (San Joaquin Delta): Make a single application of 2 to 4 lbs. per acre on soils high in clay or organic matter; use the lower rate on clay loams and the higher rate on peat soils. Do not use on soils containing less than 2% organic matter. Soil must be settled by rainfall or irrigation prior to treatment. Do not treat crowns planted to a depth of less than 2".

BARLEY, WINTER (Drill-Planted)—Western Oregon and Western Washington: Make a single application of 1½ to 2 lbs. per acre as soon as possible after planting but before emergence of barley. Do not replant treated areas to any crop within 1 year after last application as injury to subsequent crops may result.

BIRDSFOOT TREFOIL (Lotus)—Western Oregon

Treat only strands established for at least 1 year; do not apply to seedling trefoils as injury may result. Make a single application of 2 lbs. per acre when trefoil is dormant (October 15 to December 15). Do not replant treated areas to any crop within 1 year after last application as injury to subsequent crops may result.

CORN (Field)

Postemergence—Make a single application of ¾ lb. per acre in combination with non pressure nitrogen solution. If nitrogen solution is not used, apply 1 lb. per acre; add 1 pt. surfactant per 25 gals. of spray. Apply as a directed spray when corn is at least 20" high and weeds are no taller than 3". DO NOT APPLY OVER TOP OF CORN. Do not replant to any crop within 1 year, except that cotton, corn and grain sorghum may be planted the spring following treatment.

Preemergence—Arkansas, Louisiana, Mississippi and Tennessee: Make a single application of ¾ to 1 lb. per acre as a broadcast or band treatment after planting but before corn emerges. Plant corn at least 1½" 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

During a single crop season, do not exceed the following amounts of this product per acre as injury to subsequent crops may result: 1 lb. on loamy sand; 1½ lbs. on sandy loam; 2 lbs. on clay loam; 2¾ lbs. on clay. Injury may occur if this herbicide is used in conjunction with soil-applied organic phosphate pesticides. Do not allow livestock to graze treated cotton.

Preplant—Arizona and California: Use this product alone, or apply as a separate operation following preplant broadcast treatment with TREFLAN® or Trifluralin (incorporated according to directions on TREFLAN or Trifluralin label). Apply DIURON 80 WDG WEED KILLER as a broadcast spray after beds are formed, preirrigated, and final seedbeds prepared. Prior to planting, drag-off the tops of the beds and plant in moist soil not treated with this product. Treated soil is returned to the bed after planting when irrigation furrows are reformed after cotton has emerged. If more than two furrowing-out operations are made prior to lay-by, or deep furrows are made early, weed control may be reduced in furrow bottoms. Use at the following rates:

DIURON 80 WDG Alone: 1 to 2½ lbs. per acre.

DIURON 80 WDG Following TREFLAN or Trifluralin:

Soil Texture	Product Per Acre-Preplant	
	TREFLAN or Trifluralin 4 lbs./gal.	DIURON 80 WDG 5 lbs./gal.
Sandy loam, loam, silt loam, silt ... 1 pt.	0.8 pt.	¾ to 1 lb.
Sandy clay loam, clay loam, silty clay loam, sandy clay, clay ... 1½ pts.	1.2 pts.	1 to 1¼ lbs.

Note: Seedling disease may weaken plants and increase the possibility of injury from the use of TREFLAN or Trifluralin followed by DIURON 80 WDG WEED KILLER. These treatments should be used only in conjunction with a standard fungicide seed treatment plus a good supplemental soil fungicide program such as Captan-PCNB mixture.

Preemergence—U.S., except Arizona, California, and areas west of Interstate 35 or 35W in Texas and Oklahoma: Use this product alone or apply as a separate operation following preplant treatment with TREFLAN or Trifluralin. Apply DIURON 80 WDG WEED KILLER after planting but before cotton emerges. Do not treat cotton in deep furrows as crop injury may result; use only where cotton is planted on flat or raised seedbeds.

Shallow incorporation (no deeper than ¼") with a rotary hoe or similar equipment following planting usually improves results especially during dry weather. A wide press wheel should be used on the planter to provide a level seedbed for subsequent early season postemergence treatments. If moisture is insufficient to activate this product or if soil becomes crusted before crop emerges, a shallow rotary hoeing (no deeper than ¼") should be made before weeds become established.

DIURON 80 WDG Alone: Make a single application as a broadcast or band spray, using the following broadcast rates; for band treatment, use proportionately less.

Soil Texture**	Lbs. DIURON 80 WDG Per Acre
Loamy sand	¾
Sandy loam, loam, silt loam, silt	1
Sandy clay loam, clay loam, silty clay loam, sandy clay	1¼
Silty clay, clay	2

** Do not use on soils with less than 1% organic matter as crop injury may result.

DIURON 80 WDG Following TREFLAN or Trifluralin Preplant: Apply TREFLAN or Trifluralin prior to planting as a broadcast or band treatment; incorporate according to directions on TREFLAN or Trifluralin label. As a separate operation, apply this product as a band treatment (14" to 20" wide) after planting but before cotton emerges. Use at the following broadcast rates; for band treatment, use proportionately less. See "Note" under Preplant above.

Soil Texture**	Product Per Acre	
	TREFLAN or Trifluralin 4 lbs./gal.	Preplant DIURON 80 WDG 5 lbs./gal.
Loamy sand	½ pt.	0.4 pt. ¾ lb.
Sandy loam, loam, silt loam, silt ... 1 pt.	0.8 pt.	1 lb.
Sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, clay	1½ pts.	1.2 pts. 1¼-2 lbs.

** Do not use on soils with less than 1% organic matter as crop injury may result.

Postemergence—U.S.: Apply only as a directed spray to cover weed foliage; adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. DO NOT SPRAY OVER TOP OF COTTON.

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Early Season—Apply when cotton is at least 6" tall and when weeds are actively growing and do not exceed 2" in height. Apply as a band treatment as following rates; for each 25 gals. of spray, add 1 pt. of surfactant. Two applications may be made if needed.

Early Season—Arizona: Apply when cotton is at least 6" tall, and when seedling annual morningglory and Wright groundcherry are actively growing and do not exceed 2" in height. Apply as a band treatment at the rate of ¼ to ½ lb. per acre; for each 25 gals. of spray, add 1 pt. of surfactant. Two applications may be made if necessary.

Weed Problem (Up to 2" Tall)	Lbs. DIURON 80 WDG Per Acre (Broadcast Basis)
Annual grasses	½
Pigweed	¼

For control of seedling perennial grasses such as johnsongrass and partial control of nutsedge or when weed growth is under drought stress or as high as 4", add 2 to 3½ lbs. disodium methanearsonate (DSMA; 63% anhydrous or equivalent) to above spray mixture. If DSMA is used, do not apply after first bloom.

Late Season (Lay-By)—Apply 1 to 1½ lbs. per acre (1 to 2 lbs. in Arizona and California) when cotton is at least 12" tall (at least 20" tall for Pima S-2). For control of germinating weed seedlings, apply to soil beneath cotton plants and between rows immediately after last cultivation. In irrigated cotton, best 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. Alternatively, for control of emerged annual weeds (up to 4" in height) at lay-by time, make a single application in combination with surfactant (1 pt. per 25 gals. spray), or use ½ to ¾ lb. DIURON 80 WDG WEED KILLER (plus surfactant) per acre and repeat later if needed.

Replanting: If initial seeding fails to produce a stand, cotton may be replanted in soil treated preplant or preemergence with this product, alone or following TREFLAN or Trifluralin. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation such as discing; do not relist nor move soil into the original drill area. Plant seed at least 1" deep. Do not retreat field with a second preplant or preemergence application during the same crop year as injury to the crop may result.

Subsequent Crops:

DIURON 80 WDG-Type of Application	Crops That May Follow Treated Cotton
Band preemergence or postemergence	Any crop 4 months after last application
Band preemergence plus postemergence —or—	Cotton, soybeans, corn or grain sorghums (not sorgos 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 preemergence (and preplant) —or—	
Broadcast preemergence plus band postemergence	

DIURON 80 WDG Type of Application	Crops That May Follow Treated Cotton
Broadcast postemergence (lay-by)	Cotton, corn, grain sorghums (not sorgos 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 subse- quent crops may result.

For subsequent crops in fields where TREFLAN or Trifluralin is used, follow instructions on the TREFLAN or Trifluralin label.

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GRASS SEED CROPS (Perennial): Except as noted, apply only to established plantings at least 1 yr. old.

Colorado, Kansas, New Mexico, and Oklahoma: On sand bluestem, side oats grama and switchgrass, apply 2 to 3 lbs. per acre during the dormant period shortly before weed seedlings emerge. Do not apply after crop begins growth in the spring as crop injury may result. In fields where ash residues have accumulated from burning straw, use 3 lbs. per acre; spread unburned chaff or straw with a harrow or chopper before application.

Western Oregon: On alta fescue, Astoria bentgrass, Highland bentgrass, Kentucky bluegrass (Merion bluegrass) and orchardgrass, apply 2 to 4 lbs. per acre between October 1 and November 15. In fields where ash residues have accumulated from burning straw, use 3 to 4 lbs. per acre; spread unburned chaff or straw with a harrow or chopper before application. If perennial velvetgrass (*Holcus ianatus*) is a problem, use 4 lbs. 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 alta fescue, Kentucky bluegrass, and orchardgrass may be treated the following fall provided the crop is planted before April 1 and treatment is not applied before October 15; use 2 lbs. per acre. 5/10

Oregon: For use in newly planted bentgrass, Chewing fescue, Kentucky bluegrass, perennial ryegrass, orchardgrass and tall fescue. During planting operation, spray AQUA NU-CHAR₂ or GRO-SAFE₃ or other suitable brands of activated charcoal as a 1" band on soil surface at rate of 300 lbs. per acre (broadcast basis; equivalent to 15 lbs. per acre of crop where row spacing is 20"). Mount nozzles to apply directly over seed rows to prevent crop injury. Follow with this herbicide as a single broadcast spray at rate of 2½ to 3 lbs. per acre; apply as soon as possible after planting but before crops or weeds emerge and before rains or sprinkler irrigation. Fall or spring plantings may be treated; best results usually occur with early fall plantings. Treatment will not control downy brome or wild oats.

Washington: For preemergence weed control in newly seeded perennial grass seed crops.

DIURON 80 WDG WEED KILLER is recommended for use in newly planted bentgrass, perennial ryegrass, tall fescue, chewing fescue, Kentucky bluegrass, and orchardgrass fields for the selective control of weeds such as annual ryegrass, rattail fescue, annual bluegrass (*Poa annualis*), groundsel, and mustard in western Washington. Treatment will not control wild oats or downy brome.

Before Herbicide Treatment—Prepare a smooth, firm clod-free seed bed before planting. During the planting operation, spray AQUA NU CHAR or GRO-SAFE (activated charcoal) as a 1" band on soil surface at rate of 300 lbs. per acre (broadcast basis; equivalent to 15 lbs. per acre of crop where row spacing is 20"). Mount nozzles to apply the activated charcoal directly over seed rows to prevent crop injury.

Herbicide Treatment—Make a single application of this herbicide as a broadcast spray at the rate of 2½ to 3 lbs. per acre; use the lower rate on lighter soils. Apply as soon as possible after planting but before crop or weeds emerge, and before rains or sprinkler irrigation. Use a fixed-boom power sprayer properly calibrated to a constant speed and rate of delivery. Avoid overlapping of spray swath, and shut off boom while starting, turning, slowing, or stopping or injury to the crop may result. Continuous agitation is required to keep the material in suspension. Treatment may be applied to fall or spring plantings of grass seed crops; best results usually occur with early fall plantings. At least 1" of overhead moisture (rain-fall or sprinkler agitation) is necessary within 2 weeks after treatment to activate the herbicide.

NOTES: Do not replant treated areas to any crop within 2 years after last application as injury to subsequent crops may result.

2 Reg. trademark of Westvaco Corp.

3 Reg. trademark of ICI Americas, Inc.

OATS (Drill-Planted)

Do not replant treated areas to any crop within one year after last application as injury to subsequent crops may result.

Spring Oats—Idaho, Eastern Oregon, Eastern Washington: Use in areas where average annual rainfall exceeds 16". Make a single application of 1 to 1½ lbs. per acre after planting, either before or after oats emerge but within 6 weeks of planting. Best results are usually obtained when application is made 3 to 4 weeks after planting. Apply before weeds are 3" to 4" tall.

Winter Oats and Mixtures with Peas or Vetch—Western Oregon and Western Washington: Make a single application of 1½ to 2 lbs. per acre as soon as possible after planting but before emergence of the crop.

AUSTRIAN FIELD PEAS—WESTERN OREGON

For selective control of certain weeds in Austrian field peas in western Oregon. Apply 1½ to 2 lbs. per acre as broadcast spray with air on ground equipment as soon as possible after planting but before crop emerges for control of weeds such as chickweed, shepherdspurse, wild mustard, fiddleneck, lambsquarters, pigweed and annual bluegrass. Use the lower rate on coarse-textured soils and the higher rate on fine-textured soils.

NOTES: Do not use this herbicide on sand, sandy loam, gravelly soils or exposed subsoils or on soils having less than 1% organic matter as crop injury may result. Do not replant treated area to another crop within one year of application. Crop injury may result if severe winter stress, disease or insect damage to the crop follows application.

PEPPERMINT—Pacific Northwest

Apply 3 lbs. 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.

RED CLOVER—Western Oregon

Make a single application of two pounds per acre on established red clover stands (at least 9 months). Apply this product when red clover is dormant (October 15 to December 15). Do not apply to seedling red clover, and do not replant treated area to any crop within one year after last application.

Treatment will control annual weeds such as bluegrass, chickweed, hawksbeard, rattail fescue, rye grass, and velvetgrass.

SORGHUM (GRAIN)—Southwestern States

Apply ¼ to ½ lb. per acre; add 1 pt. surfactant per 25 gals. of spray. Apply as directed postemergence broadcast or band spray after sorghum is 15" tall to control weeds 2" to 4" in height. DO NOT SPRAY OVER TOP OF SORGHUM. Use the

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lower rate on broadleaved weeds up to 2" tall; use the higher rate on grasses up to 2" and broadleaved weeds up to 4" tall. When the lower rate is used, a second application may be made if needed provided the amount applied in one crop year does not exceed ½ lb. per acre. Treatment of weeds under drought stress is usually ineffective.

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

SUGARCANE

To prevent possible crop injury on new cane varieties, tolerance to this herbicide should be determined prior to adoption as field practice. Do not treat sugarcane growing on thinly covered subsoils or rocky areas as crop injury may result. Temporary chlorosis of the crop may result from application over emerged cane; to minimize chlorosis, use directed postemergence sprays.

Florida: Preemergence—For high organic soils, apply 2 to 4 lbs. per acre as a broadcast or band spray prior to weed emergence after planting or after harvesting plant crop (for ratoon crop). **Postemergence**—Make 1 to 2 applications of 2 lbs. per acre as needed by directed spray inter-row. Alternatively, for panicum control, make up to 3 applications of ½ to 1 lb. per acre as directed spray after cane has emerged but before panicum exceeds 2" in height; add 1 qt. surfactant per 100 gals. of spray. Adjust nozzle to spray beneath cane plants and beneath rows to cover weed foliage and to minimize contact of cane leaves with spray drift. Do not apply more than 6 lbs. total per acre between planting (or ratooning) and harvest.

Hawaii: For selective control of weeds, such as crabgrass, foxtail, ryegrass, pigweed, purslane, Spanish needle, ragweed, chickweed, mustard and lambsquarter.

Apply 4 to 8 lbs. per acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop (for ratoon crop). A second and third application of 2 to 4 lbs. per acre may be made as a broadcast spray over emerged cane or by directed spray inter-row. Additional applications of 4 to 6 lbs. per acre may be made as directed spray inter-row.

If weeds are emerged, add a surfactant (such as Surfactant WK, "OSAMUL" 95 or "STEROX" SK) to the spray at the rate of 1 to 2 qts. per 100 gals. and apply as a directed spray. DO NOT SPRAY OVER THE TOP OF CANE.

NOTE: To prevent possible crop injury on new cane varieties, tolerance to DIURON 80 WDG WEED KILLER should be determined prior to adoption as field practice. Do not treat sugarcane growing on thinly covered subsoils or rocky areas as crop injury may result. Do not apply more than 20 lbs. per acre total between planting (or ratooning) and harvest. Do not apply within 8 months of harvest.

Puerto Rico: Apply 4 to 8 lbs. per acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop (for ratoon crop). A second and third application of 2 to 4 lbs. 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 (such as Surfactant WK, "OSAMUL" 95 or "STEROX" SK) to the spray at the rate of 1 to 2 qts. per 100 gals. and apply as directed spray. DO NOT SPRAY OVER THE TOP OF CANE.

Do not apply more than 3 treatments nor more than 10 lbs. total per acre between planting (or ratooning) and harvest. Treated areas may be planted to sugarcane or pineapple one year after last application.

Louisiana: Use on plant cane seeded on fallowed ground. Make a single application of 3 to 3½ lbs. per acre at either of the following times. Fall Treatment (August through October)—Treat a 2 ft. band over the row after planting of cane, but before weeds or cane emerge. Spring Treatment (January through April)—if shaving and off-barring are practiced, treat a 2 ft. band over the row before weeds or cane emerge.

Texas: A tank mixture of DuPont VELPAR® Weed Killer + DIURON 80 WDG WEED KILLER is recommended for selective weed control in sugarcane. Since the effect on sugarcane varies with soils, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas. Tolerance of new cane varieties should be determined prior to adoption as field practice. Moisture is necessary to activate these herbicides. Best results are obtained when weeds are less than 2 inches in height or diameter and actively growing, soil is moist at time of application, and ½ to 1 inch of rainfall occurs within 2 weeks after application. Foliar application to weeds is most effective under conditions of high temperature (above 80°F), high humidity, and good soil moisture. Symptoms usually occur within 2 weeks after application under these conditions, while 4 to 6 weeks may be required when weather is cool. If rainfall after treatment is inadequate to promote root uptake, weeds may recover from foliar effects and continue to grow. Extremely heavy rainfall after application may result in poor weed control and/or crop injury, especially if the application is made to dry soil.

Preemergence Use (Germinating Weeds): VELPAR® plus DIURON 80 WDG WEED KILLER tank mixture at the recommended rates controls barnyardgrass (watergrass), Colorado grass (Texas panicum), crabgrass, lambsquarters, morningglory, pigweed, purslane, and sunflower, and provides partial control of ageratum, foxtail, goosegrass, guineagrass, hairy threeiobe, johnsongrass (from seed), junglerice, mustard (wild), panicum (broadleaf and browntop), aaspalum (dallis-

grass), popo, signalgrass, sowthistle, sprangletop, and spurge (prostrate and graceful). 6/10

Postemergence Use (Emerged Seedling Weeds): VELPAR® plus DIURON 80 WDG WEED KILLER tank mixture at recommended rates controls amaranth, crabgrass, Colorado grass (Texas panicum), Flora's paintbrush, junglerice, morningglory, pigweed, popo, purslane, and spurge, and provides partial control of ageratum, guineagrass, mustard (wild), panicum (broadleaf and browntop), signalgrass, sowthistle, and sunflower.

Make a single tank mix application of ½ lb. VELPAR® plus 1½ to 2 lbs. DIURON 80 WDG WEED KILLER per acre as a preemergence or directed postemergence application. For plant cane, apply before the cane emerges (preemergence) or as directed lay-by treatment. For stubble cane, apply preemergence, early postemergence (sugarcane up to 3-leaf stage), or as directed lay-by treatment.

SPRAY PREPARATION

Prior to treatment, calibrate equipment to insure uniform application. Continuous agitation in the spray tank is required to keep the material in suspension. Avoid overlapping and shut off spray booms while starting, turning, slowing and stopping or injury to the crop may result.

Apply in at least 25 gals. of spray per acre using ground equipment or 5 to 10 gals. per acre using aerial equipment. Add the proper amount of VELPAR® to the necessary volume of water in the spray tank using agitation vigorous enough to prevent settling for approximately 10 minutes to dissolve the product, then add the proper amount of DIURON 80 WDG WEED KILLER. For directed postemergence applications, add 1 quart of a nonionic surfactant per 100 gals. of water as the last ingredient.

NOTE: Because of injury to sugarcane may result, do not use on cane which shows poor vigor because of insect, disease or winter injury, or shows symptoms of other stress conditions such as drought stress; do not add surfactant if applied over the top of cane; do not use on gravelly or rocky soils, thinly-covered subsoils, nor on coarse-textured soils (sands to sandy loams) with less than 2% organic matter nor on any soils with less than 1% organic matter. Temporary chlorosis of the crop may result from application over emerged cane. Do not apply over the top of actively growing cane. Applications during active cane growth should be directed to cover the weeds and soil while minimizing crop contact. Do not use on varieties which are known to be susceptible to weed killers. Do not plant any crop other than sugarcane within 18 months of the last application. Do not feed sugarcane forage to livestock. **IMPORTANT: BEFORE USING VELPAR® OR DIURON 80 WDG WEED KILLER, READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABELS.**

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WHEAT, WINTER (Drill-Planted)

Crop injury may result where severe winter stress, disease or insect damage follows application; winter-sensitive varieties such as McDermid and Hyslop may be less tolerant of this product than winter-hardy varieties such as Gaines and Nugaines. Crop injury may also result from failure to observe the following: Do not use on sand or loamy sand soils, nor on gravelly or sandy loams low in organic matter (less than 1%), nor on thinly covered or exposed subsoil areas (clay knobs); do not treat wheat planted less than 1" deep; do not treat wheat where winter climatic conditions have caused "heaving" of plants; do not treat wheat plants lacking in vigor due to poor emergence, insect damage, disease, high alkalinity or other causes; do not apply after wheat has reached the "boot" stage of maturity; do not use with surfactants. Do not replant treated areas to any other crop within 1 year after last treatment (except as noted) as injury to subsequent crops may result.

Idaho, Oregon and Washington—East of Cascade Range:

Areas Where Average Annual Rainfall Exceeds 16 Inches: Make a single application of 1 to 1½ lbs. per acre.

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" 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. Treatment made prior to April 10 will usually give good results provided weed growth is less than 4" tall. Application later than May 1 may give poor results.

Alternatively, make a single application of ½ to 1 lb. of this product plus ¼ lb. bromoxynil per acre as a tank mixture, either in the fall after wheat has emerged but before soil freezes or in the spring as soon as soil thaws; apply before weeds are 2" tall or across.

Areas where Average Annual Rainfall is 10 to 16 inches: After wheat is planted in the fall, make a single application of 1 to 1½ lbs. per acre when sufficient moisture is available to germinate wheat seed. Apply before soil freezes and before weeds are 2" tall. Application later than March 1 may give poor results.

NOTE: If fall-planted wheat fails to grow due to winter kill or adverse growing conditions after fall treatment, only fields treated before November 1 may be replanted to spring wheat. Spring wheat should not be planted before April 1, and only after deep discing and plowing to a depth of 4" to 6" prior to planting. Do not retreat field with a second application during the same crop year as injury to the crop may result.

Oregon and Washington—West of Cascade Range: Make a single application of 1½ to 2 lbs. per acre as soon as possible after planting; if wheat and weeds have emerged, apply before weeds are 3" to 4" tall. Alternatively, apply a tank of mixture

of this product plus bromoxynil as detailed above for "East of Cascade Range."

Other Areas: Make a single application in the spring as soon as wheat (fall-planted) starts to grow and before weeds are 2" tall. Application later than May 1 may give poor results.

Central Plains and Midwest: Use 1 to 2 lbs. per acre.

Kansas, Oklahoma and Texas: Do not use on sand or sandy loam soils. Use 1 lb. per acre on silt and silt loam soils and 1½-2 lbs. per acre on clay, clay loam, and silty clay loam soils.

Northeast: Use 1 to 1½ lbs. per acre.

FRUIT AND NUT CROPS (See Soil Limitations)

Unless otherwise directed, make a single application per year as a directed spray, avoiding contact of foliage and fruit with spray or drift. Do not graze livestock in treated orchards or groves.

APPLES:

Use this herbicide alone, or apply as a tank mixture with Du Pont SINBAR® Herbicide.

DIURON 80 WDG Alone—Use only under trees established in the orchard for at least 1 year; do not treat varieties grafted on full-dwarf root stocks. Apply 4 lbs. per acre in the spring (March through May). In the Far West, treatment may be made in winter (December through February), or apply 2 lbs. per acre as a postharvest treatment followed by 2 lbs. in the spring.

DIURON 80 WDG + SINBAR—Use only under trees established in the orchard for at least 2 years. Apply either in the spring or after harvest in the fall before weeds emerge or during early seedling stage of weed growth.

Soil Texture	Lbs. Product Per Acre	
	1 to 2% Organic Matter	More than 2% Organic Matter
	DIURON 80 WDG + SINBAR	DIURON 80 WDG + SINBAR
Sandy loam	1 + 1	1½ + 1½
Loam, silt loam, silt	1½ + 1½	2 + 2
Clay loam, clay	2 + 2	2 + 2

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4" to 6" above waterline), apply only as a band treatment. Do not treat trees planted in the bottom of irrigation furrows, nor trees grown under flat or basin irrigation, as injury to trees may result. Where complete weed control to harvest is desired, additional weed control measures may be required during the growing season.

Georgia—Apply 2 to 3 lbs. per acre in the spring. Repeat application in the fall but do not use more than 4 lbs. per acre per year. Add surfactant at 1 pt. per 25 gals. spray mixture to improve control of small, emerged weeds.

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BANANAS AND PLANTAINS—New Plantings

To control annual weeds, apply 1½ to 3 lbs. per acre after planting but before weeds emerge. Do not apply to loose soil directly over the planting material.

Established Plantings: For control of annuals and for top-kill of perennials such as bermudagrass, birdseed grass and guineagrass, apply 3 to 6 lbs. per acre plus 1 pt. surfactant per 25 gals. of spray; avoid contact of plants with spray or drift as injury may result. When tall, dense weed growth is present, remove weed growth before application. If application is made to soil free of weeds, omit the surfactant from the spray. Repeat treatment as needed, but do not apply more often than 6-week intervals nor more than a total of 12 lbs. per acre (broadcast basis) in a 12-month period.

NOTE: Do not replant treated areas to any crop within 2 years after last application as injury to subsequent crops may result, except that sugarcane or pineapple may be planted one year after last application.

Arkansas—Make a single band or broadcast application of 2 lbs. per acre, either in the spring after burning of dried vegetation or in the fall after harvest. For spring application, apply just prior to germination and growth of annual weeds.

Best results are obtained if the herbicide is moved into the soil by moisture (rainfall or sprinkler irrigation) within 2 weeks of application.

Apply uniformly with a fixed-boom sprayer, properly calibrated to a constant speed and rate of delivery. Use sufficient water to provide thorough and uniform coverage of the ground. Spray booms must be shut off while starting, turning, slowing, or stopping, or injury to the crop may result. Avoid contact of foliage and fruit with spray or mist.

BLUEBERRIES, CANEBERRIES AND GOOSEBERRIES

Use only in fields which have been established for at least 1 year. Do not apply to berries interplanted with fruit trees; do not apply to plants whose roots are exposed as injury may result. Apply as a band treatment at base of canes or bushes; for spring application, apply before germination and growth of annual weeds.

Georgia—Blueberries: Apply 1½ to 2 lbs. per acre in the spring and repeat treatment after harvest in the fall. Add surfactant at 1 pt. per 25 gals. spray mixture to improve control of small, emerged weeds.

Indiana, Michigan and Ohio—Blueberries: Apply 2 to 4 lbs. per acre in late spring; alternatively, apply 2 lbs. per acre in the fall and repeat at same rate in the spring.

Raspberries: Apply 3 lbs. per acre in the spring.

Massachusetts—Blueberries: Apply 2 lbs. per acre in late spring.

New Jersey—Blueberries: For control of winter annuals, apply 2 lbs. per acre in October, November or December, or a single application of 2½ lbs. per acre may be applied in early to mid spring.

California-Raspberries, Blackberries, Boysenberries, Dewberries and Loganberries: For control of winter annuals, apply 2 lbs. per acre in October or November; repeat at same rate in late spring to control summer annuals. A single application of 3 lbs. per acre in January or February will control both winter and summer annuals in some areas, but the separate fall and spring schedule is preferred.

Western Oregon and Western Washington—Blueberries, Caneberries and Gooseberries: Use same schedule as recommended for California.

DIURON 80 WDG WEED KILLER + SINBAR (New Jersey & Maine)—Blueberries—For control of annual and perennial weeds such as cinquefoil, crabgrass, dogfennel, fall panicum, hawkweed, panicgrass, red root (*Lachnanthes caroliniana*), red sorrel, annual sedge, perennial ryegrass, and quackgrass.

Use only in blueberry plantings that have been established in the field for at least one year. Make a single band or broadcast application, either in the spring after burning of dried vegetation or in the fall after harvest. Apply before weeds emerge or during the early seedling stage of weed growth at the following broadcast rates:

SINBAR + DIURON 80 WDG WEED KILLER - TANK MIXTURE

Soil Texture	Lbs. Product Per Acre	
	1 to 3% Organic Matter	More than 3% Organic Matter
	SINBAR + DIURON 80 WDG	SINBAR + DIURON 80 WDG
Sand, Loamy Sand	Do Not Use	2 + 2
Sandy Loam	2 + 2	2½ + 2
Loam, Silt		
Loam, Silt, Sandy Clay, Sandy Clay	2½ + 2	3 + 2
Loam		
Silty Clay, Silty Clay		
Loam, Clay, Clay Loam	3 + 2	3 + 2

Apply uniformly by air or with a fixed-boom sprayer properly calibrated to a constant speed and rate of delivery. Use sufficient water (minimum of 25 gals. per acre with ground equipment or 5 to 10 gals. per acre by aircraft) to provide thorough and uniform coverage of ground. Spray booms must be shut off while starting, turning, slowing, or stopping, or injury to the crop may result. Avoid contact of foliage and fruit with spray or mist.

NOTE: Do not use on soils containing less than 1% organic matter, nor on gravelly soils or eroded areas where subsoil or roots are exposed, nor on plants that are diseased or lacking in vigor, as injury to the plants may result. SINBAR-treated areas may be planted to alfalfa, apples, blueberries, citrus, mint, peaches, strawberries, and sugarcane one year after last application. Do not replant to other crops within two years after last application as injury to those crops may result. Do not replant areas treated with SINBAR + DIURON 80 WDG WEED KILLER to crops other than blueberries within two years after application, as injury to those crops may result.

CITRUS

Use only under trees established in the grove for at least 1 year. Time application as indicated for specific areas, except application may be made any time of the year where sprinkler or flood irrigation can be timed to activate the herbicide. Established perennial weeds require other special control procedures. Do not apply under citrus trees that have been subjected to freezing within 6 months.

Arizona (except Yuma area) and California (except Imperial and Coachella Valleys): Apply 3 to 4 lbs. per acre shortly after grove has been laid-up in final form (nontillage program) in late fall or early winter. Alternatively, apply 2 lbs. per acre in

DIURON 80 WDG
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October or November and repeat at the same rate in March or April. Subsequent annual applications of 2 to 3 lbs. per acre will usually give adequate weed control.

Florida and Puerto Rico: Make a single application of 4 to 8 lbs. per acre, or apply 3 to 4 lbs. per acre followed by the same rate 4 to 6 months later. On bearing citrus, apply any time when seasonal rains are expected; on nonbearing trees, apply when winter banks are pulled down.

For control of guineagrass, looetrefe, maidencane, paragrass, primrose willow and seamyrtle in ditches adjacent to citrus groves, use 1 lb. per 1000 sq. ft. (40 lbs. per acre) in sufficient water (min. 4 gals. per 1000 sq. ft.) to provide thorough and uniform coverage. Apply in the spring before weed growth starts or after removal of vegetation. Repeat treatment on spot basis to control hard-to-kill species such as guineagrass. In bedded groves, do not treat water furrows between the beds as injury to the trees may result.

Texas: Apply 2 to 4 lbs. per acre for annual weeds; use 4 to 6 lbs. 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.

FILBERTS
DIURON 80 WDG WEED KILLER is recommended for control of certain weeds in filbert orchards established for at least one year.

Apply as a directed spray, avoiding contact on the foliage and fruit with spray or drift. Make an initial treatment of 4 to 5 lbs. per acre in the late fall or early winter after harvest. Repeat annually with 3 to 4 lbs. per acre, or apply 2 lbs. per acre in October or November after harvest and repeat the same rate in March or April.

Do not apply when nuts are on the ground. Do not graze livestock in treated orchards. Do not use on light sandy soils. If trees are planted on hillsides, the elimination of weeds and ground cover may cause excessive soil erosion. Under these conditions strip applications (at proportionately lower rates) may be made near the trees or to the tree rows perpendicular to the slope.

GRAPES
Apply only to established vineyards (at least 3 years old) as a band treatment to grape rows. On soils low in clay or organic matter (1 to 2%), severe plant injury may result if heavy rainfall or more than one inch of irrigation occurs soon after treatment. This risk must be assumed by the user.

East of the Rocky Mountains: On soils low in clay or organic matter (1 to 2%), apply 2 to 3 lbs. per acre; on soils high in clay or organic matter, apply 3 to 6 lbs. per acre. Apply in the spring just prior to germination and growth of annual weeds.

West of the Rocky Mountains: Apply in November, December or January. For initial treatment, apply 3 to 4 lbs. per acre; subsequent annual applications of 2 lbs. per acre will usually give adequate weed control. Do not apply to vines with trunks less than 1½" in diameter as injury may result.

New York and Pennsylvania—Perennial Grasses: Use only in established vineyards (at least 4 years old) for spot control of perennial grasses such as orchardgrass, quackgrass and ryegrass. Apply in the spring as a band treatment to ridged soil (2" to 4" high) under the trellis at the rate of 8 to 12 lbs. per acre. Band width should not exceed 30". Do not apply more than once every 4 years. Use only on heavy soils 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 grapes may result.

MACADAMIA NUTS—Hawaii
Use only under trees established in the orchard for at least 1 year. Apply 2 to 6 lbs. per acre immediately after harvest, preferably before weeds emerge; if weeds have emerged, add 1 pt. surfactant per 25 gals. of spray. Retreat as needed but do not exceed 10 lbs. per acre per year.

OLIVES—California
Use only under trees established in the orchard for at least 1 year. Apply 2 lbs. per acre after grove has been laid-up in final form in late October or November; repeat at same rate in March or April. Remove weed growth prior to treatment.

PAPAYAS
Use only under trees established in the orchard for at least 1 year. Apply 2½ to 5 lbs. per acre, preferably before weeds emerge; if weeds have emerged, add 1 pt. surfactant per 25 gals. of spray.

PAPAYAS—Hawaii
DIURON 80 WDG WEED KILLER is recommended as a preplant application to control certain annual weeds such as buttongrass, crabgrass, foxtail, Flora's paintbrush, pigweed (Amaranth), ricegrass and sandbur.

Apply 1 lb. of DIURON 80 WDG WEED KILLER per acre as a preplant application. Using sufficient water to provide uniform coverage (100 gals. per acre), apply DIURON 80 WDG WEED KILLER as an interrow broadcast, hand knapsack spray or stroller spray. Be sure to avoid spraying on designated planting holes.

NOTE: Do not plant treated areas to any other crops within two years after last application as injury may result. Do not use on home plantings or in areas in which the roots of other plants or trees may extend as plant injury may result.

PEACHES
Use this product alone, or apply as a tank mixture with SINBAR.

DIURON 80 WDG Alone—Use only under trees established in the orchard for at least 3 years. Apply 2 to 5 lbs. per acre in the early spring before weeds emerge or during the early seedling stage of weed growth. Do not apply within 3 months of harvest; in the Far West, do not apply within 8 months of harvest.

DIURON 80 WDG + SINBAR—Use only under trees established in the orchard for at least 2 years. Apply either in the spring or after harvest in the fall before weeds emerge or during early seedling stage of weed growth.

Soil Texture	Lbs. Product Per Acre	
	1 to 2% Organic Matter DIURON 80 WDG + SINBAR	More than 2% Organic Matter DIURON 80 WDG + SINBAR
Sandy loam	1 + 1	1½ + 1½
Loam, silt loam, silt	1½ + 1½	2 + 2
Clay loam, clay	2 + 2	2 + 2

Where crop is grown under furrow or under raised-berm flood irrigation (trees 4" to 6" above waterline), apply only as a band treatment. Do not treat trees planted in the bottom of irrigation furrows, nor trees grown under flat floor or basin irrigation, as injury to trees may result. Where complete weed control to harvest is desired, additional weed control measures may be required during the growing season.

Georgia—On trees established for at least 2 years, apply 2 to 3 lbs. per acre in the spring. Repeat application in the fall but do not exceed 5 lbs. per acre per year. Add surfactant at 1 pt. per 25 gals. spray mixture to improve control of small, emerged weeds.

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4" to 6" above waterline), apply only as a band treatment. Do not treat trees planted in the bottom of irrigation furrows, nor trees grown under flat flood or basin irrigation, as injury to trees may result. Where complete weed control to harvest is desired, additional weed control measures may be required during the growing season.

PEARS
Use only under trees established in the orchard for at least 1 year; do not treat varieties grafted on full-dwarf root stocks. Apply 4 lbs. per acre in the spring (March through May). In the Far West, treatment may be made in winter (December through February), or apply 2 lbs. per acre as a postharvest treatment followed by 2 lbs. in the spring.

PECANS
Use this product alone or apply as a tank mixture with SINBAR. Make a single band or broadcast application as a directed spray using a minimum of 30 gals. of water per acre. Apply in the spring before weeds emerge or during the early seedling stage of growth.

Soil Texture	Lbs. Product Per Acre	
	DIURON 80 WDG Alone*	Tank Mixture -OR- DIURON 80 WDG + SINBAR**
Sandy loam	2	1½ + 1½
Loam, silt loam, silt	3	1¾ + 1¾
Clay loam, clay	4	2 + 2

* Use only on trees established in grove for at least 3 years and on soils with at least ½% organic matter.
** Use on trees established in the grove for at least 1 year and on soils with at least 1% organic matter.

NOTE: Do not use on eroded areas where subsoil or roots are exposed, nor on trees that are diseased or lacking in vigor or on trees planted in irrigation furrows as injury to the trees may result.

PINEAPPLE
Hawaii and Florida—Apply 4 to 8 lbs. per acre as a broadcast spray just before or immediately after planting but prior to weed emergence. Use 4 lbs. 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 a rate of 2 lbs. per acre at intervals of not less than 2 months. Additional applications to plant crop may be made as needed to interspace only using 2 lbs. per acre. Do not apply more than 3 broadcast sprays (maximum 12 lbs. per acre) prior to differentiation nor more than 16 lbs. total per acre per plant crop. Treated areas may be planted to pineapple or sugarcane 1 year after last application.

Puerto Rico—Apply 3.75 to 6.25 lbs. per acre as a broadcast spray before or immediately after planting but prior to weed emergence.

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WALNUTS (English)—California, Washington and Oregon

Use only under trees established in the orchard for at least 1 year. As an initial treatment, apply 3 to 5 lbs. per acre after the orchard has been laid up in final form (non-tillage program) in late fall or early winter; retreat annually with 2 to 3 lbs. per acre. Alternatively, apply 2 lbs. per acre in October or November and repeat at same rate in March or April.

NOTE: Do not use on sand, loamy sand, gravelly soils or exposed subsoils, nor where organic matter is less than 1%. Do not graze livestock in treated orchards and groves.

ORNAMENTAL CROPS (See Soil Limitations)

ORNAMENTAL BULB CROPS (Bulbous Iris, Narcissus)—Western Washington

Make a single application of 4 lbs. per acre. Apply after planting but no later than 4 weeks prior to bulb emergence (usually late September or October). Do not replant treated areas to any crop within 1 year after last application as injury to subsequent crops may result.

PLUMOSUS FERN—Florida

Hand weed and mow fern; then make a single application of 3 lbs. per acre within 3 to 5 days. Do not cultivate or disturb soil after application as crop injury may result. Treat only established stands at least 1 year old.

TREE PLANTINGS—Colorado, Montana, Nebraska, North Dakota, South Dakota, Wyoming

Use only under established plantings (1 year or older) of American elm, caragana, cottonwood, Douglas fir, green ash, honeysuckle, Ponderosa pine, redcedar, Russian olive and Siberian elm. Use 2½ to 5 lbs. per acre; apply as a band 4 ft. wide in the tree row (2 ft. on each side of row).

For example, 1 oz. of this product treats 135 ft. of tree row (2 ft. on each side of row) at the rate of 5 lbs. per acre. Apply as a directed spray in early spring before weeds emerge and before trees leaf out. Do not apply to foliage of trees, nor under trees growing in low areas as injury to the trees may result.

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 enter treated area until sprays have dried.

PASTURES (See Soil Limitations)

BERMUDAGRASS PASTURES (Newly Sprigged)

Apply 1 to 3 lbs. after planting and before emergence of bermudagrass or weeds. Alternatively, for control of emerged annual weeds up to 4 in height, apply ½ to 1 lb. per acre; add 1 pt. surfactant per 25 gals. of spray. If bermudagrass has emerged at time of treatment, temporary burn of exposed plant parts may occur. Plant sprigs (stolons) 2" deep in a well-prepared seedbed; do not treat areas where sprigs are planted less than 2" deep as crop injury may result. Do not graze or feed foliage from treated areas to livestock within 70 days after application.

BERMUDAGRASS PASTURES (Established)—Arkansas

Use in bermudagrass pastures in Arkansas to control barnyardgrass, annual bluegrass, chickweed, crabgrass, foxtail, morningglory, pigweed, purslane, ragweed, sandbur, and wild mustard.

Apply 1 to 3 lbs. per acre in early spring before weed emergence. Alternatively for control of emerged annual weeds up to 4" in height, apply ½ to 1 lb. per acre; add 1 pt. of surfactant per 25 gals. of spray solution.

For ground preemergence application, use 25 to 40 gals. spray mixture per acre. For ground postemergence application use sufficient volume (25 gals. per acre minimum) for thorough coverage of weed foliage.

For preemergence application by air, use 5 to 10 gals. spray mixture per acre. Avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur.

Do not graze or feed foliage from treated areas to livestock within 2 months after application.

NON-CROP WEED CONTROL

This product is an effective herbicide for the control of many annual and perennial grasses and herbaceous weeds of non-cropland area where bare ground is desired. The degree of control and duration of effect will vary with the amount of chemical applied, soil texture, rainfall and other conditions.

This herbicide may be used as a preemergence treatment at any time of the year except when ground is frozen, provided adequate moisture is supplied by rainfall or artificial means to activate the herbicide. Best results are obtained if application is made to the soil shortly before weed growth begins. If dense growth is present, remove tops and spray the ground.

Increased contact activity on established weeds may be obtained by the addition of surfactant at the rate of 2 qts. per 100 gals. of spray mixture. Apply as a drenching spray to actively growing weeds during warm weather when daily temperature will exceed 70°F.

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Except for small areas, use a fixed-boom power sprayer properly calibrated to insure a constant rate of application. Mix proper amount of this product into volume of water necessary to obtain uniform coverage; if surfactant is used, dilute with 10 parts of water and add as last ingredient to nearly full tank. Material must be kept in suspension at all times. Agitate by mechanical or hydraulic means in the spray tank; if bypass or return line is used, it should terminate at bottom of tank to minimize foaming. Openings in screen should be equal to or larger than 50 mesh.

General Weed Control: To control most weeds for an extended period of time on non-cropland such as utility, highway, pipeline and railroad right of ways, petroleum tank farms, lumberyards, storage areas, industrial plant sights, and around farm buildings—apply 5 to 20 lbs. per acre to control most annual weeds. Use 20 to 60 lbs. per acre for perennial weeds; additional treatment may be required where a longer period of control is desired or when hard-to-kill, deep-rooted perennial weeds such as johnsongrass are present. In low rainfall areas, this product may not provide satisfactory control of deep-rooted perennial weeds.

For control on small areas, use 1% ounces of this product per 100 sq. ft. for a dosage of approximately 50 lbs. per acre.

Irrigation and Drainage Ditches: Apply 5 to 20 lbs. per acre to control most annual weeds; use 20 to 60 lbs. per acre to control both annual and perennial weeds. Apply only when water is not in the ditch. For irrigation ditches, apply during the non-crop season, and when ditch is not in use. To minimize movement of this herbicide with irrigation water (to avoid possible crop injury), it is essential that the herbicide be fixed in the soil by moisture. Apply before expected season rainfall (if possible) when soil in the ditch is still moist. Following treatment, if rainfall has not totaled at least 4 inches, fill ditch with water and allow to stand for 72 hours; drain off and waste remaining water before using ditch. Do not treat any ditch into which roots of trees or other desirable plants may extend as injury may result.

ROADSIDE BERMUDAGRASS—Oklahoma

DIURON 80 WDG WEED KILLER is recommended for use in bermudagrass on highway right-of-ways for control of annual weeds such as barnyardgrass, crabgrass, Kochia, lambsquarters, pigweed, and ragweed.

Make a single application of DIURON 80 WDG WEED KILLER either preemergence or postemergence to the weeds. Apply as a broadcast treatment with a properly calibrated boom sprayer using sufficient amount of water (25 to 40 gallons per acre) to provide thorough and uniform coverage. Avoid overlapping and shut off spray boom while starting, turning, slowing, or stopping or injury to the bermudagrass may result. Continuous agitation as directed on the package label is required to keep the material in suspension.

Preemergence Treatment: Apply 2 to 4 lbs. DIURON 80 WDG WEED KILLER per acre before emergence of bermudagrass or weeds.

Postemergence Treatment: Apply 2 to 4 lbs. DIURON 80 WDG WEED KILLER per acre when seedling weeds up to 4" in height are present. Add surfactant at rate of 1 pt. per 25 gals. of spray mixture. Use the lower rate on weeds up to 2" tall and the higher rate on weeds 2" to 4" tall.

Use the lower rates on light soils (sandy loam and loam) and the higher rates on heavy soils (clay loam and clays). Best results are obtained if the herbicide is moved into the root zone of germinating weeds by rainfall or irrigation within two weeks of application.

NOTES:

- If bermudagrass is exposed at time of treatment, temporary burn of exposed plant parts may occur.
- DIURON 80 WDG WEED KILLER controls weeds early in the season and supplemental mowing may be required later.
- Do not graze or feed foliage from treated areas to livestock within 70 days after application.

WARRANTY DISCLAIMER AND NOTICE

IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY ASSOCIATED WITH THE USE OF THIS PRODUCT. CROP INJURY, INEFFECTIVENESS, OR OTHER UNINTENDED CONSEQUENCES MAY RESULT DUE TO SUCH FACTORS AS WEATHER CONDITIONS, PRESENCE OR ABSENCE OF OTHER MATERIALS, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF LOVELAND PRODUCTS INC., THE MANUFACTURER OR SELLER.

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IN NO EVENT SHALL LOVELAND PRODUCTS INC., THE MANUFACTURER OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES AND THE BUYER AND USER WAIVE ANY RIGHT THEY MAY HAVE TO SUCH DAMAGES.

ACCEPTED
with 6 COMMENTS
In EPA Letter Dated:
MAY - 3 2004

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.**
34704-648

FORMULATED FOR



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