

9779-318

4-6-2005

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

APR - 6 2005

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Mr. Alice Walker
Agriliance, LLC
c/o Alice Walker Consulting
481 Country Club Drive
Senatobia, MS 38668

Dear Ms. Walker:

Subject: Diuron 80 DF (Update Label)
EPA Registration No. 9779-318
Application Dated February 11, 2005

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. Revise the second sentence of your Environmental Hazards section to read "Do not contaminate water when **cleaning equipment or** disposing of equipment washwaters or rinsate.
2. In the Agricultural Use Requirements box, delete the phrase "unless wearing appropriate PPE" from the second paragraph.

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

Sincerely,

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

ACCEPTED
with COMMENTS
In EPA Letter Dated:

APR - 6 2005

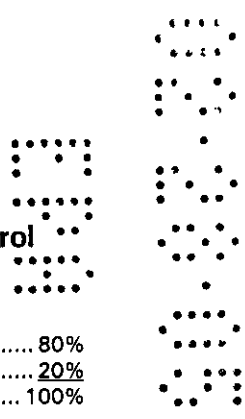
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

9779-318



Diuron 80DF

For Preemergence and Postemergence Weed Control



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

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor.

IF IN EYES: Hold eyelids 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. Call a poison control center or doctor for treatment advice.

IF ON SKIN: 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information in case of emergency call toll free 1-877-424-7452.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE).

Personal Protective Equipment (PPE)

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. Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Mixers and Loaders must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, protective eyewear, chemical-resistant headgear and chemical-resistant apron when mixing or loading.

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

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.

Read Additional PRECAUTIONARY STATEMENTS on page two.

EPA Reg. No. 9779-318

EPA Est. No.

Distributed By:
Agrilience, LLC

P.O. Box 64089, St. Paul, MN 55164-0089

NET CONTENTS
____ LBS.
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ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Sweep up spills and bury in a safe place away from water supplies.

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 through any type of irrigation system.

Do not use in Kern County, California, except for non-cropland and citrus weed control.

For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

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.

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 unless wearing appropriate PPE.

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, chemical resistant gloves made of any waterproof material, and shoes plus socks.

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, nurseries, or greenhouses.

Keep unprotected persons and pets out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL

PESTICIDE STORAGE: Store in a dry location away from children, animals, foods, feeds, seeds, fertilizers, or other agricultural chemicals. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage, scrape up spillage. If spillage is not suitable for use, dispose of in accordance with information given under DISPOSAL. Repackage and relabel useable product in a sound container. In case of fire or other emergency, report at once by toll free telephone to 800-424-9300.

PESTICIDE DISPOSAL: 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 burned, stay out of smoke.

GENERAL INFORMATION

DIURON 80DF is a water dispersible granule to be mixed in water and applied as a spray for selective weed control of many annual broadleaf and grass weeds in corn, cotton, sorghum, sugarcane, fruit and nut trees, berries, and certain other crops. It is also effective in noncrop areas and industrial sites for control of most annual and many perennial broadleaf and grass weeds.

DIURON 80DF may be applied preemergence. Soils high in clay or organic matter require higher dosages than soils low in clay or organic matter. Moisture is necessary to activate DIURON 80DF applied preemergence. Best results occur if rainfall or sprinkler irrigation occurs within two weeks of application. With favorable moisture conditions, DIURON 80DF will control weeds over an extended period, after which secondary weed control procedures such as cultivation and postemergence herbicide applications should be implemented.

DIURON 80DF may also be used to control emerged weeds. Results are dependent on amount applied and favorable environmental conditions such as high humidity and temperatures of 70° F or higher. The addition of an approved non-ionic surfactant (minimum 80% active), where recommended, increases the contact effectiveness of DIURON 80DF.

Directed postemergence sprays may be made on the following crops: artichokes, field corn, cotton, sorghum, gooseberries, citrus, grapes, apples, caneberries, blueberries, sugarcane, bananas, plantains, macadamia nuts, olives, papayas, peaches, pears, pecans, walnuts, and certain tree plantings.

Under the conditions given under "Directions for Use," DIURON 80DF without a surfactant may be applied over the top of established, dormant or semi-dormant alfalfa; established, dormant asparagus; sugarcane; wheat; pineapple; and established or mowed plumosus fern.

Weed species vary in susceptibility to DIURON 80DF and they may be more difficult to control when under stress. Combinations or tank mixes of DIURON 80DF with other herbicides (as registered) increase the number of weed species controlled; consult labels of the companion product for this and other information. Whenever tank mixing DIURON 80DF with other products, observe all precautions, limitations and directions on labels of products used in combination with DIURON 80DF.

PRECAUTIONS

Injury to or loss of desirable trees or other plants may result from failure to observe the following: Do not apply except as recommended on this label. Do not empty application equipment on or near desirable plants or trees, or to where their roots may extend, or to where the chemical might be washed or otherwise moved into contact with their roots. Do not use on any home plantings nor on lawns, walks, driveways, tennis courts, or similar areas. Do not allow spray to drift onto desirable plants. Do not contaminate any body of water. Do not mix/load or use near wells including abandoned wells, drainage wells and sink holes. Avoid storage of pesticides near well sites. Keep from contact with fertilizers, insecticides, fungicides and seeds. Calibrate sprayers only with clean water away from well sites.

Clean all traces of DIURON 80DF from application equipment by flushing thoroughly with several changes of water. Nozzle tips and screens should be cleaned separately.

SELECTIVE USE IN CROPS

Preemergence Use (Germinating Weeds): Diuron 80DF, at recommended rates, controls annual weeds such as:

Broadleaves		
¼ to 1 Lb/Acre	1 ½ to 2 Lbs/Acre	2 to 6 Lbs/Acre
Lambsquarters Pigweed Purslane Ragweed	Annual groundcherry Annual morningglory Chickweed Corn spurry Dogfennel Fiddleneck (amsinckia) Gromwell Knawel Pennycress Shepherdspurse Tansy-mustard Wild buckwheat Wild lettuce Wild mustard	Ageratum Annual smartweed Annual sowthistle Corn speedwell Dayflower Flora's paintbrush Hawksbeard Horseweed Kochia Marigold Mexican clover Pineappleweed Pokeweed Rabbit tobacco Spanishneedles Velvetleaf (buttonweed) Wild radish

Grasses		
¼ to 1 lb/Acre	1 ½ to 2 Lbs/Acre	2 to 6 Lbs/Acre
Barnyardgrass (watergrass) Crabgrass	Annual bluegrass Annual sweet vernalgrass Foxtail Rattail fescue Red sprangletop Velvetgrass	Annual lovegrass Annual ryegrass Kyllinga Orchardgrass Peppergrass Ricegrass Sandbur Seedling Johnsongrass

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

Broadleaves		Grasses	
1 Lb/Acre	4 Lbs/Acre	4 Lbs/Acre	8-10 Lbs/Acre
Annual morningglory Cocklebur Prickly sida (teaweed) Sesbania Sicklepod	Horsenettle	Quackgrass	Guineagrass Maidencane Pangolagrass

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Postemergence Use (Emerging Seedling Weeds): DIURON 80DF, at recommended rates, controls annual weeds such as annual morningglory, barnyardgrass (watergrass), crabgrass, crowfoot, goosegrass, pigweed and purslane. Addition of an approved non-ionic surfactant (minimum 80% active) to the spray, where recommended, increases contact effectiveness. 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 gallons 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.

SPRAY PREPARATION

Mix proper amount of DIURON 80DF into necessary volume of water; where use of a surfactant is recommended, dilute with 10 parts of water and add as last ingredient to nearly full tank.

USE RATES

All dosages are expressed as broadcast rates; for band treatment, use proportionately less. For example, use 1/3 of the broadcast rate when treating a 14" band where row spacing is 42". Where a range of dosages 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 if used on sand, loamy sand, gravelly soils or exposed subsoils. Do not use on pecans where organic matter is less than 0.5%; nor on alfalfa, apples, artichoke, barley (winter), citrus, cotton, grapes, oats, olives, papayas, peaches, pears, 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.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following spray drift management practices are recommended to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward, parallel with the air stream, and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicators should be familiar with and take into account the information covered in the aerial drift reduction advisory information.

Importance of Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released backwards, parallel to the air stream, produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length: For some use patterns, reducing the effective boom length to less than $\frac{1}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

FIELD CROPS

(See Soil Limitations)

A good seedbed must be prepared before preemergence use of DIURON 80DF 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; 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.

ALFALFA: Treat only stands established for 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 1 ½ to 3 pounds per acre; for control of volunteer alfalfa, use 4 pounds per acre. Apply in fall after alfalfa becomes dormant but no later than mid-December.

California (Dormant and Semi-Dormant Varieties): Use 1 ½ to 3 pounds per acre; for control of volunteer alfalfa, use 4 pounds 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 DIURON 80DF with a suitable contact herbicide registered for such use. Sufficient rainfall for soil activation of DIURON 80DF 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 pounds per acre.

Arizona, Nevada: Use 1 ½ to 3 pounds per acre; apply in fall after alfalfa becomes dormant but no later than January.

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

Other Areas Where Alfalfa Becomes Winter Dormant: Use 1 ½ to 3 pounds per acre (1 ½ to 2 pounds per acre east of Appalachian Mountains). Apply in March or early April, but before spring growth begins.

ARTICHOKE--California: Apply 2 to 4 pounds 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 pounds per acre. On soils high in clay or organic matter, use 2 to 4 pounds 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 period provided rainfall is expected. When two applications are used in one season, do not exceed 3 pounds per acre per application. In Washington (irrigated crop), apply a single treatment of 4 pounds 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 pounds 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 1 ½ to 2 pounds 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 stands established for at least 1 year; do not apply to seedling trefoil as injury may result. Make a single application of 2 pounds 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 pound in combination with non-pressure nitrogen solution. If nitrogen solution is not used, apply 1 pound per acre; add 1 pint of an approved non-ionic surfactant per 25 gallons 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 2/3 to 1 pound per acre as a broadcast or band treatment after planting but before corn emerges. Plant corn at least 1 ½" 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 season, do not exceed the following amounts of DIURON 80DF per acre as injury to subsequent crops may result; 1 pound on loamy sand; 1 ½ pounds on sandy loam; 2 pounds on clay loam; 2 ¾ pounds on clay. Do not spray over the top of cotton plants. Do not apply to sand or loamy sand soils. Do not use on soils with less than 1% organic matter as crop injury may result. Injury may occur if DIURON 80DF is used in conjunction with soil-applied organic phosphate pesticides. Do not allow livestock to graze treated cotton.

Preplant--Arizona and California: Use DIURON 80DF alone, or apply as a separate operation following preplant broadcast treatment with Trust® 4EC (trifluralin) [incorporated according to direction on trifluralin label]. Apply DIURON 80DF 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 DIURON 80DF. 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 80DF Alone: 1 to 2 ½ pounds per acre.

DIURON 80DF Following Trust 4EC (Trifluralin):

Soil Texture	Product Per Acre - Preplant	
	Trust 4EC	DIURON 80DF
Sandy loam, loam, silt loam, silt	1 pt.	2/3 to 1 lb.
Sandy clay loam, clay loam, silty clay loam, sandy clay, clay	1 ½ pts.	1 to 1 ¼ lbs

Note: Seedling disease may weaken plants and increase the possibility of injury from the use of trifluralin followed by DIURON 80DF. These treatments should be used only in conjunction with a standard fungicide seed treatment plus a good supplemental soil fungicide program.

Preplant (except Arizona and California): Diuron 80DF may be used for burndown of existing annual weeds and residual control of weeds prior to planting cotton. Complete any planned tillage prior to application. Apply herbicide treatments before weeds germinate or before weed seedlings are more than 2 inches tall. If weeds are emerged prior to application, the addition of a non-ionic surfactant is recommended. Tillage following application should be avoided to prevent incorporation of the herbicide into the cotton seed germination zone which may result in crop injury. Dragging treated soil from beds will concentrate the herbicide in middles and reduce residual weed control on the beds.

Apply Diuron 80DF at 1 to 2 pounds per acre from 15 to 45 days prior to anticipated planting. Refer to the table below for use rates in preplant applications. Do not exceed suggested use rates for individual soil textures shown in the table below. If less

than the maximum rate of application for a given soil is applied preplant, subsequent preemergence applications of Diuron 80DF may be made. However, the total combined application rate for Diuron 80DF applied preplant and preemergence may not exceed the maximum suggested use rate for either application method.

Diuron 80DF Alone

Soil Texture	Pounds DIURON 80DF Per Acre
Sandy loam, loam, silt loam, silt	1
Sandy clay loam, clay loam, silty clay loam, sandy clay	1 1/4
Silty clay, clay	2

Preemergence application of herbicides with a similar mode of action to that of diuron following preplant application of Diuron 80DF may result in cotton injury. When preplant applications of Diuron 80DF are followed by preemergence applications of herbicides with a similar mode of action, e.g., products containing fluometuron, the product containing fluometuron should be used at the minimum rate of application for the soil under consideration in order to reduce potential for crop injury. This is most critical where applications of Diuron 80DF are made less than 30 days preplant, on coarse textured soils, and on soils low in organic matter. The risk of injury from preplant applications of Diuron 80DF is reduced where substantial rainfall (> 0.5") occurs between application and planting. Read and follow any additional precautions on the Diuron 80DF label when using this product for preplant weed control in cotton.

Preplant Tank Mixes: When emerged weeds taller than 2 inches or weeds not listed on the Diuron 80DF label are present, Diuron 80DF may be tank mixed with other products labeled for preplant applications in cotton, including paraquat and glyphosate. The addition of dry spray grade ammonium sulfate at the rate of 2.0% w/w (17 pounds per 100 gallons finished spray solution) is suggested to enhance performance of Diuron 80DF plus glyphosate tank mixes.

Replanting: Only cotton and corn may be planted within 6 months of preplant applications of Diuron 80DF. To avoid crop injury following replanting, avoid disturbing the original bed.

Preemergence--U.S., except Arizona, California: Use DIURON 80DF alone or apply as a separate operation following preplant treatment with trifluralin. Apply 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 1/4") 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 DIURON 80DF or if soil becomes crusted before crop emerges, a shallow rotary hoeing (no deeper than 1/4") should be made before weeds become established.

Diuron 80DF should not be applied preemergence following application of the maximum rate for a given soil applied preplant. If less than the maximum rate is used preplant, additional Diuron 80DF may be applied preemergence. However, the total amount of Diuron 80DF applied preplant and preemergence must not exceed the maximum suggested use rate for either preplant or preemergence applications.

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

Soil Texture*	Pounds DIURON 80DF Per Acre
Sandy loam, loam, silt loam, silt	1
Sandy clay loam, clay loam, silty clay loam, sandy clay	1 1/4
Silty clay, clay	2

*Do not use on sand or on soils with less than 1% organic matter as crop injury may result. For heavy clay soils (high in organic matter) use other weed killers. Do not treat cotton in deep furrows as crop injury may result. In Texas and Oklahoma west of I-35 and New Mexico, do not apply to loamy sands or sandy loam soil (particularly where they have been deep plowed to change texture).

DIURON 80DF Following Trifluralin Preplant: Apply Trust 4EC (trifluralin) prior to planting as a broadcast or band treatment; incorporate according to directions on Trust 4EC (trifluralin) label. As a separate operation, apply DIURON 80DF 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	
	Preplant Trust 4EC	Preemergence DIURON 80DF
Sandy loam, loam, silt loam, silt	1 pt.	1 lb.
Sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, clay	1 1/2 pts.	1 1/4- 2 lbs.

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*Do not use on soils with less than 1% organic matter as crop injury may result. For heavy clay soils (high in organic matter) use other weed killers. Do not treat cotton in deep furrows as crop injury may result. In Texas and Oklahoma west of I-35 and New Mexico, do not apply to loamy sand and sandy loam soil (particularly where they have been deep plowed to change texture.)

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. Applications may also be made in hooded/shielded sprayers. Do not spray over top of cotton.

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 at following rates: for each 25 gallons of spray, add 1 pint of an approved non-ionic surfactant. Two applications may be made if needed.

Annual Weed Problem

Up to 2" Tall	Pounds DIURON 80DF Per Acre (Broadcast Basis)
Cotton 6-8" Cotton 8-12"	½ ¾ (except CA)

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 pounds (active ingredient) DSMA or 1-2/3 to 2 pounds active MSMA to above spray mixture. If DSMA or MSMA is used, do not apply after first bloom.

For enhanced weed control in hooded/shielded sprayer applications, add MSMA or DSMA as suggested above; or paraquat or glyphosate according to label recommendations. Consult product labels for specific recommendations and precautions for hooded sprayer applications.

Late Season (Lay-By)--Apply 1 to 1½ pounds per acre (1 to 2 pounds 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 an approved non-ionic surfactant (1 pint per 25 gallons spray), or use ½ to ¾ lb. DIURON 80DF (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 DIURON 80DF alone or following trifluralin. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation such as discing; do not relist or 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 80DF-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- Broadcast preemergence (and preplant) -or- Broadcast preemergence plus band postemergence	Cotton, soybeans, corn or grain sorghums (not sorghos or forage sorghum 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 postemergence (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.

For subsequent crops in fields where trifluralin is used, follow instructions on the trifluralin label.

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

Colorado, Kansas, Missouri, New Mexico, and Oklahoma: On sand bluestem, side oats grama and switchgrass, apply 2 to 3 pounds 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 pounds per acre; spread unburned chaff or straw with a harrow or chopper before application.

Western Oregon, Western Washington: On tall and fine fescue, Astoria bentgrass, Highland bentgrass, Kentucky bluegrass (Merion bluegrass), orchardgrass, and perennial ryegrass apply 2 to 4 pounds per acre between October 1 and November 15. In fields where ash residues have accumulated from burning straw, use 3 to 4 pounds per acre; spread unburned chaff or straw with a harrow or chopper before application. If perennial velvetgrass (Holcus lanatus) is a problem, use 4 pounds per acre. For

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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 tall and fine fescue, Kentucky bluegrass, perennial ryegrass 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 pounds per acre.

Oregon, Washington: For use in newly planted bentgrass, fine fescue, Kentucky bluegrass, perennial ryegrass, orchardgrass, and tall fescue. During planting operation, spray Aqua-Nu-Char[™] or other a suitable brand of activated charcoal as a 1" band on soil surface at a rate of 300 pounds per acre (broadcast basis; equivalent to 15 pounds per acre of crop where row spacing is 20"). Mount nozzles to apply directly over seed rows to prevent crop injury. Follow with DIURON 80DF as a single broadcast spray at a rate of 2 1/2 or 3 pounds 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.

Oregon, Washington: Apply in the fall to perennial ryegrass at the rate of 1 to 2 pounds per acre and to tall fescue at the rate of 2 to 4 pounds per acre. Use a sufficient volume of water, a minimum of 25 gallons per acre, for thorough coverage of weed foliage. For best results, make applications at the onset of the fall rains and before weeds have become established (typically October 1 through November 15). Established weeds beyond the 2-4 leaf stage should be removed prior to treatment. Apply only to well established vigorous stands. Do not apply to perennial ryegrass stands less than 1 year old. Use mechanical agitation and avoid overlap of spray patterns. Weed control efficacy may be reduced in fields where ash residues have accumulated from burning straw.

Eastern Washington, Eastern Oregon: Established Perennial Bluegrass and fescue--Broadcast 1 to 3 pounds of DIURON 80DF per acre in enough diluent to get even distribution for suppression. Apply in spring before rapid growth begins of the Bluegrass and when the windgrass is still small (1 - 4 leaf). Do not use on coarse (sandy) textured soils.

Annual Ryegrass for the Creation of Rows: Apply 1 to 2 pounds per acre as a directed or shielded spray so the intended crop row area is not treated. These applications should be made where excessive populations of annual ryegrass are anticipated to volunteer from previous crops. Applications can be made as a directed/shielded spray during seeding or after emergence of annual ryegrass. These applications generally will occur between October 1 and January 15. Diuron 80DF is most effective when applied before annual ryegrass volunteer plants have more than 2 leaves. If larger plants are to be treated, addition of a labeled postemergence herbicide will provide more effective control. Adjust nozzle heights and spacing to allow the establishment of the desired row width (generally about 3 inches) and spacing (generally 9 to 12 inches). Use of low pressure nozzles, shielded nozzles, or drop nozzles to reduce spray movement into the intended crop row area is recommended.

Fine Fescue Grass Seed Crops (including chewings, creeping red and hard fescue types): For the suppression of rattail fescue, apply 1 to 2 pounds per acre on soils having at least 1% organic matter. Do not use on sand, loamy sand, gravelly soils or exposed subsoils.

Crop Stage and Application Timing: Diuron 80DF is recommended for use on healthy, vigorous stands of fine fescue. Diuron 80DF can be applied to stands established at least 1 year or to new plantings that have been established for at least 6 months and have a minimum of eight tillers at time of application.

Apply in fall before grass weeds are beyond the one to two leaf stage and before broadleaf weeds are larger than 1 to 2 inches tall or across. Use the high end of the rate range for large weeds or where weed populations are high.

Approximately 1/2 to 1 inch of rainfall or sprinkler irrigation is needed to move Diuron 80DF into the weed zone before weeds develop an established root system. Weeds larger than the size indicated or those having a well established root system before Diuron 80DF is properly activated by rainfall/irrigation may not be adequately controlled.

Weed control may be reduced by heavy straw residues or ash from field burning.

Tank Mixes and Sequential Treatments: Diuron 80DF can be applied either alone or in a program involving tank mixes and/or sequential treatments with other herbicides and adjuvants. When using a tank mix with other herbicides, use 1 to 1-1/2 pounds per acre unless prior experience indicates it is safe to use higher rates. Tank mixes with other herbicides can increase the risk of crop injury. When using a tank mix for the first time, limit use to a small area to determine safety before treating large areas.

Precautions: Do not replant treated areas to any crop within 2 years of last application as injury to subsequent crops may result. Do not apply to snow covered or frozen ground as injury to the crop or poor weed control may result. Do not treat stands lacking in vigor due to poor fertility, environmental stress, insect or disease or damage from other herbicides.

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 1 1/2 pounds 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 1 1/2 to 2 pounds per acre as soon as possible after planting but before emergence of the crop.

PEPPERMINT--Pacific Northwest

Apply Diuron 80DF at $\frac{3}{4}$ to 1 pound per acre on soils having 1.0% to 2.0% organic matter.
Apply Diuron 80DF at 1 to 2 pounds per acre on soils having 2.1% to 3.0% organic matter.
Apply Diuron 80DF at 2 to 3 pounds per acre on soils having more than 3.0% organic matter.

Precautions: Do not apply to stands of mint suffering from stress due to low fertility, drought, winter injury, insects, disease or damage from other herbicides or other causes. Do not apply to snow covered or frozen ground as injury to the crop or poor weed control may result. Do not apply to sand, loamy soil, gravelly soils or exposed subsoils. Do not apply to soils that have a high salt content and/or high water table or poor drainage that retards mint root development resulting in a shallow root system. Do not apply to soils having less than 1% organic matter.

Application Timing: Apply Diuron 80DF to established (at least one year) stands of mint during the late winter dormant period or after flaming in the spring prior to the emergence of new growth. Do not cultivate after application. If weeds are present at time of application, the use of a surfactant at 0.25% volume/volume or crop oil concentrate at 1.0% volume/volume may be used to increase the performance of Diuron 80DF postemergence to weeds.

Tank Mixes and Sequential Treatments: Diuron 80DF can be applied either alone or in a program involving tank mixes and/or sequential treatments with other herbicides and adjuvants providing Diuron 80DF is not applied to actively growing mint plant. When using a tank mix with other herbicides, use the lower end of the Diuron 80DF use rate range unless prior experience indicates it is safe to use higher rates. Tank mixes and sequential treatments with other herbicides can increase the risk of crop injury. When using a certain tank mix or sequential treatment for the first time, limit use to a small area to determine safety before treating large areas.

RED CLOVER--Western Oregon

Make a single application of two pounds per acre on established red clover (at least 9 months). Apply DIURON 80DF 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 velvet grass.

SORGHUM (GRAIN)--Southwestern States

Apply $\frac{1}{4}$ to $\frac{1}{2}$ pound per acre; add 1 pint approved non-ionic surfactant per 25 gallons of spray. Apply as a 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 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 $\frac{1}{2}$ pound 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, test tolerance to DIURON 80DF 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. Application over emerged cane should be made only as directed below, without the addition of a surfactant or crop oil concentrate. To minimize chlorosis, use directed postemergence sprays.

Diuron 80DF may be applied as a directed spray (including hooded and shielded spray) in combination with labeled paraquat formulations. Consult the label of the tank mix partner for rates and timings of application, restrictions, precautions.

Florida: Preemergence--For high organic soils, apply 2 to 4 pounds 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 pounds per acre as needed by directed spray inter-row. Alternatively, for panicum control, make up to 3 applications of $\frac{1}{2}$ to 1 pound per acre as a directed spray after cane has emerged but before panicum exceeds 2" in height; add 1 quart of an approved non-ionic surfactant per 100 gallons of spray. Adjust nozzles to spray beneath cane plants and between rows to cover weed foliage and to minimize contact of cane leaves with spray drift. Do not apply more than 6 pounds total per acre between planting (or ratooning) and harvest.

Hawaii and Puerto Rico: For Hawaii apply 2 to 6 pounds per acre, for Puerto Rico apply 4 to 8 pounds 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 pounds 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 the spray at the rate of 1 to 2 quarts per 100 gallons and apply as a directed spray. Do not spray over the top of cane.

Do not apply more than 3 treatments nor more than 10 pounds (Puerto Rico) or 12 pounds (Hawaii) total per acre between planting (or ratooning) and harvest. Treated areas may be planted to sugarcane or pineapple one year after last application.

Louisiana, Texas: Apply 3 to 3 $\frac{3}{4}$ pounds per acre. Diuron 80DF may be applied as a broadcast spray after planting and following the harvest of sugarcane. Diuron 80DF may also be applied broadcast in late winter. Application is best when made prior to weed emergence.

Diuron 80DF may be applied as a post-directed spray immediately after the last cultivation. Direct the spray application to the base (no more than 1/3 the plant height) of the sugarcane plants. When small weeds (3 inches or less) are present at application, add a surfactant at 0.25% v/v or crop oil concentrate at 1.0% v/v to the spray mix.

Precautions: Temporary leaf yellowing may occur following the application. Do not apply more than 7½ pounds per acre broadcast per year. For band application, reduce the above broadcast rates proportionately to the width of the band using the following formula:

Band width in inches
_____ X Broadcast Rate = Band Rate per Acre

Row width in inches

WINTER WHEAT

Crop injury may result where severe winter stress, disease or insect damage follows application; winter-sensitive varieties may be less tolerant of DIURON 80DF than winter-hardy varieties. 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 knolls); do not treat wheat planted less than 1" deep; do not treat 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 check with your county agent or state extension specialist before using DIURON 80DF in combination with surfactants or nitrogen solutions. 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 Rainfall Exceeds 16 Inches: Make a single application of 1 to 1½ pounds 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 pound DIURON 80DF plus ¼ pound 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 fall, make a single application of 1 to 1½ pounds 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 pounds 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 mixture of Diuron plus bromoxynil as detailed above for "East of Cascade Range".

Other Areas of Oregon and Washington: 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 pounds per acre.

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

Northeast: Use 1 to 1½ pounds 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

DIURON 80DF 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 pounds per acre in the spring (March through May). In the Far West, treatment may be made in winter (December through February), or apply 2 pounds per acre as a postharvest treatment followed by 2 pounds in the spring.

DIURON 80DF + 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	Pounds Product Per Acre					
	1 to 2% Organic Matter			More than 2% Organic Matter		
	DIURON 80DF	+	Sinbar *	DIURON 80DF	+	Sinbar *
Sandy loam	1	+	1	1 ½	+	1 ½
Loam, silt loam, silt	1 ½	+	1 ½	2	+	2
Clay loam, clay	2	+	2	2	+	2

* This mixture is not registered in California.

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (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.

Georgia--Apply 2 to 3 pounds per acre in the spring. Repeat application in the fall but do not use more than 4 pounds per acre per year. Add an approved non-ionic surfactant at 1 pint per 25 gallons spray mixture to improve control of small, emerged weeds.

BANANAS AND PLANTAINS--New Plantings

To control annual weeds, apply 1 ½ to 3 pounds per acre after planting but before weeds emerge. Do not apply to loose soil directly over the planting material.

Established Plantings: For control of annual and for top-kill of perennials such as bermudagrass, birdseed grass and guineagrass, apply 3 to 6 pounds per acre plus 1 pint of a suitable surfactant per 25 gallons 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 pounds 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.

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 a base of canes or bushes; for spring application, apply before germination and growth of annual weeds.

Arkansas, Florida, Georgia, Mississippi, Missouri, New Hampshire, North Carolina, South Carolina--Blueberries: Apply 1 ½ to 2 pounds per acre in the spring and repeat treatment after harvest in the fall. Add an approved non-ionic surfactant at 1 pint per 25 gallons spray mixture to improve control of small, emerged weeds.

Indiana, Michigan, and Ohio--Blueberries: Apply 2 to 4 pounds per acre in late spring; alternatively, apply 2 pounds per acre in the fall and repeat at same rate in the spring. Raspberries: Apply 3 pounds per acre in the spring.

Maine, Massachusetts--Blueberries: Apply 2 pounds per acre in the late spring.

Maryland, New Jersey--Blueberries: For control of winter annuals, apply 2 pounds per acre in October, November or December, or a single application of 2 ½ pounds per acre may be applied in early to mid spring.

California--Raspberries, Blackberries, Boysenberries, Dewberries, and Loganberries: For control of winter annuals, apply 2 pounds per acre in October or November; repeat at same rate in late spring to control summer annuals. A single application of 3 pounds 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.

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.

Diuron 80DF may be applied in citrus in combination with labeled paraquat and glyphosate formulations. Read and follow specific label instructions, precautions, and restrictions on the label of the tank mix partner with applying Diuron 80DF in combination with other products.

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Arizona (except Yuma) and California (except Imperial and Coachella Valleys): Apply 3 to 4 pounds per acre shortly after grove has been laid-up in final form (nontillage program) in late fall or early winter. Alternatively, apply 2 pounds per acre in October or November and repeat at the same rate in March or April. Subsequent annual applications of 2 to 3 pounds per acre will usually give adequate weed control.

Florida: Use only as a band application. Do not use "Trunk to Trunk."

East Coast/Flatwoods Areas - (low permeable soils): Apply from 2 pounds per acre to a maximum of 8 pounds per acre for control of annual broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds. Do not use more than 8 pounds per treated acre in any one application. Do not apply more than 12 pounds per treated acre per year. This amount corresponds to 9.6 pounds of diuron, the active ingredient in Diuron 80DF. The maximum allowable use rate for diuron is 9.6 pounds per treated acre per year inclusive of all diuron formulations used with 1 year.

Ridge Areas - Except Highland Co. - (highly permeable soils): Apply from 2 pounds per acre to a maximum of 4 pounds per acre for control of annual broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds. Do not use more than 4 pounds per treated acre in any one application. Do not apply more than 8 pounds per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in Diuron 80DF. The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used with 1 year.

Ridge Areas - Highland Co. - (highly permeable soils): Apply from 2 pounds per acre to a maximum of 4 pounds per acre for control of annual broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds. Do not use more than 4 pounds per treated acre in any one application. Do not apply more than 6 pounds per treated acre per year. This amount corresponds to 4.8 pounds of diuron, the active ingredient in Diuron 80DF. The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used with 1 year. Do not use at less than 60-day intervals.

Puerto Rico: Make a single application of 4 to 8 pounds per acre, or apply 3 to 4 pounds 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.

Texas: Apply 2 to 4 pounds per acre for annual weeds; use 4 to 6 pounds 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 (Except California)

Diuron 80DF is recommended for control of certain weeds in filbert orchards established for at least one year. Apply Diuron 80DF as a directed spray, avoiding contact on the foliage and fruit with spray or drift. Make an initial treatment of 4 to 5 pounds per acre in the late fall or early winter after harvest. Repeat annually with 3 to 4 pounds per acre, or apply 2 pounds in October or November after harvest and repeat at 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 application of Diuron 80DF (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 pounds per acre; on soils high in clay or organic matter, apply 3 to 6 pounds per acre. Apply in the spring just prior to germination and growth of annual weeds.

West of the Rocky Mountains: For best results, apply during the winter months when weeds are less than 2 inches in height or diameter. Rainfall or overhead sprinkler irrigation sufficient to wet the soil to a depth of 2 inches is necessary to activate the herbicide. Abnormally heavy rainfall following application just before spring growth may move the herbicide into the root zone of grapes which could result in injury. For initial treatment, apply 3 to 4 pounds per acre; subsequent annual applications of 2 pounds per acre will usually give adequate weed control. Do not apply to vines with trunks less than 1 1/2" in diameter as injury may result.

New York and Pennsylvania--Perennial Grass: 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" and 4" high) under the trellis at the rate of 8 to 12 pounds 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, or 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 pounds per acre immediately after harvest, preferably before weeds emerge; if weeds have emerged, add 1 pint of an approved non-ionic surfactant per 25 gallons of spray. Repeat as needed but do not exceed 10 pounds per acre per year.

OLIVES--California

Use only under trees established in the grove for at least 1 year. Apply 2 pounds 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 pounds per acre, preferably before weeds emerge; if weeds have emerged, add 1 pint of an approved non-ionic surfactant per 25 gallons of spray.

PEAS (Austrian Field)

Western Oregon: Diuron 80DF is recommended for selective control of certain weeds in Austrian field peas. Apply 1.5 to 2 pounds per acre as a broadcast spray with air or 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 lower rate on coarse-textured soils and higher rate on fine-textured soils. Do not use Diuron 80DF 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.

PEACHES

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.

DIURON 80DF Alone--Use only under trees established in the orchard for at least 3 years. Apply 2 to 5 pounds 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 80DF + Sinbar*--Use only under trees established in the orchard for at least 2 years. Apply either in spring or after harvest in the fall before weeds emerge or during early seedling stage of weed growth.

Soil Texture	Pounds Product Per Acre					
	1 to 2% Organic Matter			More than 2% Organic Matter		
	DIURON 80DF	+	Sinbar*	DIURON 80DF	+	Sinbar*
Sandy loam	1	+	1	1½	+	1½
Loam, silt loam, silt	1½	+	1½	2	+	2
Clay loam, clay	2	+	2	2	+	2

* This mixture is not registered in California.

Georgia--On trees established for at least 2 years, apply 2 to 3 pounds per acre in the spring. Repeat application in the fall but do not exceed 5 pounds per acre per year. Add an approved non-ionic surfactant at 1 pint per 25 gallons spray mixture to improve control of small, emerged weeds.

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 pounds per acre in the spring (March through May). In the Far West, treatment may be made in winter (December through February), or apply 2 pounds per acre as a postharvest treatment followed by 2 pounds in the spring.

PECANS

Use DIURON 80DF 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 gallons of water per acre. Apply in the spring before weeds emerge or during the early seedling stage of growth.

Soil Texture	Pounds Product Per Acre				
	DIURON 80DF Alone*	- or -	Tank Mixture		
			DIURON 80DF	+	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 in irrigation furrows as injury to the trees may result.

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PINEAPPLE

Hawaii and Florida

Apply 2 to 6 pounds per acre (Hawaii) or 4 to 8 pounds per acre (Florida) as a broadcast spray just before or immediately after planting but prior to weed emergence. Use 2-4 pounds per acre (Hawaii) or 4 pounds per acre (Florida) 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 2 pounds 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 pounds per acre. Do not apply more than 3 broadcast sprays (maximum 12 pounds per acre) prior to differentiation nor more than 16 pounds total per acre per plant crop. Treated areas may be planted to pineapple or sugarcane 1 year after last application.

Puerto Rico

Apply 3½ to 6½ lbs. per acre as a broadcast spray before or immediately after planting but prior to weed emergence. Application controls weeds such as pigweed, crotalaria, morningglory, purslane, crabgrass, foxtail, goosegrass, fall panicum and sourgrass.

WALNUTS (English)--California, Oregon, Washington

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

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, red cedar, Russian olive and Siberian elm. Use 2½ to 5 pounds per acre; apply as a band 4 feet wide in the tree row (2 feet on each side of row). For example, 1 oz. DIURON 80DF (4 level tablespoonfuls) treats 135 feet of tree row (2 feet on each side of row) at the rate of 5 pounds 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.

Idaho, Oregon, Washington: Diuron 80DF is recommended for control of weeds to aid in the establishment of hybrid poplar plantings. Apply 1 to 3 pounds per acre depending upon soil texture and organic matter content. Use 1 to 2 pounds per acre on coarse-textured soils and 2 to 3 pounds per acre on medium to fine textured soils. Do not use on gravelly soils or on any soil having less than 0.5% organic matter as injury to trees may result. Injury may result from applications to poplar plantings grown on sandy soil with low organic matter with sprinkler irrigation. When applied in a band, the application rate will be in proportion to the area banded on a per acre basis.

Apply in late winter or early spring as a uniform broadcast spray before or after planting but prior to bud swell, or as a directed spray after bud swell. Apply before weeds emerge or after emergence while weeds are small. Some rainfall or water is necessary to move Diuron 80DF into the weed root zone before weeds become well established. If weeds are present at time of treatment, add a surfactant at 1 to 2 quarts per 100 gallons of spray solution.

Preplant: Take precautions to prevent treated soil (usually top 1 inch) from coming into contact with roots of trees during the planting process as injury may result.

Postplant (broadcast): It is best to wait until rain or irrigation has settled the soil around the newly planted trees before applying Diuron 80DF. If trees are dormant, a broadcast application can be made.

Postplant (directed): If buds have started to swell, use a directed spray pattern that prevents Diuron 80DF from contact with trees as injury may result. During the growing season (from bud swell to leaf drop) Diuron 80DF may be applied (alone or with tank mix) between tree rows in a shielded and directed sprays.

Diuron 80DF can be tank mixed with a labeled glyphosate herbicide preplant and as a directed spray to broaden the spectrum of weeds controlled and improve postemergence activity. Use 1 to 3 pounds per acre Diuron 80DF plus glyphosate herbicide (according to label recommendations) depending upon soil type and weeds to be controlled. Note: There are several formulations of glyphosate herbicide. Check the glyphosate herbicide label to verify that the intended use as a preplant or postdirected spray on hybrid poplar plantations is allowed. Avoid contact of glyphosate herbicide with foliage, green stems, trees or other desirable vegetation because severe damage or destruction may result.

NON-CROP WEED CONTROL

DIURON 80DF is an effective herbicide for the control of many annual and perennial grasses and herbaceous weeds on non-cropland areas 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.

Tank Mixes: DIURON 80DF may be tank mixed with Arsenal* or Oust* in bare ground use areas. See the respective product labels for use rates and any additional precautions and restrictions.

DIURON 80DF 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 an approved non-ionic surfactant such as Preference® at the rate of 2 quarts per 100 gallons 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 DIURON 80DF into volume of water necessary to obtain uniform coverage. If a surfactant is used, dilute with 10 parts of water and add the surfactant as the 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 screens 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 sites, and around farm buildings, apply 5 to 15 pounds per acre to control most annual broadleaves, 5 to 8 pounds per acre to control most annual grasses, and 8 to 15 pounds per acre to control guineagrass, maidencane, and pangolagrass. In low rainfall areas, DIURON 80DF may not provide satisfactory control of deep-rooted perennial weeds.

Irrigation and Drainage Ditches: Apply 5 to 15 pounds per acre to control most annual 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 DIURON 80DF with irrigation water (to avoid possible crop injury), it is essential that the herbicide be fixed in the soil by moisture. Apply before expected seasonal 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 the ditch. Do not treat any ditch into which roots of trees or other desirable plants may extend as injury may result.

Dry Application: Diuron 80DF may be applied dry for control of the listed weeds on non-crop sites. Apply Diuron 80DF granules using dry application (ground) equipment to distribute the granules uniformly to the target area.

Notice of Warranty

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NOR IS ANY REPRESENTATIVE OF SELLER AUTHORIZED TO MAKE ANY SUCH WARRANTY OR MODIFY THESE TERMS. This warranty does not extend to the storage, handling or use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such storage, handling or use. Seller shall not be responsible for incidental or consequential damages, if any, resulting from a breach of warranty.

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Arsenal® is a registered trademark of BASF Corporation.

Sinbar® and Oust® are registered trademarks of E. I. Du Pont de Nemours and Company.