Diuron 4L

HERBICIDE

For control of many annual and perennial grasses and herbaceous weeds

GROUP	7	HERBICIDE

ACTIVE INGREDIENT	
Diuron (3-(3,4-Dichlorophenyl)-1 1-dimethylurea)*	40.0%
OTHER INGREDIENTS	60.0%
TOTAL	100.0%

*Contains 4.0 lbs. of diuron per gallon

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. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• 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 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 eye. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably 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 additional information in case of medical emergency call toll free 1-877-424-7452.	

See inside booklet for additional PRECAUTIONARY STATEMENTS.

STOP - READ LABEL BEFORE USING.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE)
Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.
All pilots, flaggers, and groundboom applicators must wear: long-sleeved shirt and long pants and shoes plus socks. In addition to the above, groundboom applicators must also wear chemical-resistant gloves.
All mixers, loaders, other applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, a NIOSH-approved particulate filtering respirator equipped with N, R, or P class filter media (the respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance, and limitations of the respirator), and a chemical-resistant apron when mixing, loading, or cleaning equipment or spills.

See engineering controls for additional requirements.

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

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Winfield Solutions, LLC
P.O. Box 64589, St. Paul, MN 55164-0589 1/1104/4

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

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticide [40 CFR 170.240 (d)(5)] for dermal protection. In addition, flaggers must wear long-sleeved shirt, long pants, shoes, and socks.

User Safety Recommendations

Users should wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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.

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 when cleaning of equipment or disposing of equipment washwaters. Apply this product only as specified on this label.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

RESISTANCE MANAGEMENT RECOMMENDATIONS

Diuron 4L is a Group 7 herbicide. Any weed population may contain or develop plants naturally resistant to Diuron 4L and other Group 7 herbicides. Weed species with acquired resistance to Group 7 may eventually dominate the weed population if Group 7 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Diuron 4L or other Group 7 herbicides.

To delay herbicide resistance consider avoiding the consecutive use of Diuron 4L or other target site of action Group 7 herbicides that have a similar target site of action on the same weed species; using tank-mixtures or premixes with herbicides from different target sites of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern; basing herbicide use on a comprehensive IPM program; monitoring treated weed populations for loss of field efficacy, or contact your local Winfield Solutions, LLC specialist for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et.al.v.EP, C01-0132C, (W.D.WA). For further information, please refer to http://www.epa.gov/espp/wtc/.

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.

For minimum early entry 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, shoes plus socks, and chemical-resistant gloves made of any waterproof material.

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 or allow others to enter until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage ~~or~~ and disposal.
PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Avoid storage at high temperatures. Do not stack over 2 pallets high. Move containers by handles or cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed and fertilizer to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled follow these steps: 1. Collect and place

in suitable containers for disposal. 2. Wash area with water and soap to remove remaining herbicide. 3. Follow washing with clean water rinse. 4. Do not allow run off to enter sewer or contaminate water supplies. 5. Dispose of waste as indicated below:
PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Use label language appropriate for container size and type.
Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.
Nonrefillable container equal to or less than 5 gallons. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Nonrefillable container greater than 5 gallons. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure or accident,
Call CHEMTREC 1-800-424-9300.**

PRODUCT INFORMATION

DIURON 4L is a liquid flowable to be mixed with water and applied as a spray for selective control of weeds in certain crops and for nonselective weed control on noncropland areas. It is noncorrosive to equipment, nonflammable and nonvolatile.

DIURON 4L 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 soils 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.

DIURON 4L 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, DIURON 4L 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.

DIURON 4L 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 a non-ionic surfactant to the spray (where recommended) increases contact effects of DIURON 4L.

DIURON 4L may be used as a directed postemergence application, where spray nozzles are adjusted so that weeds are sprayed but the crop is not. Contact of crop foliage and/or fruit with spray or mist must be avoided on the following crops as injury may occur: 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**), DIURON 4L without surfactant may be applied over the top of alfalfa (established, dormant or semi-dormant), 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 DIURON 4L and they may be more difficult to control when under stress. Combinations or tank mixes of DIURON 4L 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 4L with other products, observe all precautions, limitations and directions on labels of products used in combination with DIURON 4L.

Since the effect of DIURON 4L varies with soils, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas.

USE PRECAUTIONS:
Do not use on home plantings of trees, shrubs or herbaceous plants or lawns, walks, driveways, tennis courts or similar areas.

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

Thoroughly clean all traces of DIURON 4L from application equipment immediately after use. Flush tank, pumps, hoses and boom with several changes of water after removing nozzle tips and screens (clean parts separately).

Draining or flushing equipment on or near desirable trees or other plants or in areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots may injure these plants.

Trees or other desirable plants whose roots extend into a treated crop use area may be injured.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds.

SPRAY DRIFT MANAGEMENT

Requirements for reducing spray drift for diuron ground and aerial applications:

Use best practices to avoid drift to all other crops and non-target areas. Do not apply when conditions favor drift from target areas. The interaction of many equipment and weather-related factors determine the potential for spray drift. Avoiding spray drift at the application site is the responsibility of the applicator. The applicator must follow the most restrictive precautions to avoid drift, including those found in this labeling as well as applicable state and local regulations and ordinances. A drift control agent may reduce drift, however, it may also decrease weed control.

- Make aerial or ground applications only when the wind speed is less than or equals to 10 miles per hour.
- Do not make aerial or ground applications into the temperature inversions.
- Apply with medium or coarser spray (according to ASAE standard 572) for standard nozzles.

Additional requirement for ground applications:

- When applying to crops, apply with the nozzle height no more than 2 feet above the ground or crop canopy. When applying to non-crop areas, use lowest nozzle height consistent with the safety and efficacy. Direct spray into target vegetation.

Additional requirements for aerial applications:

- The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The boom length must not exceed 75% of the wingspan or 90% of rotor blade diameter.
- Use upwind swath displacement.
- When applying to crops, do not release spray at a height greater than 6-10 feet above the ground or crop canopy. When applying to non-crop area, apply at a minimum safe altitude above the area being treated.
- Do not apply by air if sensitive non-target crops are within 100 feet of the application site.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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 large 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 (General Techniques)

- 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 airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a 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 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application – 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 cross-wind, the swath will be displaced downwind. 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 of an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards 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).

SELECTIVE USE IN CROPS

PREEMERGENCE USE (Germinating Weeds): DIURON 4L at specified rates controls annual weeds such as:

Broadleaves and Grasses		
0.6 to 0.8 quarts/A	**1.2 to 1.6 quarts/A**	**1.6 to 4.8 quarts/A**
Barnyardgrass (watergrass) Crabgrass Lambsquarters Pigweed Purslane Ragweed	Annual bluegrass Annual groundcherry Annual morningglory Annual sweet vernalgrass Chickweed Corn spurry Dogfennel Fiddleneck (amsinckia) Foxtail Gromwell Knawel Pennycress Rattail fescue Red sprangletop Shepherdspurse Tansy mustard Velvetgrass Wild buckwheat Wild lettuce Wild mustard	Ageratum Annual lovegrass Annual ryegrass Annual smartweed Annual sowthistle Corn speedwell Dayflower Flora's paintbrush Hawksbeard Horseweed Kochia Kylinga Marigold Mexican clover Orchardgrass Peppergrass Pineappleweed Pokeweed Rabbit tobacco Ricegrass Sandbur Seedling johnsongrass Spanish needles Velvetleaf (buttonweed) Wild radish

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

0.8 quarts/A	3.2 quarts/A	6.4 to 8.0 quarts/A
Annual morningglory Cocklebur Prickly sida (teaweed) Sesbania Sicklepod	Horsenettle Quackgrass	Guineagrass Maidencane Pangolagrass

APPLICATION DIRECTIONS

POSTEMERGENCE USE (Emerged Seedling Weeds): DIURON 4L at specified rates, controls annual weeds such 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 effects of DIURON 4L. Best results are obtained on succulent weeds growing under conditions of high humidity and temperatures of 70 degrees F or higher.

GROUND APPLICATION: 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 bypass 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.

AERIAL APPLICATION: For alfalfa, barley (winter), cotton (preplant or preemergence only), grass seed crops (grown in the Pacific Northwest only), sugarcane and wheat (winter) and rights-of-way, application may be made by aircraft in a minimum of 3 gallons of water per acre unless otherwise noted. Avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur. Where land is bedded, make application parallel to rows. For all other crops other than those listed directly above, aerial application is prohibited.

SPRAY PREPARATION: Mix proper amount of DIURON 4L into necessary volume of water; where use of a non-ionic surfactant such as Preference or Activate Plus is recommended, dilute with 10 parts of water and add as last ingredient to nearly full tank.

TANK MIXTURES: DIURON 4L may be tank mixed with other herbicides and/or adjuvants registered for crop or noncrop use in this label. Refer to the label of the tank mix product(s) for any additional use instructions or restrictions. When an adjuvant is to be used with this product, Winfield Solutions, LLC recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

USE RATES: All rates of DIURON 4L 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 rates is given, use the lower rate on coarse textured soils (low in clay or organic matter) and the higher rate on 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 0.5%, 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. **Note:** For crops grown in the arid west, reductions in normal irrigation practices for the crop in production or a summer fallow period without supplemental irrigation may require the crop rotation intervals to be extended.
When such conditions occur, a field bioassay should be completed prior to planting any desired crop. A strip should cross the entire field including knolls, low areas, and areas where any berms were located. The results of this bioassay may require the rotation intervals to be extended.

FIELD CROPS
(See Soil Limitations)

A good seedbed must be prepared before preemergence use of DIURON 4L, 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 DIURON 4L 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 alfalfa/grass 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. Do not apply more than 2.4 quarts/acre per year. Apply a maximum of one application per year.

Idaho, Oregon, Washington: Use. 1.2 to 2.4 quarts. per acre. Apply in fall after alfalfa becomes dormant but no later than mid-December.

California (Dormant and Semi-Dormant Varieties): Use 1.2 to 2.4 quarts 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 4L with a suitable contact herbicide registered for such use. Sufficient rainfall for soil activation of DIURON 4L 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 1.6 quarts per acre.

Arizona, Nevada: Use 1.2 to 2.4 quarts per acre; apply in fall after alfalfa becomes dormant but no later than January.

Eastern Colorado, Kansas: For control of tansymustard, apply 0.8 quart per acre shortly after emergence of mustard in the fall or winter, use 3.2 pts. per acre if weeds are 2" to 4" in height. Alternatively if other annual weeds are present, apply 1.6 to 2.4 quarts per acre in February or March.

Other Areas Where Alfalfa Becomes Winter Dormant: Use 1.2 to 2.4 quarts per acre 1.2 to 1.6 quarts per acre east of Appalachian Mountains). Apply in March or early April, but before spring growth begins.

ARTICHOKE

California: Apply 1.6 to 3.2 quarts 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 0.8 to 1.6 quarts per acre. On soils high in clay or organic matter, use 1.6 to 3.2 quarts per acre. Two applications may be used; the first application should be made before weeds become established but no earlier that 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 season, do not exceed 2.4 quarts per acre per application. In Washington (irrigated crop), apply a single treatment of 3.2 quarts 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 1.6 to 3.2 quarts 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. Soils 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 1.2 to 1.6 quarts 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.

BERMUDAGRASS PASTURES (Newly Sprigged)

Apply 0.8 to 2.4 quarts after planting and before emergence of bermudagrass or weeds. Alternatively, for control of emerged annual weeds up to 4" in height apply 0.4 to 0.8 quart per acre; add 1 pt. of a non-ionic 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.

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 1.6 quarts 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 0.6 quart per acre in combination with nonpressure nitrogen solution. If nitrogen solution is not used, apply 0.8 quart per acre; add 1 pt. of a non-ionic 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 0.5 to 0.8 quart per acre as a broadcast or band treatment after planting but before corn emerges. Plant corn at least 1.5" 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.

Pre-plant – Louisiana: 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. Plant corn at least 1.5" deep. Do not spray over the top of corn plants. DIURON 4L may be used for burndown of existing annual weeds and residual control of weeds prior to planting field corn. **Do not use on sweet corn**. Complete any planned tillage prior to application. Apply herbicide treatments before weeds germinate or before weed seedlings are more than 2" 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 corn 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 beds.

Apply 0.5 to 0.8 quarts per acre from 15 to 45 days prior to anticipated planting. Refer to the table below for use rates in pre-plant 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 soil is applied pre-plant subsequent preemergence applications of DIURON 4L may be made. However, the total combined application rate for DIURON 4L applied pre-plant and preemergence may not exceed the maximum suggested use rate for either application method.

DIURON 4L Alone:

Soil Texture	Rate/Acre
Sandy Loam, Loam, Silt Loam, Silt	0.5 quart
Sandy Clay Loam, Clay Loam, Silty Clay Loam, Sandy Clay	0.65 quart
Silty Clay, Clay	0.8 quart

The risk of injury from pre-plant applications of DIURON 4L is reduced where substantial rainfall (greater than 0.5") occurs between application and planting.

Pre-Plant Tank Mixing: When emerged weeds taller than 2" or weeds not listed on this label are present, DIURON 4L may be tank mixed with other products labeled for pre-plant applications in corn including 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 4L plus glyphosate tank mixes.
Re-planting: Only cotton and corn may be replanted within 6 months of pre-plant applications of DIURON 4L. To avoid crop injury following re-planting, avoid disturbing the original bed.

COTTON

Use Precautions: During a single crop season, do not exceed the following amounts of DIURON 4L per acre as injury to subsequent crops may result: 0.8 quart on sandy loam; 1.5 quarts on clay loam; 2.2 quarts on clay.

- DO NOT SPRAY OVER THE TOP OF COTTON PLANTS.
- Do not apply to sand or loamy sand soils except as noted below.
- Do not use on soils with less than 1% organic matter as crop injury may result.
- Seedling disease may weaken plants and increase the possibility of injury from the use of Trifluralin products followed by DIURON 4L. These treatments should be used only in conjunction with a standard fungicide seed treatment plus a good supplemental soil fungicide program.
- Do not use DIURON 4L in pre-plant or preemergence applications where soil-applied organophosphate insecticides are used due to potential for severe cotton injury and possible stand loss.
- Do not allow livestock to graze treated cotton.
- Do not make more than 3 applications of this product per year. When DIURON 4L is used in a sequential treatment program the minimum retreatment interval is 21 days.

Preplant - Arizona and California: Use DIURON 4L alone, or apply as a separate operation following preplant broadcast treatment with Trifluralin products (incorporated according to directions on the Trifluralin product label). Apply DIURON 4L as a broadcast spray after beds are formed, pre-irrigated and final seedbeds prepared. Prior to planting, drag-off the tops of the beds and plant in moist soil not treated with DIURON 4L. 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 4L Alone: 0.8 to 1.6 quarts per acre.

DIURON 4L Following Trifluralin Products:

Soil Texture	Product per Acre - Preplant	
	Trifluralin Products	DIURON 4L
Sandy loam, loam, silt loam, silt	1 pt.	0.5 to 0.8 quart
Sandy clay loam, clay loam, silty clay loam, sandy clay, clay	1.5 pts.	0.8 to 1.0 quart

Pre-Plant – Except Arizona and California: DIURON 4L 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" tall. If weeds are emerged prior to application, the addition of a nonionic 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 0.5 to 1.6 quarts per acre from 15 to 45 days prior to anticipated planting. Refer to the table below for use rates in pre-plant 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 pre-plant, subsequent preemergence applications of DIURON 4L may be made. However, the total combined application rate for DIURON 4L applied pre-plant and preemergence may not exceed the maximum suggested use rate for either application method.

DIURON 4L Alone:

Soil Texture	DIURON 4L Per Acre
Loamy Sand (Louisiana Only)	0.5 quart
Sandy loam, loam, silt loam, silt	0.8 quart
Sandy clay loam, clay loam, silty clay loam, sandy clay	1.0 quart
Silty clay, clay	1.6 quarts

Preemergence application of herbicides with a similar mode of action to that of diuron following pre-plant application of DIURON 4L may result in cotton injury. When pre-plant applications of DIURON 4L are followed by preemergence applications of herbicides with a similar

mode of action (for example 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 4L are made less than 30 days pre-plant, on coarse-textured soils, and on soils low in organic matter. The risk of injury from pre-plant applications of DIURON 4L is reduced where substantial rainfall (greater than 0.5 inches) occurs between application and planting. Read and follow any additional precautions on this label when using this product for pre-plant weed control in cotton.

Pre-Plant Tank Mixes: When emerged weeds taller than 2" or weeds not listed on the DIURON 4L label are present, DIURON 4L may be tank mixed with other products registered for pre-plant applications in cotton. The addition of dry spray grade ammonium sulfate at the rate of 2.0% w/w (17 lbs per 100 gallons finished spray solution) is suggested to enhance performance of DIURON 4L plus glyphosate tank mixes.

Re-Planting: Only cotton and corn may be planted within 6 months of pre-plant applications of DIURON 4L. To avoid crop injury following re-planting, avoid disturbing the original bed.

Preemergence - U.S., except Arizona and California: Use DIURON 4L alone or apply as a separate operation following preplant treatment with Trifluralin products. Apply DIURON 4L 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 4L 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 4L should not be applied preemergence following application of the maximum rate for a given soil applied pre-plant. If less than the maximum rate is used pre-plant, additional DIURON 4L may be applied preemergence. However, the total amount of DIURON L applied pre-plant and preemergence must not exceed the maximum suggested use rate for either pre-plant or preemergence applications.

DIURON 4L Alone: Make a single application as a broadcast or band spray, using the following broadcast rates; for band treatment, use proportionately less.

Soil Texture*	DIURON 4L Per Acre
Sandy loam, loam, silt loam, silt	0.8 quart
Sandy clay loam, clay loam, silty clay loam, sandy clay	1.0 quart
Silty clay, clay	1.6 quarts

*For heavy clay soils (high in organic matter) use other weed killers. 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).

Preemergence Applications of DIURON 4L following Trifluralin Preplant: Apply Trifluralin product prior to planting as a broadcast or band treatment; incorporate according to directions on the Trifluralin product label. As a separate operation, apply DIURON 4L after planting but before cotton emerges. Use at the following broadcast rates; for band treatment, use proportionately less.

Soil Texture*	Product Per Acre	
	Preplant Trifluralin	Preemergence DIURON 4L
Sandy loam, loam, silt loam, silt	1 pt.	0.8 quart
Sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, clay	1 1/2 pt.	1.0 to 1.6 quarts

*For heavy clay soils (high in organic matter) use other weed killers. 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: 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.** Applications may also be made in hooded/shielded sprayers.

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 or broadcast treatment at following rates; for each 25 gals. of spray, add 1 pt. of a non-ionic surfactant. Two applications may be made if needed.

Annual Weed Problem (Up to 2" tall)	DIURON 4L per Acre
Cotton 6 to 8 inches Cotton 8 to 12 inches	0.4 quart 0.6 quart

For control of seedling perennial grasses such as johnsongrass in directed sprays and partial control of nutsedge or when weed growth is under drought stress or over 2" in height, add 1.65 to 2.0 lbs. active MSMA to above spray mixture. If MSMA is used, do not apply after first bloom.

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

Late Season (Lay-By) – Apply 0.8 to 1.2 quarts per acre 0.8 to 1.6 quarts 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 a non-ionic surfactant (1 pt. per 25 gal. spray), or use 0.4 to 0.6 quart DIURON 4L (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 4L, alone or following pre-plant application of Trifluralin products. 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 4L - 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 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 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 subsequent crops may result.

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

GRASS SEED CROPS
(Perennial except where specifically indicated)

Except as noted, apply only to established plantings at least 1 year old. Apply a single application per year at up to 2.4 quarts per acre. May be applied by aerial application in the Pacific Northwest only. Do not make more than one application per year.

Colorado, Kansas, Missouri, New Mexico and Oklahoma: On sand bluestem, side oats grama and switchgrass, apply 1.6 to 2.4 quarts 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 2.4 quarts per acre; spread unburned chaff or straw with a harrow or chopper before application.

Western Oregon, Western Washington: On alta fescue, Astoria bentgrass, Highland bentgrass, Kentucky bluegrass (Merion bluegrass) and orchardgrass, apply 1.6 to 2.4 quarts per acre between October 1 and November 15. In fields where ash residues have accumulated from burning straw, use 2.4 quarts per acre; spread unburned chaff or straw with a harrow or chopper before application. 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 1.6 quarts per acre.

Oregon, Idaho & Washington (New Plantings): For use in newly planted bentgrass, Chewing fescue, Kentucky bluegrass, perennial ryegrass, orchardgrass and tall fescue. During planting operation, spray a suitable brand 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 DIURON 4L as a single broadcast spray at rate of 2.0 to 2.4 quarts 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.

Eastern Washington, Eastern Oregon: Established Perennial Bluegrass and fescue. –Apply 0.8 to 2.4 quarts of DIURON 4L per acre as broadcast in enough diluent to get even distribution for suppression. Apply in spring before rapid growth begins and when the windgrass is still small (1 to 4 leaf). Do not use on coarse (sandy) textured soils.

Oregon and Washington: Apply in the fall to perennial ryegrass at the rate of 0.8 to 1.6 quarts per acre and to tall fescue at the rate of 1.6 to 3.2 quarts 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 to 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 one 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.

Annual Ryegrass for the Creation of Rows: Apply 0.8 to 1.6 quarts 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 4L 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") and spacing (generally 9" to 12"). Use of low pressure nozzles, shielded nozzles, or drop nozzles to reduce spray movement in 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 0.8 to 1.6 quarts 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 4L is recommended for use on healthy vigorous stands of fine fescue. DIURON 4L 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 the fall before grass weeds are beyond the 1 to 2 leaf stage and before broadleaf weeds are larger than 1" to 2" tall or across. Use the high end of the rate range for large weeds or where weed populations are high.

Approximately ½" to 1" of rainfall or sprinkler irrigation is needed to move DIURON 4L 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 4L 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: DIURON 4L can be applied either alone or in a program involving tank mixes with other herbicides and adjuvants. When using a tank mix with other herbicides, use 0.8 to 1.2 quarts 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 certain tank mix for the first time, limit use to a small area to determine safety before treating large areas.

Use 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.

Perennial Ryegrass, Tall Fescue, Kentucky Bluegrass, and Fine Fescue (Grown for Seed): For control of certain broadleaf weeds and annual grasses apply this product only to well-established vigorous stands of grasses as directed below. Use sufficient water (a minimum of 25 gallons per acre) for thorough coverage of weed foliage. For best results, make application at the onset of fall rains and before weeds become established (typically October 1 through November 15). Weeds beyond the 2 to 4 leaf stage will usually not be controlled. Use higher rates within the range listed when treating larger weeds and heavier weed infestation. Weed control may be reduced where straw or ash residues have accumulated on the soil surface. Lack of moisture to activate the herbicide may reduce weed control. Tank mixtures or sequential treatments with other herbicides may reduce crop tolerance and increase risk of crop injury. When using DIURON 4L in a tank mix or in a sequential treatment with other herbicides, do not use the maximum rates listed unless compatibility and the potential for phytotoxicity have been evaluated. Crop tolerance may be reduced and the likelihood of crop injury may increase when crop is under stress caused by weather, diseases, and insects.

Perennial Ryegrass (Established)(Oregon Only): Apply 0.8 to 1.6 quarts per acre per season (October 1 through mid-January) to control seedling grasses and broadleaf weeds such as annual bluegrass and others named on this label.

Tall Fescue (Established)(Oregon Only): Apply 1.6 to 2.4 quarts per acre per season (October 1 through mid-January) to control seedling grasses and broadleaf weeds such as rattail fescue and others named on this label.

Kentucky Bluegrass (Established stands east of the Cascade Mountains) (Oregon, Washington Only): Apply 1.2 to 2.4 quarts per acre per season (October 1 through mid-January) for suppression of rattail fescue and certain other seedling grasses and broadleaf weeds named on this label. Downy brome is not controlled. Do not use on *Poa trivialis* grass seed varieties.

Fine Fescue (Illahee, Rainier, Chewings, and related varieties including Hard Fescue) (Established stands west of the Cascade Mountains) (Oregon Only): Apply 0.8 to 1.6 quarts per acre for suppression of rattail fescue and certain other seedling grasses and broadleaf weeds named on this label. Make only 1 application per year. Do not use this product more than 2 years in succession in the same field.

Established Perennial Bluegrass (Grown for Seed) (Washington, Oregon, Idaho): Broadcast 0.4 to 1.0 quart per acre in sufficient diluent to provide even distribution of product for weed suppression. Apply in the spring before rapid growth of bluegrass begins and when windgrass is still small (1 to 4 leaf). Do not use on coarse (sandy) textured soils.

OATS

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

Drill-Planted Spring Oats - Idaho, Eastern Oregon, Eastern Washington: Use in areas where average annual rainfall exceeds 16". Make a single application of 0.8 to 1.2 quarts 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.
Drill-Planted Winter Oats and Mixtures with Peas or Vetch - Western Oregon and Western Washington: Make a single application of 1.2 to 1.6 quarts per acre as soon as possible after planting but before emergence of the crop.

PEAS (Austrian Field)

Western Oregon: DIURON 4L is for selective control of certain weeds in Austrian field peas. Apply 1.2 to 1.6 quarts DIURON 4L 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, sheperdspurse, 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 4L 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 1 year of application. Crop injury may result if severe winter stress or disease or insect damage to the crop follows application.

PEPPERMINT

Washington, Oregon, Idaho: Apply 0.6 to 0.8 quart per acre on soils having 1 to 2% organic matter. Apply 0.8 to 1.6 quarts per acre on soils having 2.1 go 3.0% organic matter. Apply 1.6 to 2.4 quarts per acre on soils having more than 3.0% organic matter.

Use 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 4L 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 the time of application, the use of a surfactant at 0.25% v/v or crop oil concentrate at 1.0% v/v may be used to increase the performance of DIURON 4L postemergence to weeds.
Tank Mixes and Sequential Treatments: DIURON 4L can be applied either alone or in a program involving tank mixes and/or sequential treatments with other herbicides and adjuvants providing DIURON 4L is not applied to actively growing mint plants.

When using a tank mix with other herbicides, use the lower end of the DIURON 4L 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 1.6 quarts per acre on established red clover stands (at least 9 months). Apply DIURON 4L 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 as injury to subsequent crops may result.

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

SORGHUM (Grain)

Southwestern States: Apply 0.2 to 0.4 quart per acre; add 1 pt. of a non-ionic surfactant per 25 gals. of spray. Apply as a directed postemergence spray after sorghum is 15" tall to control weeds 2" to 4" in height. DO NOT SPRAY OVER TOP OF SORGHUM. Use the lower rates on broadleaf weeds up to 2" tall; use the higher rate on grasses up to 2" and broadleaf 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 0.4 quart 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 DIURON 4L 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. Application over emerged cane should be made only as directed below without the addition of a surfactant or crop oil concentrate.

DIURON 4L may be applied as a directed spray (including hooded and shielded spray) in combination with paraquat. Consult the label of the tank mix partner for rates and timings of application, restrictions and precautions.

Florida Preemergence - For high organic soils, apply 1.6 to 3.2 quarts per acre as a broadcast or band spray prior to weed emergence after planting or after harvesting plant crop (for ratoon crop).

Florida Postemergence - Make 1 or 2 applications of 1.6 quarts per acre as needed by directed spray inter-row. Alternatively, for panicum control, make up to 3 applications of 0.4 to 0.8 quart per acre as a directed spray after cane has emerged but before panicum exceeds 2" in height: add 1 qt. of a non-ionic surfactant per 100 gals. 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 or drift. Do not apply more than 4.8 quarts total per acre between planting (or ratooning) and harvest.

Hawaii Postemergence: Apply 1.6 to 4.8 quarts per acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop or ratoon crop. A second and third application of 1.6 to 3 quarts per acre may be made as a broadcast spray over emerged cane or by directed spray inter-row.

If weeds are emerged, add a non-ionic surfactant to the spray at the rate of 1 to 2 qts. per 100 gals. and apply as directed spray. DO NOT SPRAY OVER TOP OF CANE**.**

Do not apply more than 3 treatments or more than 9.6 qts. in Hawaii total per acre between planting (or ratooning) and harvest. Treated areas may be planted to sugarcane or pineapple one year after last application.

Puerto Rico Postemergence : Apply 3.2 to 5.0 quarts per acre as a broadcast spray prior to weed emergence after planting or after harvesting plant crop or ratoon crop. A second and third application of 1.6 to 3.2 quarts per acre may be made as a broadcast spray over emerged cane or by directed spray inter-row.

If weeds are emerged, add a non-ionic surfactant to the spray at the rate of 1 to 2 qts. per 100 gals. and apply as directed spray. DO NOT SPRAY OVER TOP OF CANE.

Do not apply more than 3 treatments or more than 8 quarts per acre in Puerto Rico between planting (or ratooning) and harvest. Treated areas may be planted to sugarcane or pineapple one year after last application.

Louisiana, Texas: Apply 2.4 to 3.0 quarts per acre. DIURON 4L may be applied as a broadcast spray after planting and following the harvesting of sugarcane. DIURON 4L may also be applied broadcast in late winter. Application is best when made prior to weed emergence. DIURON 4L may also 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" 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.

Use Precautions: Temporary leaf yellowing may occur following application. Do not apply more than 6 quarts per acre broadcast per year. Use proportionately less for band applications.

TRITICALE (Oregon Only)

Crop injury may result where severe winter stress, disease, or insect damage follows application. Winter-sensitive varieties may be less tolerant of DIURON 4L than winter-hardy varieties.
Crop injury may result from failure to observe the following:

- Do not use on sand or loamy sand soils or on gravelly or sandy loams with less than 1% organic matter.
- Do not use on thinly covered or exposed subsoils (clay knolls). Do not treat triticale planted less than 1" deep.
- Do not treat triticale where winter climatic conditions have caused "heaving" of plants.
- Do not treat triticale plants lacking in vigor due to poor emergence, insect damage, disease, high alkalinity, or other causes.
- Do not apply after triticale has reached the "boot stage" of maturity.
- Unless specified otherwise, do not use with surfactants or nitrogen solution.
- 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.

East of Cascade Range: Where average annual rainfall exceeds 16 inches, make a single application at the rate of 0.8 to 1.2 quarts per acre. For early fall planted triticale (seeded before September 10), apply 3 to 6 weeks after planting but before weeds are 3 to 4 inches tall. Treatment after October 1 has generally given best results. Application should not be made after soil freezes in the fall. Triticale planted in late October should not be treated until the following spring. For spring treatment, apply as soon as triticale starts to grow. 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 0.4 to 0.8 quart DIURON 4L plus 0.25 lb. bromoxynil per acre as a tank mix, in either the fall after triticale has emerged but before soil freezes or in the spring as soon as soil thaws. Apply before weeds are more than 2" tall or across.

Where average annual rainfall is 10" to 16", following fall planting, make a single application of 0.8 to 1.2 quarts per acre where sufficient moisture is available to germinate triticale seed. Apply before soil freezes and before weeds are 2" tall. Application later than March 1 may give poor results. If fall planted triticale 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 triticale. Spring triticale 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 make a second application during the same crop year or injury to the crop may result.

West of Cascade Range: Make a single application of 1.2 to 1.6 quarts per acre as soon as possible after planting. If triticale and weeds have emerged, apply before weeds are 3" to 4" tall. Alternatively, apply a tank mixture of DIURON 4L plus bromoxynil as detailed above in East of Cascade Range section.

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

WHEAT (WINTER)

Use Precautions: Crop injury may result where severe winter stress, disease or insect damage follows application; winter-sensitive varieties may be less tolerant of DIURON 4L than winter-hardy varieties.
Crop injury may also result from failure to observe the following:

- Do not use on sand soils, 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 wheat where winter climate 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 DIURON 4L in combination with surfactants or nitrogen solutions unless otherwise specified.
- 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 0.8 to 1.2 quarts 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 0.4 to 0.8 quart DIURON 4L plus 1/4 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 following planting: After wheat is planted in the fall, make a single application of 0.8 to 1.2 quarts per acre where 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 1.2 to 1.6 quarts 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 4L plus bromoxynil as detailed above for "East of Cascade Range".

Other Areas of Oregon, 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 0.8 to 1.6 quarts per acre.

Kansas, Oklahoma and Texas: Do not use on sand or sandy loam soils. Use 0.8 quart per acre on silt and silt loam soils and 1.2 to 1.6 quarts per acre on clay, clay loam, and silty clay loam soils.

Northeast: Use 0.8 to 1.2 quarts per acre.

FRUIT AND NUT CROPS
(See Soil Limitations)

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

APPLE

Use DIURON 4L alone, or apply as a tank mixture with Terbacil. Do not apply more than 3.2 quarts per application and 3.2 quarts per acre per year. When using this product in a sequential treatment program, allow a minimum of 90 days between applications. Do not make more than two applications of this product per year.

DIURON 4L 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 3.2 quarts per acre in the spring (March through May). In the Far West, apply 3.2 quarts per acre to small weeds less than 2 inches in height or diameter under dormant tress. Alternatively, treatments to small weeds may be applied at 1.6 quarts per acre postharvest followed by 1.6 quarts per acre at bud break.

DIURON 4L plus Terbacil - 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	Amount of Product Per Acre	
	1% to 2% Organic Matter	More Than 2% Organic Matter
	DIURON 4L plus Terbacil	DIURON 4L plus Terbacil
Sandy loam	0.8 quart + 1 lb.	1.2 quarts + 1 to 1.5lbs.
Loam, silt loam, silt	1.2 quarts + 1.5 lbs.	1.6 quarts + 2 lbs.
Clay loam, clay	1.6 quarts + 2 lbs.	1.6 quarts + 2 lbs.

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.

Georgia - Apply 1.6 to 2.4 quarts per acre in the spring. Repeat application in the fall but do not use more than 3.2 quarts per acre per year. Add a non-ionic surfactant at 1 pint per 25 gals. spray mixture to improve control of small emerged weeds.

BANANA AND PLANTAIN

New Plantings: To control annual weeds, apply 1.2 to 2.4 quarts per acre after planting but before weeds or crop 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 2.4 to 4.8 quarts per acre plus 1 pint of a non-ionic surfactant (or suitable equivalent) 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 mixture. Repeat treatment as needed, but do not apply more often than 6-week intervals nor more than a total of 9.6 quarts 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.

BLUEBERRY, CANEBERRY, GOOSEBERRY

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.

Arkansas, Florida, Georgia, Mississippi, Missouri, New Hampshire, North Carolina, South Carolina - Blueberries: Apply 1.2 to 1.6 quarts per acre in the spring and repeat treatment after harvest in the fall. Add a non-ionic surfactant at 1 pint per 25 gals. spray mixture to improve control of small, emerged weeds.

Indiana, Michigan and Ohio - Blueberries: Apply 1.6 to 3.2 quarts per acre in late spring; alternatively, apply 1.6 quarts per acre in the fall and repeat at same rate in the spring.

Indiana, Michigan and Ohio – Raspberries: Apply 2.4 quarts per acre in late spring.

Maine, Massachusetts - Blueberries: Apply 1.6 quarts per acre in late spring.

Maryland, New Jersey - Blueberries: For control of winter annuals, apply 1.6 quarts per acre in October, November or December, or a single application of 2.0 quarts per acre may be applied in early to mid spring.

California - Raspberries, Blackberries, Boysenberries, Dewberries and Loganberries: For control of winter annuals, apply 1.6 quarts per acre in October or November; repeat at same rate in late spring to control summer annuals. A single application of 2.4 quarts 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: For control of winter annuals, apply 1.6 quarts per acre in October or November; repeat at same rate in late spring to control summer annuals. A single application of 2.4 quarts 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.

CITRUS

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.

DIURON 4L may be applied in citrus in combination with registered paraquat and glyphosate formulations. Read and follow specific label instructions, precautions, and restrictions on the label of the tank mix partner when applying DIURON 4L in combination with other products.

Note: For citrus trees less than 4 years old, a maximum of 2 applications per year is allowed. When this product is used in a sequential treatment program, allow a minimum of 60 days between applications. For citrus trees 4 years of age or more, a maximum of 2 applications per year is allowed. When this product is used in a sequential treatment program, allow a minimum of 80 days between applications.

Arizona (except Yuma area) and California (except Imperial and Coachella Valleys): Apply 2.4 to 3.2 quarts per acre shortly after grove has been laid-up in final form (nontillage program) in late fall or early winter. Alternatively, apply 1.6 quarts per acre in October or November and repeat at the same rate in March or April. Subsequent annual applications of 1.6 to 2.4 quarts per acre will usually give adequate weed control.

Do not use more than 3.2 quarts per treated acre in any one application. Do not apply more than 6.4 quarts per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in Diuron 4L. The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within one year.

Florida: Use only as a band application. Do not use “trunk to trunk”.

- **East Coast and Florida/Flatwoods Areas – (low permeable soils):** Apply from 1.6 quarts per acre to a maximum of 6.4 quarts 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 6.4 quarts per treated acre in any one application. Do not apply more than 6.4 quarts per treated acre per year. This amount corresponds to 6.4 pounds of active ingredient. The maximum allowable use rate for diuron is 6.4 pounds active ingredient per treated acre per year inclusive of all diuron formulations used within 1 year.
- **Ridge Areas – Except Highland Co. – (highly permeable soils):** Apply from 1.6 quarts per acre to a maximum of 3.2 quarts per acre for control of annual broadleaf weeds and annual grasses. Addition of an approved surfactant will improve control of emerged weeds. Do not apply more than 3.2 quarts per treated acre in any one application. Do not apply more than 6.4 quarts per treated acre per year. This amount corresponds to 6.4 pounds of active ingredient. The maximum allowable use rate for diuron is 6.4 pounds active ingredient per treated acre per year inclusive of all formulation used within 1 year.
- **Ridge Areas – Highland Co. – (highly permeable soils):** Apply from 1.6 quarts per acre to a maximum of 3.2 quarts 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 3.2 quarts per treated acre in any one application. Do not apply more than 4.8 quarts per acre per year. This amount corresponds to 4.8 pounds of diuron, the active ingredient in Diuron 4L. The maximum allowable use rate for diuron is 4.8 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 3.2 quarts per acre or apply 2.4 to 3.2 quarts 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.

Do not use more than 3.2 quarts per treated acre in any one application. Do not apply more than 6.4 quarts per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in Diuron 4L. The maximum allowable use rate for diruon is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within one year.

Texas: Apply 1.6 to 3.2 quarts per acre for annual weeds; use 3.2 quarts per acre for control of johnsongrass seedlings. Best results accompany application in the spring; well established weeds should be eliminated by cultivation prior to treatment.

Do not use more than 3.2 quarts per treated acre in any one application. Do not apply more than 6.4 quarts per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in Diuron 4L. The maximum allowable use rate for diruon is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within one year.

FILBERTS

DIURON 4 L is recommended for control of certain weeds in filbert orchards established for at least 1 year.
Do not apply more than 2.2 quarts per acre per application nor more than 3.2 quarts per acre per year. When using DIURON 4L in a sequential treatment program, allow a minimum of 150 days between applications. Apply a maximum of 2 applications per year. Apply DIURON 4L as directed spray avoiding contact on the foliage and fruit with spray or drift. Make an initial treatment of 2.2 quarts per acre in the last fall or early winter after harvest. Repeat annually with 2.2 quarts per acre or apply 1.6 quarts per acre 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 applications of DIURON 4L (at proportionately lower rates) may be made near the trees or to the tree rows perpendicular to the slope.

GRAPE

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. Do not apply more than 4 quarts per acre per application and do not apply more than 8 quarts per acre per year. A maximum of two applications per year may be applied and the minimum retreatment interval is 90 days. Avoid direct or indirect spray contact to foliage and green bark (nonbarked vines with the exception of undesirable suckers).

East of the Rocky Mountains: On soils low in clay or organic matter (1 to 2%), apply 1.6 to 2.4 quarts per acre; on soils high in clay or organic matter, apply 2.4 to 4.8 quarts 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" in height or diameter. For initial treatment apply 2.4 to 3.2 quarts per acre; subsequent annual applications of 1.6 quarts 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. Rainfall or overhead sprinkler irrigation sufficient to wet the soil to a depth of 2" is necessary to active the herbicide. Abnormally heavy rainfall following application just before sprint growth may move the herbicide into the root zone of grapes which could result in injury.

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 6.4 to 8.0 quarts 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 1.6 to 4.8 quarts per acre immediately after harvest preferably before weeds emerge; if weeds have emerged, add 1 pint of a non-ionic surfactant per 25 gals. of spray. Retreat as needed but do not exceed 8.0 quarts per acre per year.

OLIVE

California: Use only under trees established in the grove for at least 1 year. Apply 1.6 quarts 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.

PAPAYA

Use only under trees established in the orchard for at least 1 year. Apply 2.0 to 4.0 quarts per acre, preferably before weeds emerge; if weeds have emerged, add 1 pint of a non-ionic per 25 gals. of spray.

PEACH

Use DIURON 4L alone, or apply as a tank mixture with Terbacil.
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, or 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 4L Alone: Use only under trees established in the orchard for at least 3 years. Apply 1.6 to 2.2 quarts per acre in the early spring before weeds emerge or during the early seedling stage of weed growth. Do not apply more than 2.2 quarts per acre per application in all areas except California. In California, apply 1.6 to 3.0 quarts per acre; do not apply more than 3 quarts per acre per application. Do not apply within 3 months of harvest; in the Far West, do not apply within 8 months of harvest.

Georgia - On trees established for at least 2 years, apply 1.6 to 2.2 quarts per acre in the spring. Repeat application in the fall but do not exceed 4.0 quarts per acre per year. Add a non-ionic surfactant at 1 pint per 25 gals. spray mixture to improve control of small, emerged weeds.

DIURON 4L plus Terbacil - 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 seedling stage of weed growth.

Soil Texture	Amount of Product Per Acre	
	1% to 2% Organic Matter	More Than 2% Organic Matter
	DIURON 4L plus Terbacil	DIURON 4L plus Terbacil
Sandy loam	0.8 quart + 1 lb.	1.2 quarts + 1.5 lbs.
Loam, silt loam, silt	1.2 quarts + 1.5 lbs.	1.6 quarts + 2 lbs.
Clay loam, clay	1.6 quarts + 2 lbs.	1.6 quarts + 2 lbs.

PEAR

Use only under trees established in the orchard for at least 1 year; do not treat varieties grafted on full-dwarf root stocks. Apply 3.2 quarts per acre in the spring (March through May). In the Far West, apply 3.2 quarts per acre to weeds less than 2" in height or diameter under dormant trees or apply 1.6 quarts per acre, to small weeds, as a post-harvest treatment followed by 1.6 quarts in the spring prior to budbreak.

PECAN

Use DIURON 4L alone or apply as a tank mixture with Terbacil. 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	DIURON 4L Alone*	Tank Mixture DIURON 4L plus Terbacil**
Sandy loam	1.6 quarts	1.2 quarts + 1.5 lbs.
Loam, silt loam, silt	2.4 quarts	1.4 quarts + 1.75 lbs.
Clay loam, clay	3.2 quarts	1.6 quarts + 2.0 lbs.

* Use only on trees established in the grove for at least 3 years and on soils with at least 1/2% 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 or 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: Apply 1.6 to 4.8 quarts per acre as a broadcast spray just before or immediately after planting but prior to weed emergence. Use 1.6 to 3.2 quarts per acre after harvesting plant crop or ratoon crop (for the first ratoon crop as well as subsequent ratoon crops) but before differentiation. For plant crop only, a second and third broadcast or interspace application may be made prior to differentiation at a rate of 1.6 quarts per acre at intervals of not less than 2 months. Additional applications to plant crop may be made as needed to interspace only using 1.6 quarts per acre. Do not apply more than 3 broadcast sprays (maximum 9.6 quarts per acre) prior to differentiation or more than 12.8 quarts total per acre per plant crop. Treated areas may be planted to pineapple or sugarcane 1 year after last application.

Florida: Apply 3.2 to 5.0 quarts per acre as a broadcast spray just before or immediately after planting but prior to weed emergence. For ratoon crop use 3.2 quarts per acre after harvesting plant crop. For plant crop only, a second and third broadcast or interspace application may be made prior to differentiation at a rate of 1.6 quarts per acre at intervals of not less than 2 months. Additional applications to plant crop may be made as needed to interspace only using 1.6 quarts per acre. Do not apply more than 3 broadcast sprays (maximum 9.6 quarts per acre) prior to differentiation or more than 12.8 quarts total per acre per plant crop. Treated areas may be planted to pineapple or sugarcane 1 year after last application.

Puerto Rico: Apply 3.0 to 5.0 quarts per acre as a broadcast spray just before or immediately after planting but prior to weed emergence. Preemergence application controls weeds such as pigweed, crotalaria, morningglory, purslane, crabgrass, foxtail, goosegrass, fall panicum, and sourgrass.

WALNUT (ENGLISH)

California, Oregon, Washington: Use only under trees established in the orchard for at least 1 year. As an initial treatment, apply 2.2 quarts per acre after the orchard has been laid-up in final form (nontillage program) in late fall or early winter. Retreat annually with 1.6 to 2.2 quarts per acre. Alternatively, apply 1.6 quarts per acre in October or November and repeat at the same rate in March or April. In California, apply 1.6 to 3.0 quarts per acre; the maximum rate per application is 3 quarts per acre and the maximum application rate per year is 3 quarts per acre. In all areas except California, the maximum application rate is 2.2 quarts per acre and the maximum application rate per year is 3.2 quarts per acre.

- Apply a maximum of two applications per year.
- The minimum retreatment interval is 150 days.
- Do not use on sand, loamy sand, gravelly soils, or exposed sub-soils, or 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 3.2 quarts 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 2.4 quarts 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, red cedar, Russian olive and Siberian elm. Use 2.0 to 4.0 quarts per acre; apply as a band 4 ft. wide in the tree row (2 ft on each side of row). For example,1.6 ounces DIURON 4L treats 135 feet of tree row (2 ft. on each side of row) at the rate of 4 quarts 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 4L is recommended for control of weeds to aid in the establishment of hybrid poplar plantings. Apply 0.8 to 2.4 quarts per acre depending upon soil texture and organic matter content. Use 0.8 to 1.6 quarts per acre on coarse–textured soils and 1.6 to 2.4 quarts 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 area small. Some rainfall or water is necessary to move DIURON 4L 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.

POST-PLANT (BROADCAST): It is best to wait until rain or irrigation has settled the soil around the newly plant trees before applying DIURON 4L. If trees are dormant, a broadcast application can be made.

POST-PLANT (DIRECTED): If buds have started to swell, use a directed spray pattern that prevents DIURON 4L from contact with trees as injury may result. During the growing season (from bud swell to leaf drop), DIURON 4L may be applied (alone or with tank mix) between tree rows in shielded and directed sprays.

DIURON 4L can be tank mixed with a glyphosate herbicide preplant and as a directed spray to broaden the spectrum of weeds controlled and improve post-emergence activity. Use 0.8 to 2.4 quarts DIURON 4L 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 pre-plant or post-directed 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 4L 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.

DIURON 4L may be used as a preemergence treatment at anytime 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 a non-ionic 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 degrees F.

Except for small areas, use a fixed-boom power sprayer properly calibrated to insure a constant rate of application. Mix proper amount of DIURON 4L into volume of water necessary to obtain uniform coverage: If a non-ionic 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 by-pass 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.

Note: DIURON 4L may be applied by either ground application equipment or by air application (helicopter only) for the control of various weeds and grasses in rights-of-way sites. When making aerial applications, apply in sufficient water volume to ensure thorough coverage of the site to be treated; generally 3 gallons of water per acre are sufficient.

General Weed Control: To control most annual weeds for an extended period of time on uncultivated nonagricultural areas, uncultivated agricultural areas, and industrial sites and non-cropland (such as airports, utility, highway, pipeline and railroad rights-of-way including switch yards, sewage disposal areas, petroleum tank farms, lumberyards, storage areas, industrial plant sites, farmyards, fuel storage areas, fence rows, barrier strips and around farm buildings) -- apply 4 to 12 quarts per acre to control most annual weeds.

Broadleaves			
4 to 12 quarts/acre			
Ageratum	Hawksbeard	Pineappleweed	Sowthistle, Annual
Chickweed	Horsenettle	Pokeweed	Spanishneedles
Cocklebur	Horseweed	Prickly Lettuce	Tansymustard
Corn Speedwell	Knawel	Prickly Sida (Teaweed)	Velvetleaf (Buttonweed)
Corn Spurry	Kochia	Purslane	Wild Buckwheat
Dayflower	Lambsquarter	Rabbit Tobacco	Wild Lettuce
Dogfennel	Marigold	Ragweed	Wild Mustard
Fiddleneck (Amsinckia)	Mexican Clover	Sesbania	Wild Radish
Flora's Paintbrush	Morningglory, Annual	Sherpherdspurse	
Gromwell	Pennycress	Sicklepod	
Groundcherry, Annual	Pigweed	Smartweed, Annual	
Grasses			
4 to 6.4 quarts/acre			
Barnyardgrass (Watergrass)	Lovegrass, Annual	Red Sprangletop	Velvetgrass
Bluegrass, Annual	Orchardgrass	Ricegrass	Vernalgrass, Sweet, Annual
Crabgrass	Peppergrass	Ryegrass, Annual	
Foxtail	Quackgrass	Sandbur	
Kyllinger (Kyllinga)	Rattail Fescue	Seedling, Johnsongrass	
6.4 to 12 quarts/acre			
Guineagrass	Maidencane	Pangolagrass	

Irrigation and Drainage Ditches: Apply 4 to 12 quarts per acre to control most annual weeds as shown above.~~;~~ 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 4L 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 any waste water remaining before using ditch. Do not treat any ditch into which roots of trees or other desirable plants may extend as injury may result.

- Maximum rate per application is 12 quarts per acre in areas of high rainfall or dense vegetation.
- Maximum rate per application is 8 quarts per acre in all other areas.
- Apply a maximum of 2 applications per year.
- The minimum retreatment interval is 90 days.

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