352-678 2/15/2011 1 of 23

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

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

FEB 15 2011

Richard Ambrose
E. I. du Pont de Nemours and Company
1007 Market Street
Wilmington, DE 19898

Subject: Label Amendment (change ingredients statement, container disposal, remove preemergence use on corn, revise summer fallow winter wheat directions)
DuPont Direx 4L Herbicide
EPA Reg. No. 352-678
Application Dated March 12, 2010
Resubmission Dated February 10, 2011

Dear Mr. Ambrose:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after eighteen (18) months from the date of this letter or the next printing of the label, whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Mindy Ondish at 703-605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Kable Bo Davis
Product Manager 25
Herbicide Branch
Registration Division (7505P)

H -

DuPont™ Direx® 4L

herbicide

DRAFT LABEL

ACCEPTED
FEB 15 2011
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 352-678

DUPONT®

DuPont™ Direx® 4L

herbicide

Diuron Liquid Flowable Herbicide

Active Ingredients	By Weight
Diuron: 3- [3,4-dichlorophenyl]-1, 1-dimethylurea	40.9%
Other Ingredients	59.1%
TOTAL	100.0%

*Contains 4.0 Pounds of Diuron Per Gallon

EPA Reg. No. 352-678 EPA Est. No. _____

Nonrefillable Container
Net: _____
OR
Refillable Container
Net: _____

KEEP OUT OF REACH OF CHILDREN
CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID

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

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: 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 medical emergencies involving this product, call toll free 1-800-441-3637.** See Label for Additional Precautions and Directions for Use.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if swallowed.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistant category selection chart.

Pilots, flaggers and groundboom applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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 polyvinylchloride.
- A NIOSH approved dust/mist filtering respirator with any N, R, P, or HE filter or with approval number prefix TC-21C.
- Chemical resistant apron when mixing, loading, or cleaning equipment or spills.

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.

See "Engineering Control Statement" for additional requirements.

ENGINEERING CONTROL STATEMENT

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in 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 (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection.

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. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning of equipment or disposing of equipment washwaters. Cover or incorporate spills.

PRODUCT INFORMATION

DuPont™ DIREX® 4L herbicide must be used only in accordance with instructions on this label, or in separate published instructions.

DIREX® 4L is 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 non-cropland areas. It is non-corrosive to equipment, non-flammable and non-volatile.

DIREX® 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 soil low in clay or organic matter for equivalent herbicide performance. Moisture is required to activate the herbicide. Best results occur if rainfall (or sprinkler irrigation) occurs within 2 weeks of application.

DIREX® 4L applied before emergence of crop and weeds is an effective procedure because susceptible weeds are controlled in an early, vulnerable seedling stage before they compete with the crop. With favorable moisture conditions, DIREX® 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.

DIREX® 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 temperature of 70°F or higher. Addition of a surfactant to the spray (where recommended) increases contact effects of DIREX® 4L.

DIREX® 4L may be used as a directed postemergence application. Contact of crop foliage and/or fruit with spray or mist must be avoided on the following crops: artichoke, corn (field), cotton, sorghum (grain), sugarcane and established plantings of apples, bananas, plantains, blueberries, caneberries, gooseberries, citrus, grapes, macadamia nuts, olives, papayas, peaches, pears, pecans, walnuts and certain tree plantings as injury may occur.

Under specified conditions (see CROP USES), DIREX® 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 and pineapple.

Weeds species vary in susceptibility to DIREX® 4L and they may be more difficult to control when under stress. Combinations of DIREX® 4L with other herbicides (as registered) increase the number of weed species controlled. Consult labels of the companion product for this and other information. Observe all precautions and limitations on labeling of all products used in mixtures.

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

IMPORTANT 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 DIREX® 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.

RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

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. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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 vs EPA**, C01-132C (W.D. W.A.). For information, please refer to www.epa.gov/espp/litstatus/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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

SELECTIVE USE IN CROPS

Preemergence Use (Germinating Weeds): DuPont™ DIREX® 4L, at specified rates, controls annual weeds and grasses such as:

0.6 to 0.8 Quarts/Acre	1.2 to 1.6 Quarts/Acre	1.6 to 4.8 Quarts/Acre
Barnyardgrass (Watergrass)	Bluegrass, Annual	Ageratum
Crabgrass	Chickweed	Corn Speedwell
Lambsquarter	Corn Spurry	Dayflower
Pigweed	Dogfennel	Flora's Paintbrush
Purslane	Fiddleneck (Amsinckia)	Hawksbeard
Ragweed	Foxtail	Johnsongrass (Seedling)
	Gromwell	Kyllinger (Kyllinga)
	Grouncherry, Annual	Lovegrass, Annual
	Knawel	Marigold
	Morningglory, Annual	Mexican Clover
	Pennycress	Orchardgrass
	Rattail Fescue	Peppergrass
	Red Sprangletop	Pineappleweed
	Shepherdspurse	Pokeweed
	Tansymustard	Rabbit Tobacco
	Velvetgrass	Ricegrass
	Vernalgrass, Sweet, Annual	Ryegrass, Annual
	Wild Buckwheat	Sandbur
	Wild Lettuce	Smartweed, Annual
	Wild Mustard	Sowthistle, Annual
		Spanish Needles
		Velvetleaf (Buttonweed)
		Wild Radish

PARTIAL CONTROL

0.8 Quarts/Acre	3.2 Quarts/Acre	6.4 to 8.0 Quarts/Acre
Chickweed	Horsenettle	Guineagrass
Cocklebur	Quackgrass	Maidencane
Field Pennycress		Pangolagrass
Henbit		
Marestail		
Morningglory, annual		
Prickly sida (teaweed)		
Sesbania		
Shepherd's-purse		
Sicklepod		
Velvetleaf		
Waterhemp		

APPLICATION DIRECTIONS

AERIAL APPLICATION: For alfalfa, barley (winter), cotton (preplant or preemergence only), grass seed crops (PNW only), sugarcane and wheat (winter), application may be made by aircraft in a minimum of 3 gallons of water per acre. Avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur. Where land is bedded, make application parallel to rows.

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

PREEMERGENCE: For preemergence application, use sufficient spray volume and pressure to uniformly distribute the spray solution over treated soil. Preemergence weed control will be reduced on high organic matter soils such as peat or muck.

POSTEMERGENCE: For postemergence application, use sufficient spray volume and pressure for thorough coverage of weed foliage. For selective applications and applications near sensitive crops, use low spray pressure to keep spray drift to a minimum. DuPont™ DIREX® 4L at specified rates controls seedling annual weeds such as annual morningglory, barnyardgrass (watergrass), crabgrass, crowfoot, goosegrass, pigweed and purslane. Addition of a surfactant to the spray (where recommended) increases contact effects of DIREX® 4L. Best results are obtained on succulent weeds growing under conditions of high humidity and temperatures of 70° F or higher.

SPRAY PREPARATION: Mix proper amount of DIREX® 4L into necessary volume of water. Where use of a surfactant is recommended, dilute with 10 parts of water and add as last ingredient to nearly full spray tank.

TANK MIXTURES: DIREX® 4L may be tank mixed with other herbicides and/or adjuvants registered for crop or non-crop use in this label. Refer to the label of the tank mixture partner(s) for any additional use instructions or restrictions.

REPLANTING

If initial seeding fails to produce a crop, any crop registered for the rate of DIREX® 4L that was applied may be replanted immediately. Thoroughly rework the soil before replanting. Do not retreat field with a second application as injury to the crop may result.

CROP ROTATION: Unless otherwise directed in a specific crop section of this label, do not rotate treated areas to any crop within 2 years after last application as injury to subsequent crop(s) may result.

For crops grown in the arid west and other arid areas: 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 (see specific Crop Uses sections for crop-specific rotation intervals or refer to the Crop Rotation section above).

When such conditions occur, a field bioassay should be completed prior to planting any desired crop. A successful bioassay means growing to maturity a test strip of the crop(s) intended for production. The test crop(s) 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.

RATES: All rates of DIREX® 4L are expressed as broadcast rates. Where band applications are specified use proportionately less. For example, use 1/3 of the broadcast rate when treating a 14 inch band where row spacing is 42 inches. Where a range of dosages is given, use the lower rate on coarse textured soils low in clay or organic matter and the higher rate on fine textured soils high in clay or organic matter. For postemergence application, use the lower rate on smaller weeds and the higher rate on the 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), citrus, corn, cotton, grapes, oats, olives, papayas, peaches, pears, sorghum, sugarcane, walnuts, and winter wheat 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%.

FIELD CROPS (See Soil Limitations): A good seedbed must be prepared before preemergence use of DIREX® 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, the surface of the soil should not be cultivated or disturbed after application of DIREX® 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.

FRUIT AND NUT CROPS (See Soil Limitations): Unless otherwise directed, make single application per year as a directed spray, avoiding contact of foliage and fruit with spray or drift. Do not graze livestock in treated orchards or groves.

CROP USES

ALFALFA

Treat only vigorous, healthy stands of alfalfa that have been established for at least one full growing season. 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. In alfalfa, DIREX® 4L may only be applied once per year. Do not exceed 2.4 quarts per acre per year. Avoid overlapping of spray swaths and shut off spray booms while starting, turning, slowing or stopping or crop injury may result.

ARIZONA, CALIFORNIA, IDAHO, NEVADA, OREGON, WASHINGTON

APPLICATION INFORMATION

Severe alfalfa injury may result following application after cutting if either the regrowth is more than 2 inches high, significant stubble is left after alfalfa cutting or grazing, or the air temperature is above 90 degrees F.

For best results, apply before weeds have emerged or become established (2 inches in height or diameter). Control of established weeds is improved by applying DuPont™ DIREX® 4L with a suitable contact herbicide (except Non-Dormant varieties). Sufficient rainfall or irrigation is needed for soil activation of DIREX® 4L.

Treated areas may be replanted to any crop after 1 year from last application if the rate does not exceed 1.6 quarts per acre.

NON-DORMANT AND SEMI-DORMANT VARIETIES
Make a single application of 1.2 to 2.4 quarts per acre during the winter months when alfalfa plants are in the least active stage of growth.

DORMANT VARIETIES
Make a single application of 1.2 to 2.4 quarts per acre after alfalfa becomes dormant and before new growth exceeds 2 inches in height in the spring. Where weeds have emerged, include a surfactant or use a tank mixture with the specified rate of paraquat.

EASTERN COLORADO, KANSAS: For control of tansymustard, apply 0.8 quarts per acre shortly after emergence of mustard in the fall or winter. Use 1.6 quarts per acre if weeds are 2 to 4 inches 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.

APPLE

Use DIREX® 4L 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 from 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 trees. Alternatively, treatments to small weeds may be applied at 1.6 quarts per acre post-harvest followed by 1.6 quarts per acre prior to bud break.

Do not apply more than 3.2 quarts per acre per year. When using DIREX® 4L in a sequential treatment program, allow a minimum of 90 days between applications. Do not make more that two applications of DIREX® 4L per year.

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 surfactant to improve control of small, emerged weeds.

DIREX® 4L PLUS TERBACIL 80 WP: 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.

	RATE/ACRE					
	1 to 2 % Organic Matter			More Than 2% Organic Matter		
Soil Texture	DIREX® 4L Pints		Terbacil Pounds	DIREX® 4L Pints		Terbacil Pounds
Sandy loam	1.6	+	1.0	2.4	+	1.5
Loam, Silt loam, Silt	2.4	+	1.5	3.2	+	2.0
Clay loam, Clay	3.2	+	2.0	3.2	+	2.0

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4 to 6 inches 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.

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 soils with greater than 5% organic matter.

ESTABLISHED PLANTINGS: On light 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 than 4 weeks before spear emergence and no later than the early cutting period. If weeds are controlled into the cutting period by cultural practices, application may be delayed until immediately after the last cultivation. A second application may be made immediately following completion of harvest provided rainfall is expected. When two applications are used in one 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 inches of soil may substitute for lack of rain to activate the herbicide.

NEWLY PLANTED CROWNS

SAN JOAQUIN DELTA, CALIFORNIA: Make a single treatment 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. Soil must be settled by rainfall or irrigation prior to treatment. Do not treat crowns planted to a depth of less than 2 inches.

BANANA AND PLANTAIN

NEW PLANTINGS: To control annual weeds, apply 1.2 to 2.4 quarts per acre after planting but before weed or crop emergence. 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 surfactant. Avoid contact of banana and plantain 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 surfactant from the spray mixture. Repeat treatment as needed. Apply at 6 week intervals or longer for a maximum of 9.6 quarts DuPont™ DIREX® 4L per acre (broadcast basis) in 12 months.

Do not replant treated area to any crop within 2 years after last application as injury to subsequent crops may result. Exception: sugarcane or pineapple may be planted after 1 year.

BARLEY
(WINTER)

WESTERN OREGON AND WESTERN WASHINGTON: For drill planted barley, 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 inches in height, apply 0.4 to 0.8 quarts per acre; add a surfactant per 25 gallons of spray. If bermudagrass has emerged at time of treatment, temporary burn of exposed plant parts may occur. Plant sprigs (stolons) 2 inches deep in a well prepared seedbed. Do not treat areas where sprigs are planted less than 2 inches 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.

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.

AR, FL, GA, MS, MO, NH, NC, SC

BLUEBERRY: Apply 1.2 to 1.6 quarts per acre in the spring and repeat treatment after harvest in the fall. Add a surfactant to improve control of small, emerged weeds.

CALIFORNIA

BLACKBERRY, BOYSENBERRY, DEWBERRY, LOGANBERRY, RASPBERRY: For control of winter annual weeds, apply 1.6 quarts per acre in October or November. Repeat at the same rate in late spring to control summer annuals. A single application of 2.4 quarts per acre in January or February will control annual weeds in some areas, but the separate fall and spring schedule is preferred.

INDIANA, MICHIGAN, MINNESOTA, OHIO

BLUEBERRY: 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 the same rate in the spring.

RASPBERRY: Apply 2.4 quarts per acre in late spring.

MAINE, MASSACHUSETTS

BLUEBERRY: Apply 1.6 quarts per acre in late spring.

MARYLAND, NEW JERSEY

BLUEBERRY: For control of winter annual weeds, apply 1.6 quarts per acre from October to December, or make a single application of 2.0 quarts per acre in early to mid-spring.

WESTERN OREGON, WESTERN WASHINGTON

BLUEBERRY, CANEBERRY, GOOSEBERRY: For control of winter annual weeds, apply 1.6 quarts per acre in October or November. Repeat at the same rate in late spring to control summer annual weeds. A single application of 2.4 quarts per acre in January or February will control both winter and summer annual weeds in some areas, but the separate fall and spring schedule is preferred.

CITRUS

Time application as indicated for specific areas. However, 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.

DuPont™ DIREX® 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 tankmix partner when applying DIREX® 4L in combination with other products.

NOTE: For citrus trees 4 or less years of age, make a maximum of 2 applications per year. When DIREX® 4L is used in a sequential treatment program, allow a minimum of 60 days between applications.

For citrus trees 4 or more years of age, make a maximum of 2 applications per year. When DIREX® 4L 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 (non-tillage 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 DIREX® 4L.

The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within 1 year.

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

EAST COAST/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 diuron, the active ingredient in DIREX® 4L.

The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within 1 year.

RIDGE AREAS - EXCEPT HIGHLAND COUNTY (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 6.4 quarts per treated acre per year. This amount corresponds to 6.4 pounds of diuron, the active ingredient in DIREX® 4L.

The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within 1 year.

RIDGE AREAS - HIGHLAND COUNTY (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 treated acre per year. This amount corresponds to 4.8 pounds of diuron, the active ingredient in DIREX® 4L.

The maximum allowable use rate for diuron is 4.8 pounds per treated acre per year inclusive of all diuron formulations used within 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 non-bearing 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 DIREX® 4L.

The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within 1 year.

TEXAS: Apply 1.6 to 3.2 quarts per acre for annual weeds. Use 3.2 quarts per acre for control of seedling johnsongrass. Spring treatments give best results. 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 DIREX® 4L.

The maximum allowable use rate for diuron is 6.4 pounds per treated acre per year inclusive of all diuron formulations used within 1 year.

CORN (FIELD)

POSTEMERGENCE: Make a single application of 0.6 quarts per acre in combination with non-pressure nitrogen solution, such as, 28% or 32% nitrogen fertilizer. If nitrogen solution is not used, apply 0.8 quarts per acre with surfactant. Apply as a directed spray when corn is at least 20 inches high and weeds are no taller than 3 inches.

DO NOT APPLY OVER TOP OF CORN.

Do not replant to any crop within 1 year after last application as injury to subsequent crops may result. Exceptions: cotton, corn, and grain sorghum may be planted the spring following treatment.

EAST OF ROCKY MOUNTAINS

PREPLANT BURNDOWN APPLICATION: Apply DuPont™ DIREX® 4L from fall through spring at up to 30 days prior to planting corn (preplant burndown). Preplant burndown applications of DIREX® 4L at rates of 0.5 to 0.8 quarts product per acre as a broadcast application. The degree and duration of herbicidal efficacy from DIREX® 4L will vary with the amount of chemical applied, soil texture, rainfall and other conditions. Soils high in clay or organic matter will require higher dosages than soil low in clay or organic matter for equivalent herbicide performance. Moisture following application is required to activate the herbicide. Best results occur if rainfall (or sprinkler irrigation) occurs within 2 weeks after application. Plant corn at least 1.5 inches deep and make sure that the seed slot is closed.

DIREX® 4L may also be tank mixed with other herbicides labeled for use in preplant burndown application in corn. If weeds are emerged at the time of application apply DIREX® 4L or DIREX® 4L plus any tank mix partner with an adjuvant. If tank mixed with other herbicides please read and follow all product labels for use rates, adjuvant recommendations, and any application restrictions associated with any tank mix partner.

Do not replant treated areas to crops other than corn or cotton within 8 months following either a band or broadcast treatment of DIREX® 4L as injury to subsequent crops may result. Always consult the tank mix partner(s) label to determine any additional rotation or plant back restrictions.

Note: Do not apply more than a total of 1.6 quarts of DIREX® 4L per treated acre per year from all application timings.

Do not apply DIREX® 4L to frozen ground.

COTTON

USE PRECAUTIONS

Do not spray over the top of cotton plants.

Do not use DIREX® 4L in preplant or preemergence applications where soil-applied organophosphate insecticides are used due to potential for severe cotton injury and possible stand loss.

Seedling disease may weaken plants and increase the possibility of injury from the use of trifluralin products followed by DIREX® 4L. These treatments should be used only in conjunction with a standard fungicide seed treatment plus a good supplemental soil fungicide program such as captan-PCNB mixture.

When tank mixing DIREX® 4L with glyphosate, use at least 10 gallons per acre spray volume and add a compatibility agent.

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.

Do not allow livestock to graze treated cotton.

When using DIREX® 4L in a sequential treatment program, allow a minimum of 21 days between applications.

Do not make more that 3 applications of DIREX® 4L per year.

During a single crop season, do not exceed the following amount of DIREX® 4L per acre: 0.8 quarts on sandy loam, 1.5 quarts on clay loam, and 2.2 quarts on clay.

PREPLANT - U.S. (Except AZ and CA)

DIREX® 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 inches tall. If weeds are emerged prior to application, the addition of a non-ionic surfactant is recommended. Tillage following application should be avoided to prevent incorporation of the herbicide into the cotton seed germination zone which may result in crop injury. Dragging treated soil from beds will concentrate the herbicide in middles and reduce residual weed control on the beds.

Apply DIREX® 4L at 0.8 to 1.6 quarts per acre from 15 to 150 days prior to anticipated planting. Refer to the table below for use rates in preplant applications. Do not exceed suggested use rates for individual soil textures shown in the table below. If less than the maximum rate of application for a given soil is applied preplant, subsequent preplant or preemergence applications of DIREX® 4L may be made. However, the total combined application rate for DIREX® 4L applied preplant and preemergence may not exceed the maximum suggested use rate for either application method. Early preplant applications may require additional weed control before planting.

DUPONT™ DIREX® 4L ALONE:

Soil Texture	Rate (quarts per acre)
Sandy loam, Loam, Silt loam, Silt	0.8
Sandy clay loam, Clay loam, Silty clay loam, Sandy clay	1.0
Silty clay, Clay	1.6

Preemergence application of herbicides with a similar mode of action to that of diuron following preplant application of DIREX® 4L may result in cotton injury. When preplant applications of DIREX® 4L are followed by preemergence applications of herbicides with a similar mode of action, e.g., products containing fluometuron, the product containing fluometuron should be used at the minimum rate of application for the soil under consideration in order to reduce potential for crop injury. This is most critical where applications of DIREX® 4L are made less than 30 days preplant, on coarse textured soils, and on soils low in organic matter. The risk of injury from preplant applications of DIREX® 4L is reduced where substantial rainfall (> 0.5") occurs between application and planting. Read and follow any additional precautions on the DIREX® 4L label when using this product for preplant weed control in cotton.

PREPLANT - Arizona and California

Use DIREX® 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 DIREX® 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 DIREX® 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 performed prior to lay-by, or deep furrows are made early, weed control may be reduced in the furrow bottoms.

DIREX® 4L ALONE: Apply at 0.8 to 1.6 quarts per acre.

DIREX® 4L FOLLOWING TRIFLURALIN PRODUCTS:

Soil Texture	RATE (quarts per acre) trifluralin products	DIREX® 4L
Sandy loam, Loam, Silt loam, Silt	0.5	0.5 to 0.8
Sandy clay loam, Clay loam, Silty clay loam, Sandy clay, Clay	0.75	0.8 to 1.0

PREPLANT TANK MIXES: When emerged weeds taller than 2 inches or weeds not listed on the DIREX® 4L label are present, DIREX® 4L may be tank mixed with other products registered for preplant applications in cotton. 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 DIREX® 4L plus glyphosate tank mixes.

PREEMERGENCE - U.S. (Except AZ and CA)

Use DIREX® 4L alone or apply as a separate operation following preplant treatment with trifluralin products. Apply DIREX® 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 0.25 inch) 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 DIREX® 4L or if soil becomes crusted before crop emerges, a shallow rotary hoeing (no deeper than 0.25 inch) should be made before weeds become established.

If less than the maximum rate of application for a given soil is applied preplant, subsequent preplant or preemergence applications of DIREX® 4L may be made. However, the total amount of DIREX® 4L applied preplant and preemergence must not exceed the maximum suggested use rate for either preplant or preemergence applications.

DIREX® 4L ALONE: Make a single application as a broadcast or band spray, using the following broadcast rates. Use proportionately less for band treatment.

SOIL TEXTURE	RATE (quarts per acre)
Sandy loam, Loam, Silt loam, Silt	0.8
Sandy clay loam, Clay loam, Silty clay loam, Sandy clay	1.0
Silty clay, Clay	1.6

PREEMERGENCE APPLICATIONS OF DIREX® 4L FOLLOWING TRIFLURALIN PRODUCTS: Apply trifluralin products prior to planting as a broadcast or band treatment. Incorporate according to the directions on the trifluralin label. As a separate operation apply DIREX® 4L after planting, but before cotton emerges. Use the following broadcast rates. For band treatment, use proportionately less.

Soil Texture	RATE (quarts per acre) trifluralin products	DIREX® 4L
Sandy loam, Loam, Silt loam, Silt	0.5	0.8
Sandy clay loam, Clay loam, Silty clay loam, Sandy clay, Clay, Silty clay	0.75	1.0 to 1.6

POSTEMERGENCE

Apply DuPont™ DIREX® 4L only as a directed spray to cover weed foliage. Adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. Applications may also be made in hooded/shielded sprayers.

Early Season

Apply when cotton is at least 6 inches tall and when weeds are actively growing and do not exceed 2 inches in height. Apply as a band or broadcast treatment at the following rate. Two applications may be made if needed.

ANNUAL WEED PROBLEM

(UP TO 2 INCHES TALL)	RATE
Cotton 6 - 8 inches	0.4 quarts per acre
Cotton 8 - 12 inches	0.6 quarts per acre

For control of seedling perennial grass such as johnsongrass in directed sprays and partial control of nutsedge or when weed growth is under drought stress or over 2 inches in height, add 2.0 to 3.5 pounds active DSMA or 1.65 to 2.0 pounds active MSMA to above spray mixture. If DSMA or MSMA are used, do not apply after first bloom.

For enhanced weed control in hooded/shielded sprayer applications add MSMA or DSMA as suggested above; or add registered paraquat or glyphosate formulations according to label instructions. Consult product labels for specific instructions 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 per acre in Arizona and California) when cotton is at least 12 inches high (at least 20 inches for Pima varieties). 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, to 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 (4 inches or less in height) at lay-by time, make a single application in combination with surfactant, or use 0.4 to 0.6 quarts per acre plus surfactant and repeat later if needed.

REPLANTING

If initial seeding fails to produce a stand, cotton or corn may be replanted in soil treated preplant or preemergence with DIREX® 4L alone or following preplant 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 nor move soil into the original drill area. Plant seed at least 1 inch deep. Do not retreat field with a second preplant or preemergence application of herbicide during the same crop year as injury to crop may result.

CROP ROTATION

DIREX® 4L HERBICIDE

Type of Application	That May Follow Treated Cotton
Band pre or postemergence	Any crop 4 months after last application
Band pre 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 1 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 1 year after last application as injury to subsequent crops may result.

For subsequent crops in fields where trifluralin products are used, follow instructions on the trifluralin product label.

FILBERTS

(EXCEPT CA)

DIREX® 4L is for control of certain weeds in filbert orchards established for at least one year.

Do not apply more than 3.2 quarts per acre per year. When using DIREX® 4L in a sequential treatment program, allow a minimum of 150 days between applications. Apply a maximum of two applications per year.

Apply DIREX® 4L as a 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 late 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 DIREX® 4L (at proportionately lower rates) may be made near the trees or to the tree rows perpendicular to the slope.

GRAPE

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

Do not apply more than 4 quarts per acre as a single maximum use rate. Do not apply more than 8 quarts per acre per year. When using DIREX® 4L in a sequential treatment program, allow a minimum of 90 days between applications. Apply a maximum of two applications per year.

Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).

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

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 quarts per acre. Apply in the spring just prior to germination of annual weeds.

WEST OF THE ROCKY MOUNTAINS: For best results, apply during the winter months when weeds are less than 2 inches in height or diameter. Rainfall or overhead sprinkler irrigation sufficient to wet the soil to a depth of 2 inches is necessary to activate the herbicide. Abnormally heavy rainfall following application just before spring growth may move the herbicide into the root zone of grapes which could result in injury. For initial treatment, apply 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 1.5 inches in diameter as injury may result.

GRASS SEED CROPS

PERENNIAL EXCEPT WHERE SPECIFICALLY INDICATED

Except as noted, apply only to established plantings at least 1 year old.

NOTE: 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.

COLORADO, KANSAS, NEW MEXICO, 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.

EASTERN OREGON, EASTERN WASHINGTON: On perennial bluegrass and fescue apply 0.8 to 2.4 quarts per acre as broadcast in enough diluent to get even distribution. Apply in spring before rapid growth of the crop begins and when the windgrass is still small (1-4 leaf). DO NOT use on coarse (sand) textured soils.

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 two to four 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; apply 1.6 quarts per acre.

OREGON, 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 2.4 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 2-4 leaf stage should be removed prior to treatment.

Apply only to well established, vigorous stands. Do not apply to perennial ryegrass stands less than 1 year old. Use mechanical agitation and avoid overlap of spray patterns. Weed control efficacy may be reduced in fields where ash residues have accumulated from burning straw.

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. DuPont™ DIREX® 4L is most effective when applied before annual ryegrass volunteer plants have been more than 2 leaves. If larger plants are to be treated, addition of a labeled postemergence herbicide, will provide more effective control.

Adjust nozzle heights and spacing to allow the establishment of the desired row width (generally about 3 inches) and spacing (generally 9 to 12 inches). Use of low pressure nozzles, shielded nozzles, or drop nozzles to reduce spray movement into the intended crop row area is recommended.

FINE FESCUE GRASS SEED CROPS (INCLUDING CHEWINGS, CREEPING RED AND HARD FESCUE TYPES): For the suppression of rattail fescue, apply at 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.

DuPont™ DIREX® 4L is for use on healthy, vigorous stands of fine fescue. DIREX® 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 fall before grass weeds are beyond the one to two leaf stage and before broadleaf weeds are larger than 1 to 2 inches tall or across. Use the high end of the rate range for large weeds or where weed populations are high.

Approximately 1/2 to 1 inch of rainfall or sprinkler irrigation is needed to move DIREX® 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 DIREX® 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.

TALL FESCUE

MISSOURI, NORTHERN ARKANSAS, EASTERN KANSAS

On soils having at least 1% organic matter, apply DIREX® 4L at 1.6 quarts per acre in the fall for general broadleaf weed and grass control and the suppression of downy brome in established Tall Fescue grown for seed production. Treat only well established vigorous stands of tall fescue and begin applications at the onset of fall rains. For best results, rainfall of 1/2 to 1 inch is needed within two weeks after application.

For tall fescue planted in the fall do not treat until the following fall; for spring planted tall fescue, do not treat in the fall of the same year, extend the tall fescue establishment interval until the next fall.

Avoid overlapping of spray swaths and shut off spray booms while starting, turning, slowing or stopping as severe crop injury or death may result.

Do not use on sand, loamy sand, gravelly soils or exposed sub-soils.

TANK MIXTURES: DIREX® 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.

NEW PLANTINGS

OREGON, WASHINGTON: 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 inch band on soil surface at 15 pounds per acre of crop where row spacing is 20 inches (300 pounds per acre broadcast basis). Mount nozzles to apply directly over seed rows to prevent crop injury. Follow with DIREX® 4L as a single broadcast spray at the 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.

MACADAMIA NUT

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 surfactant. Retreat as needed but do not exceed 8.0 quarts per acre per year.

OATS

Do not replant treated areas to any crop within 1 year after last application as injury to subsequent crops may result.

SPRING OATS - DRILL PLANTED

IDAHO, EASTERN OREGON, EASTERN WASHINGTON: Use in areas where average annual rainfall exceeds 16 inches. 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 inches in height.

WINTER OATS - DRILL PLANTED

MIXED WITH PEAS OR VETCH - WESTERN OREGON, WESTERN WASHINGTON: Make a single application of 1.2 to 1.6 quarts per acre as soon as possible after planting but before crop emergence.

OLIVE

(CALIFORNIA)

Use only under trees established in the grove for at least 1 year. Apply 1.6 quarts per acre after the 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

For trees established in the orchard for at least 1 year. Apply 2 to 4 quarts per acre, preferably before weeds emerge. If weeds have emerged, add surfactant.

For papaya trees less than one year old, apply 2 to 4 quarts per acre of DuPont™ DIREX® 4L as a post-plant treatment between the rows. Use only in orchards that are lined with mulch paper in the crop row. Treat up to mulch paper only.

Apply preemergence or early postemergence in sufficient spray volume to provide uniform coverage of the weeds and/or soil and to allow proper dispersion and suspension of the product in the spray tank.

Do not apply more than 4 quarts per acre per year.

Do not allow spray to contact papaya foliage or other desirable vegetation.

Do not graze livestock in treated areas.

PEAS

(AUSTRIAN FIELD)

WESTERN OREGON: DIREX® 4L is for selective control of certain weeds in Austrian field peas.

Apply 1.2 to 1.6 quarts DIREX® 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, shepherdspurse, wild mustard, fiddleneck, lambsquarters, pigweed and annual bluegrass. Use lower rate on coarse-textured soils and higher rate on fine-textured soils.

Do not use DIREX® 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 one year of application. Crop injury may result if severe winter stress, disease or insect damage to the crop follows application.

PEACH

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. In California, apply 1.6 to 3.0 quarts per acre.

For peaches grown East of the Rocky Mountains, do not apply within 20 days of harvest.

In the Far West, do not apply within 8 months of harvest.

Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4 to 6 inches above water line), 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: 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 surfactant to improve control of small, emerged weeds.

DIREX® 4L PLUS TERBACIL 80 WP: 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.

	RATE / ACRE					
	1 to 2 % Organic Matter			More Than 2% Organic Matter		
Soil Texture	DIREX® 4L Quarts		Terbacil Pounds	DIREX® 4L Quarts		Terbacil Pounds
Sandy loam	0.8	+	1.0	1.2	+	1.5
Loam, Silt loam, Silt	1.2	+	1.5	1.6	+	2.0
Clay loam, Clay	1.6	+	2.0	1.6	+	2.0

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 from March through May. In the Far West, apply 3.2 quarts per acre to weeds less than 2 inches in height or diameter under dormant trees. Alternatively, apply to small weeds at 1.6 quarts per acre postharvest followed by 1.6 quarts per acre prior to budbreak.

PECAN

Make a single band or broadcast application as a directed spray using a minimum of 30 gallons of water per acre. Apply in the spring before weeds emerge or during the early seedling stage of growth.

DIREX® 4L plus Terbacil 80 WP

	RATE / ACRE			
		Tank mix **		
Soil Texture	DIREX® 4L Alone* or Quarts	DIREX® 4L Quarts	+	Terbacil Pounds
Sandy loam	1.6	1.2	+	1.5
Loam, Silt loam, Silt	2.4	1.4	+	1.75
Clay loam, Clay	3.2	1.6	+	2.0

* Use only under trees established in the grove for at least 3 years, and on soils with at least 0.5% organic matter.

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

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

PEPPERMINT, SPEARMINT

Apply DuPont™ DIREX® 4L at 0.6 to 0.8 quarts per acre on soils having 1.0% to 2.0% organic matter.

Apply DIREX® 4L at 0.8 to 1.6 quarts per acre on soils having 2.1 to 3.0% organic matter.

Apply DIREX® 4L at 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 sand, 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 DIREX® 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 time of application, the use of a surfactant at 0.25% volume/volume or crop oil concentrate at 1.0% volume/volume may be used to increase the performance of DIREX® 4L postemergence to weeds.

TANK MIXES AND SEQUENTIAL TREATMENTS: DIREX® 4L can be applied either alone or in a program involving tank mixes and/or sequential treatments with other herbicides and adjuvants providing DIREX® 4L is not applied to actively growing mint plant.

When using a tank mix with other herbicides, use the lower end of the DIREX® 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.

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 the plant crop or ratoon crop (for first ratoon crop as well as subsequent ratoon crops) but before differentiation. For plant crop only, additional broadcast or interspace applications may be made prior to differentiation at the 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 9.6 quarts per acre nor 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 the 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 three broadcast sprays (maximum 9.6 quarts per acre) prior to differentiation nor 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 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.

RED CLOVER

WESTERN OREGON: Make a single application of 1.6 quarts per acre on established red clover stands at least 9 months old. Apply when red clover is dormant between October 15 and December 15. Do not apply to seedling red clover. Do not replant treated area to any crop within 1 year after last application as injury to subsequent crops may result.

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

SORGHUM

(GRAIN)

SOUTHWESTERN STATES: Apply 0.2 to 0.4 quart per acre plus surfactant. Apply as a directed postemergence spray after sorghum is 15 inches tall to control weeds 2 to 4 inches in height. Use lower rate on broadleaf weeds up to 2 inches tall. Use the higher rate on grasses up to 2 inches and broadleaf weeds up to 4 inches tall. When the lower rate is used, a second application may be made if needed. Do 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 injury to subsequent crops may result.

DO NOT SPRAY OVER THE TOP OF SORGHUM.

SUGARCANE

To prevent possible crop injury on new cane varieties, test tolerance to DIREX® 4L prior to adoption as a field practice. Do not treat sugarcane growing on thinly covered sub-soils or rocky areas as crop injury may result. Temporary chlorosis and stunting of the crop may result from application over emerged cane. Application over emerged cane should be made only as directed below,

without the addition of a surfactant or crop oil concentrate. To minimize chlorosis and stunting, use directed postemergence sprays.

DuPont™ DIREX® 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.

PREEMERGENCE - FLORIDA: 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).

POSTEMERGENCE - FLORIDA: Make one or two applications of 1.6 quarts per acre as needed by directed spray inter-row. Alternatively, for panicum control, make up to three applications of 0.4 to 0.8 quarts per acre plus surfactant as a directed spray after cane has emerged but before panicum exceeds 2 inches in height. 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: 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. Sequential applications 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 surfactant to spray mixture and apply as a directed spray.

Do not apply more than three treatments nor more than 9.6 quarts per acre in Hawaii between planting (or ratooning) and harvest. Treated areas may be replanted to sugarcane or pineapple 1 year after last application.

PUERTO RICO: 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 surfactant and apply as a directed spray.

Do not apply more than three treatments nor more than 8 quarts per acre in Puerto Rico between planting (or ratooning) and harvest. Treated areas may be replanted to sugarcane or pineapple 1 year after last application.

LOUISIANA, TEXAS: Apply at 2.4 - 3.0 quarts per acre. DIREX® 4L may be applied as a broadcast spray after planting and following the harvesting of sugarcane. DIREX® 4L may also be applied broadcast in late winter. Application is best when made prior to weed emergence.

DIREX® 4L may be applied as a post-directed spray immediately after the last cultivation. Direct the spray application to the base (no more than 1/3 the plant height) of the sugarcane plants. When small weeds (3 inches or less) are present at application, add a surfactant at 0.25% V/V or crop oil concentrate at 1.0% V/V to the spray mix.

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.

TREE PLANTINGS

CO, MT, NE, ND, SD, WY: 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 feet wide in the tree row (2 feet on each side of row). For example, 1.6 ounces DIREX® 4L treats 135 feet of tree row (2 feet on each side of row) at the rate of 4.0 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 may result.

IDAHO, OREGON, WASHINGTON: DIREX® 4L is for control of weeds to aid in the establishment of hybrid poplar plantings. Apply at 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 are small. Some rainfall or water is necessary to move DIREX® 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.

PRE-PLANT: 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 planted trees before applying DIREX® 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 DIREX® 4L from contact with trees as injury may result. During the growing season (from bud swell to leaf drop) DIREX® 4L may be applied (alone or with tank mix) between tree rows in shielded and directed sprays.

DIREX® 4L can be tank mixed with a registered glyphosate herbicide pre-plant and as a directed spray to broaden the spectrum of weeds controlled and improve post-emergence activity. Use 0.8 to 2.4 quarts DIREX® 4L plus glyphosate herbicide (according to label instructions) 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.

WALNUT

(ENGLISH)

CALIFORNIA, OREGON, WASHINGTON

Use only under trees established in orchards 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 (non-tillage program) in late fall or early winter. Retreat annually with 1.6 to 2.2 quarts per acre. In California apply 1.6 to 3.0 quarts per acre. Alternatively, apply 1.6 quarts per acre in October or November and repeat at the same rate in March or April.

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

Do not make more than two applications per year. Do not apply more than 3.2 quarts per acre per year. In California do not apply more than 3.0 quarts per acre per year. When using DuPont™ DIREX® 4L in a sequential treatment program, allow a minimum of 150 days between applications.

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 DIREX® 4L than winter-hardy varieties. Crop injury may result from failure to observe the following: Do not use on sand or loamy sand soils, nor on gravelly or sandy loams with less than 1% organic matter. Do not use on thinly covered or exposed sub-soil area (clay knolls). Do not treat wheat planted less than 1 inch deep. Do not treat wheat where winter climatic conditions have caused "heaving" of plants. Do not treat wheat plants lacking in vigor due to poor emergence, insect damage, disease, high alkalinity or other causes. Do not apply after wheat has reached the "boot" stage of maturity. 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. Do not apply more than one application per use season.

IDAHO, OREGON, WASHINGTON

EAST OF CASCADE RANGE: 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 inches tall. Treatment after October 1 has generally given best results. Application should not be made after soil freezes in the fall. Wheat planted in late October should not be treated until the following spring.

SPRING TREATMENT

Apply as soon as wheat starts to grow. Treatment made prior to April 10 will usually give good results, provided weed growth is less then 4 inches tall. Application later than May 1 may give poor results.

Alternatively, make a single application of 0.4 to 0.8 quart DIREX® 4L plus 0.25 pound bromoxynil per acre as a tank mixture, in either the fall after wheat has emerged but before soil freezes or in the spring as soon as soil thaws. Apply before weeds are more than 2 inches tall or across.

Where average annual rainfall is 10 to 16 inches following fall planting, make a single application of 0.8 to 1.2 quarts per acre when sufficient moisture is available to germinate wheat seed. Apply before soil freezes and weeds are 2 inches tall. Application later than March 1 may give poor results.

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 inches prior to planting. Do not make a second application during the same crop year or injury to the crop may result.

OREGON, 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 inches tall. Alternatively, apply a tank mixture of DIREX® 4L plus bromoxynil as detailed above for "East of Cascade Range".

OTHER AREAS OF OREGON AND WASHINGTON: Make a single application in the spring as soon as wheat (fall-planted) starts to grow and before weeds are 2 inches tall. Application later than May 1 may give poor results.

KANSAS, OKLAHOMA, 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.

SUMMER FALLOW (CO, KS, NE, NM, OK, SD, TX, WY)

For weed suppression prior to planting winter wheat, apply DIREX® 4L at 1 pint per acre to wheat stubble or fallow in a tank mix with either DuPont™ FINESSE® at 0.2 to 0.33 ounce per acre; or DuPont™ ALLY® EXTRA at 0.2 to 0.4 ounce per acre; or DuPont™ RESOLVE® at 1 ounce per acre. Add a Crop Oil Concentrate (COC) at 1 to 2 % v/v or a non-ionic surfactant (NIS) at 0.25 to 0.5 % v/v. Glyphosate products plus AMS may also be added as needed. When

using glyphosate products that contain a built-in adjuvant system, add a NIS at 0.25% v/v. Allow at least 90 days after application before planting winter wheat. Plant winter wheat a minimum of 1.5 inches deep.

CENTRAL PLAINS, MIDWEST: Use 0.8 to 1.6 quarts per acre.

NORTHEAST: Use 0.8 to 1.2 quarts per acre.

NON-AGRICULTURAL USES

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. Non-crop weed control is not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter the treated area until the sprays have dried.

NON-CROP WEED CONTROL

DuPont™ DIREX® 4L is an effective herbicide for the control of listed weeds. The degree of control and duration of effect will vary with amount of chemical applied, soil texture, rainfall and other conditions. DIREX® 4L may be used as a preemergence treatment at any time of the year except when ground is frozen, provided adequate moisture is supplied by rainfall or artificial means to activate the herbicide. Best results are obtained if applied 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. Apply as a drenching spray to actively growing weeds during warm weather when daily temperature will exceed 70° F.

Use a fixed-boom power sprayer properly calibrated to insure a constant rate of application. Mix proper amount of DIREX® 4L into volume of water necessary to obtain uniform coverage. If a surfactant is used, dilute with ten parts of water and add as last ingredient to nearly full tank. DIREX® 4L must be kept in suspension at all times. Agitate by mechanical or hydraulic means in the spray tank. If bypass or return line is used, it should terminate at bottom of tank to minimize foaming. Use 50 mesh screen or larger.

NOTE: DIREX® 4L may be applied by either aerial or ground application equipment for weed control in rights-of-way sites.

Do not exceed an application rate of 2 gallons per acre except in areas of high rainfall (more that 40 inches/year) or dense vegetation (more than 90% weed ground cover). In areas with high rainfall or dense vegetation, a maximum application of 3 gallons per acre is allowed. Do not make more than two applications per year. If DIREX® 4L is used in a sequential application program, allow a minimum of 90 days between applications.

WEED CONTROL

DIREX® 4L is for general weed control as follows: uncultivated non-agricultural areas (such as, airports, highway, railroad and utility rights-of-way, sewage disposal areas); uncultivated agricultural areas (non-crop producing, which includes: farmyards, fuel storage areas, fence rows, barrier strips); industrial sites (outdoor, such as, lumberyards, pipeline and tank farms).

DIREX® 4L may be applied in non-crop sites that contain areas of temporary surface water caused by the collection of water in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps and bogs after water has receded as well as seasonally dry flood deltas. Do not make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

Apply 4 to 12 quarts per acre to control most annual weeds including:

BROADLEAVES
4 - 12 QUARTS/ACRE

Ageratum
Chickweed
Cocklebur
Corn Speedwell
Corn Spurry
Dayflower
Dogfennel
Fiddleneck (Amsinckia)
Flora's Paintbrush
Gromwell
Groundcherry, Annual
Hawksbeard
Horsenettle
Knawel
Lambsquarter
Marigold
Mexican Clover
Morningglory, Annual
Pennycress
Pigweed
Pineappleweed
Pokeweed
Prickly Lettuce
Prickly Sida (Teaweed)
Purslane
Rabbit Tobacco
Ragweed
Sesbania
Shepherdspurse
Sicklepod
Smartweed, Annual
Sowthistle, Annual
Spanish Needles
Tansymustard
Velvetleaf (Buttonweed)
Wild Buckwheat
Wild Lettuce
Wild Mustard
Wild Radish

GRASSES
4 - 6.4 QUARTS/ACRE

Barnyardgrass (Watergrass)
Bluegrass, Annual
Crabgrass
Foxtail
Johnsongrass (Seedling)
Kyllinger (Kyllinga)
Lovegrass, Annual
Orchardgrass
Peppergrass
Quackgrass
Rattail Fescue
Red Sprangletop
Ricegrass
Ryegrass, Annual
Sandbur
Velvetgrass
Vernalgrass,
Sweet, Annual

6.4 - 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 the ditch is not in use. To avoid crop injury, it is essential to minimize movement of DuPont™ DIREX® 4L in irrigation water. The herbicide must 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. Trees or other desirable plants whose roots extend into the ditch area may be injured.

ADDITIONAL USE INFORMATION

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See **Wind, Temperature and Humidity**, and **Surface Temperature Inversions** sections of this label.

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 A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **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.

CONTROLLING DROPLET SIZE - AIRCRAFT

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

BOOM LENGTH AND HEIGHT

- **Boom Length (aircraft)** - The boom length should not exceed 3/4 of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.
- **Boom Height (aircraft)** - Application more than 10 ft above the canopy increases the potential for spray drift.
- **Boom Height (ground)** Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

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 hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are

characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

SENSITIVE AREAS

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

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store product in original container only. Store in a cool, dry place.

Pesticide Disposal:Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 1/4 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Rigid Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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 for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Rigid Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

All Refillable Containers: Refillable container. Refilling Container: Refill this container with DuPont™ DIREX® 4L herbicide containing Diuron only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use container, contact DuPont at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

The DuPont Oval Logo, DuPont™, DIREX®, ALLY®, FINESSE® and RESOLVE® are trademarks or registered trademarks of E. I. duPont de Nemours and Company

D - 1455 021011

23 of 23

LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

To the extent consistent with applicable law that allows such requirement, DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT (1-888-638-7668)
Internet address: http://cropprotection.dupont.com/

© 2006-2011 E. I. du Pont de Nemours and Company, 1007 Market Street, Wilmington, Delaware 19898.
All rights reserved.