

$DuPont^{^{\mathrm{TM}}}\,Velpar^{^{\mathrm{B}}}L$

herbicide



herbicide

Water Dispersible Liquid

Contains 2 Lbs Active Ingredient Per Gallon

By Weight	
nino) 1H 3H)-dionel	25%
111,511) dione	
	75%
	100%
EPA Est. No	
Company	
	nino) 1H,3H)-dione] EPA Est. No.

DANGER PELIGRO

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 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 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for medical emergencies involving this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER! CAUSES EYE DAMAGE.

Corrosive, causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

Protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands 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 and as soon as possible wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

The active ingredient, hexazinone, in this product is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

PHYSICAL AND CHEMICAL HAZARDS

FLAMMABLE. Keep away from heat, sparks, and open flames. Keep container closed.

DIRECTIONS FOR USE

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

DuPontTM VELPAR® L must be used only in accordance with instructions on this label, or in supplemental DuPont publications.

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.

The correct use rates by crop and geographical area, specified on this label, and proper mixing/loading site considerations and application procedures must be followed to minimize potential for hexazinone movement into ground water. Users are encouraged to consult with their state Department of Agriculture, Extension Service, or other pesticide lead agency for information regarding soil permeability, aquifer vulnerability, and best management practices for their area.

PRODUCT INFORMATION

VELPAR® L herbicide is a water-dispersible liquid that is mixed in water and applied as a spray for weed control in certain crops, Christmas trees, forestry site preparation and release areas, and industrial areas. It may also be applied undiluted as a basal soil treatment for brush control in reforestation areas, rangeland, pastures and noncrop areas, or by stem injection for brush control.

VELPAR® L is an effective general herbicide providing both contact and residual control of many annual, biennial and perennial weeds and woody plants.

VELPAR® L is noncorrosive to equipment.

Care must be exercised when applying VELPAR® L near desirable trees or shrubs as they can absorb VELPAR® L through roots extending into treated areas.

This product may be applied on agricultural and non-agricultural sites that contain areas of temporary surface water caused by collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittent drainage, 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.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

VELPAR® L is absorbed through the roots and foliage. Moisture is required to activate VELPAR® L in the soil. Best results are obtained when the soil is moist at the time of application and 1/4–1/2 inches of rainfall occurs within 2 weeks after application.

For best results, apply VELPAR® L preemergence or postemergence when weeds are less than 2 inches in height or diameter. Foliar activity is most effective under conditions of high temperature (above 80 °F), high humidity, and good soil moisture. Foliar activity may be reduced when vegetation is dormant, semi-dormant, or under stress.

On herbaceous plants, symptoms usually appear within 2 weeks after application under warm, humid conditions, while 4–6 weeks may be required when weather is cool or dry, or when plants are under stress. If rainfall after application is inadequate to activate VELPAR® L in the soil, plants may recover from contact effects and continue to grow.

On woody plants, symptoms usually appear within 3–6 weeks after sufficient rainfall has carried the herbicide into the root zone during periods of active growth. Defoliation and refoliation may occur, but susceptible plants are killed.

The degree and duration of control may depend on the following:

- Use rate
- Weed spectrum and size at application
- Environmental conditions at and following treatment Where a rate range is shown, use the higher levels of the dosage range on hard-to-control species, fine-textured soils, or soils containing greater than 5% organic matter or carbon. Use the lower levels of the dosage range on coarse-textured soils and/or on soils low in organic matter. Refer to specific uses for rate ranges.

APPLICATION INFORMATION

VELPAR® L may be applied by ground equipment and, where permitted, aerial equipment. Use rates, minimum spray gallonage, and other application information are described for the various uses.

Dispose of the equipment washwater by applying it to a usesite listed on this label or in accordance with directions given in the "Storage and Disposal" section of this label.

Before spraying, calibrate equipment to determine the quantity of water necessary to uniformly and thoroughly cover the vegetation and soil in a measured area to be treated.

TANK MIXTURES

VELPAR® L herbicide may be tank mixed with other herbicides and /or adjuvants registered for the uses (crops) specified in the label.

Refer to the label of the tank mix partner(s) for any additional use instructions or restrictions. The most restrictive label provisions apply. If other label instructions conflict with this label do not tank mix the herbicide and/or adjuvant with VELPAR® L herbicide.

NOTE: When the air temperature is around 32°F, tank mixtures of paraquat dichloride plus VELPAR® L may form a hard sludge in the spray tank. This effect is most likely to occur when the tank mixture comes into contact with aluminum.

INVASIVE SPECIES MANAGEMENT

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants. Effective EDRR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is advised, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

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 instructions 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.

AGRICULTURAL USES

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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.

Protective eyewear.

ALFALFA

 $\label{eq:potential} DuPont^{TM}\,VELPAR@\,\,L\,\,is\,\,labeled\,\,for\,\,control\,\,of\,\,certain\,\,weeds\\ in\,\,established\,\,alfalfa\,\,grown\,\,for\,\,hay\,\,or\,\,seed\,\,production.$

- Do not apply within 30 days of harvest (cutting for hay), or feeding of forage or grazing.
- Do not exceed 6 pints per acre per application.
- Do not exceed 6 pints (1.5 pounds active ingredient hexazinone) per acre per year.

APPLICATION INFORMATION

NON-DORMANT AND SEMI-DORMANT VARIETIES

In the following states, make a single application of VELPAR® L during the winter months when alfalfa plants are in the least active stage of growth.

C	C		
Arizona	Montana	Oklahoma	Washington
California	Nebraska	Oregon	Wyoming
Colorado	Nevada	South Dakota	
Idaho	New Mexico	Texas	
Kansas	North Dakota	Utah	

In the following states, make a single application of VELPAR® L either in the spring before new growth exceeds 2 inches in height or to alfalfa stubble after cutting, following hay removal and before regrowth exceeds 2 inches in height.

Arkansas	Maine	New Jersey	Vermont
Connecticut	Maryland	New York	Virginia
Delaware	Massachusetts	North Carolina	West Virginia
Illinois	Michigan	Ohio	Wisconsin
Indiana	Minnesota	Pennsylvania	
Iowa	Missouri	Rhode Island	
Kentucky	New Hampshire	Tennessee	

NOTE: Severe alfalfa injury may result following application, if after cutting the regrowth is more than 2 inches high, or there is

significant stubble left after cutting or grazing, or the air temperature is above 90 °F.

DORMANT VARIETIES

Make a single application of DuPontTM VELPAR® L after alfalfa becomes dormant and before new growth exceeds 2 inches in height in the spring. Where weeds have emerged, use a surfactant.

USE RATES

Use higher rates on hard-to-control species, (see **Weeds Controlled** section below) fine textured soils, soils containing greater than 5% organic matter, or under adverse environmental conditions such as temperature extremes or when weeds are stressed due to low rainfall.

For dormant alfalfa, use a surfactant approved for crops at the rate of 0.25% v/v (1 quart per 100 gallons of spray solution).

Select the appropriate rate for soil texture and organic matter content as follows:

	VELPAR® L (Pints/Acre)		
Soil Texture	Percent	Organic Matte	er in Soil
Description	<1%	1-5%	>5%
Coarse			
Loamy sand, sandy loam	2–3	2–3	4–6
Medium			
Loam, silt loam, silt, clay loam, sandy clay loam	2–3	3–6	4–6
Fine			
Silty clay loam, sandy clay, silty clay, clay	3–6	3–6	4–6

NOTE:

- In the states of MT, ND, SD, and WY, do not exceed a use rate of 4 pints per acre on medium and fine textured soils.
- In the state of Montana (MT), do not apply to soils with less than 1.5% organic matter.
- In the state of Wyoming (WY):
 Do not apply to soils with less than 0.5% organic matter.
 Apply to irrigated alfalfa only.

WEEDS CONTROLLED

VELPAR® L, when applied preemergence or early postemergence at the following rates, will control these weed species in alfalfa:

1 - 2 PINTS/ACRE

Tansymustard

Descurainia pinnata

2 - 4 PINTS/ACRE

Bluegrass, annual Brome, downy (cheatgrass) Buckwheat, wild Catchfly, English Chamomile, mayweed (dogfennel) Chickweed, common Fiddleneck, tarweed Filaree Flixweed Groundsel, common Henbit* Lettuce, Miner's Mustard, blue Mustard, Jim Hill (tumble) Mustard, wild Orchardgrass (seedling)

Senecio vulgaris Lamium amplexicaule Montia perfoliata Chorispora tenella Sisymbrium altissimum Brassica kaber Dactylis glomerata Thlaspi arvense Amaranthus retroflexus Raphanus raphanistrum Sisymbrium irio Barbarea vulgaris Tragopogon spp. Capsella bursa-pastoris Veronica peregrina Spergula arvensis

Poa annua

Bromus tectorum

Silene gallica

Anthemis cotula

Stellaria media

Erodium sp.

Polygonum convolvulus

Amsinckia lycopsoides

Descurainia Sophia

Mustard, blue
Mustard, Jim Hill (tumble)
Mustard, wild
Orchardgrass (seedling)
Pennycress, field
Pigweed, redroot
Radish, wild
Rocket, London
Rocket, common yellow
Salsify
Shepherdspurse

4-6 PINTS/ACRE

Speedwell, purslane

Spurry, corn

Alfalfa* (seedling) Medicago sativa Barley, foxtail (seedling) Hordeum jubatum Bluegrass, perennial* (spring only) Poa spp Melandrium album Cockle, white* Dandelion, common* Taraxacum officinale Dandelion, false* (spotted catsear) Hypochaeris radicata Foxtail* Setaria spp Kochia Kochia scoparia Lambsquarters, common Chenipodium album Lettuce, prickly* Lactuca serriola Mallow, common Malva neglecta Ouackgrass* Elytrigia repens Ryegrass, Italian (annual) Lolium multiflorum Speedwell, ivyleaf Veronica hederaefolia Tea, Mexican* Chenopodium ambrosioides Thistle, Canada (seedling) Cirsium arvense Thistle, Russian Salsola iberica

* Suppression - a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

VELPAR® L, when applied to alfalfa in late spring or after cutting at the following rates, will control these species listed below:

2 - 6 PINTS/ACRE

Crabgrass Digitaria spp
Fleabane Conyza spp
Foxtail Setaria spp.
Jimsonweed Datura stramonium
Lambsquarters, common Chenopodium album
Pigweed, redroot Amaranthus retroflexus

SEED ALFALFA (CA, ID, MT, NV, OR, UT, WA)

VELPAR® L may be used for general broadleaf weed and grass control in established alfalfa grown for seed.

DORMANT VARIETIES

Make a single application of DuPontTM VELPAR® L after alfalfa becomes dormant and before new growth exceeds 2 inches in height in the spring. Where weeds have emerged, use a surfactant.

NON-DORMANT AND SEMI-DORMANT VARIETIES

Make a single application of VELPAR® L during the winter months when alfalfa plants are in the least active stage of growth.

WEEDS CONTROLLED

Refer to the Alfalfa - Weeds Controlled section for specific use rates and weeds controlled.

USE PRECAUTIONS AND RESTRICTIONS SEED ALFALFA

- Do not apply within 30 days of harvest (cutting for hay), or feeding of forage or grazing.
- Do not use VELPAR® L on fields with sandy loam or loamy sand soils having less than 1% organic matter.
- Do not exceed 2 pints per acre on fields with sandy loam or loamy sand soils having 1–2% organic matter.
- Do not exceed 2 pints per acre on seed alfalfa that has been established for only one growing season.

SEED ALFALFA WALLA WALLA COUNTY, WASHINGTON

VELPAR® L Herbicide may be used for the suppression of prickly lettuce and quackgrass and control of Canada thistle (seedling), kochia, and certain other weeds in established alfalfa grown for seed.

Use Rates: 4 to 6 pints per acre

Kochia Kochia scoparia
Lettuce, prickly* Lactuca serriola
Quackgrass* Elytrigia repens
Thistle, Canada (seedling) Cirsium arvense

* Suppression

USE PRECAUTIONS AND RESTRICTIONS SEED ALFALFA - WALLA WALLA COUNTY WASHINGTON

Do not apply within 30 days of harvest (cutting for hay), or feeding of forage or grazing.

Do not exceed 6 pints VELPAR® L herbicide per acre per application.

Do not exceed 6 pints (1.5 pounds active ingredient hexazinone) per acre per year.

SPRAY EQUIPMENT

Apply VELPAR® L using a fixed boom power sprayer or aerial equipment.

For ground applications apply in a minimum of 20 gallons of spray solution per acre and by air in a minimum of 5 gallons per acre. Use at least 5 pints of water per each 1 pint of VELPAR® L.

CHEMIGATION ALFALFA

Apply this product only through center pivot or linear-move sprinkler irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

Severe alfalfa injury may result following application after cutting if either the regrowth is more than 2" high or significant stubble is left after alfalfa cutting.

If you have questions about calibration, you may contact State Extension Service specialists, equipment manufacturers or other experts.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments when needed.

DORMANT APPLICATIONS

Select the appropriate rate, see **Use Rate** section, for soil texture and organic matter content using 0.25" to 0.75" of sprinkler irrigation as a continuous injection during the application. Best results are obtained when soil is moist at time of application, and when weeds have not germinated or are less than 2" tall or across.

APPLICATION AFTER CUTTING

Apply VELPAR® L at 1 pint per acre to stubble after cutting, following hay removal, and before regrowth exceeds 2" in height. Apply VELPAR® L using 0.25" to 0.75" of sprinkler irrigation as a continuous injection during the application. Best results are obtained when soil is moist at time of application and when weeds have not germinated or are less than 2" tall or across.

NOTE: Making an application when daily temperatures are forecast to be in the mid-to-high 90 degree temperature range within 3 to 5 days after treatment may increase the potential for crop injury.

SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

MIXING INSTRUCTIONS

- 1. Fill the supply tank 1/4 to 1/3 full of water.
- 2. While agitating, add the required amount of DuPontTM VELPAR® L and continue agitation.
- 3. Once the VELPAR® L is fully dispersed, maintain agitation and continue filling tank with water.
- 4. As the tank is filling, add tank mix partners (if desired). Follow use precautions and directions on the tank mix partner label.
- 5. After thorough mixing, the agitation system can be stopped to prevent excessive foaming in the tank. Once thoroughly mixed the solution in the supply tank does not require additional agitation unless specified on the companion products label. If foaming occurs in the injection supply tank, a defoaming agent (defoamer) may be added.
- 6. Apply VELPAR® L spray mixture within 48 hours of mixing to avoid product degradation.

USE PRECAUTIONS AND RESTRICTIONS CHEMIGATION

- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.
- Distributing treated water in an uneven manner can result in crop injury, lack of effectiveness, or over-tolerance pesticide residues in the crop. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water, apply the mixture for the proper length of time and ensure sprinkler produces a uniform water pattern.
- Do not permit run-off during chemigation.

POSTING OF AREAS TO BE TREATED

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements.

- Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas.
- The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English.
- Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

- All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATION WATER".
- Posting required for chemigation does not replace other posting and reentry requirements for farm worker safety.

REPLANTING (FOLLOWING ALFALFA)

- Do not replant treated areas to any crop except corn, root crops or sugarcane within two years after treatment, as crop injury may result.
- Corn may be planted 12 months after the last treatment in areas of moderate to high rainfall (greater than 20 inches), provided the use rate did not exceed 3 pints per acre.
- Root crops such as potatoes, sugarbeets, radish and carrots may be planted 12 months after last treatment, provided the use rate does not exceed 2 pints per acre. Sites with use rates higher than 2 pints per acre must not be replanted to any root crop within 2 years after application of VELPAR® L, or unacceptable crop injury may result.
 - In areas where irrigation is needed to produce the crop, the crop rotation intervals listed may need to be extended if the normal irrigation amount is reduced for any reason.
- Sugarcane may be planted any time following treatment.
- In California, do not replant seed alfalfa areas to any crop within two years after treatment, as crop injury may result.

CROP ROTATION

Field Bioassay

In arid climates (10 inches of rainfall or less per year) or areas where drought conditions have prevailed for one or more years, a field bioassay must be completed prior to planting any desired crop. The results of this bioassay may require the rotation intervals listed above to be extended.

A successful bioassay means growing to maturity a test strip of the crop(s) intended for production. The test crop(s) strip must cross the entire field including knolls, low areas, and areas where any berms were located.

In areas where irrigation is needed to produce the crop, the crop rotation intervals listed may need to be extended if the normal irrigation amount is reduced for any reason.

ALFALFA - IMPREGNATION ON DRY BULK FERTILIZER (EXCEPT CALIFORNIA AND ARIZONA)

Dry bulk fertilizer may be impregnated or coated with VELPAR® L for application to established alfalfa. All instructions and precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation, as dusty fertilizer will result in poor distribution during application. The dry

fertilizer must be properly impregnated and uniformly applied to the alfalfa to avoid crop injury and/or poor weed control.

To impregnate the fertilizer, use a system consisting of a conveyor or closed drum used to blend dry bulk fertilizer. Any commonly used fertilizer can be impregnated with DuPontTM VELPAR® L, except potassium nitrate or sodium nitrate. Do not use VELPAR® L on limestone.

Use a minimum of 250 lb dry bulk fertilizer per acre and up to a maximum of 450 lb per acre. To impregnate or coat the dry bulk fertilizer with VELPAR® L, direct the nozzles to deliver a fine spray of this suspension toward the fertilizer for thorough coverage while avoiding spray contact with mixing equipment. Uniform impregnation of VELPAR® L to dry bulk fertilizer will vary, and if the absorptivity is not adequate, the use of an absorptive powder may be required to produce a dry, free-flowing mixture. "Microcel E" is the absorbent powder of choice. When another herbicide is used with VELPAR® L, mix and impregnate the fertilizer immediately.

Apply impregnated fertilizer as soon as possible after impregnation for optimum performance.

Select the rate of VELPAR® L to apply per acre from the appropriate section of this label. Then refer to the rate chart below to determine the amount of VELPAR® L that is to be impregnated on a ton of dry bulk fertilizer, based on the amount of fertilizer to be distributed in one acre.

Rate Chart for Impregnating Fertilizer with VELPAR® L

Fertilizer	VELPAR® L Rate Per Acre			
Rate/Acre	2 Pints	3 Pints	4 Pints	6 Pints
250 pounds	16 pts/ton	24 pts/ton	32 pts/ton	48 pts/ton
300 pounds	13.4 pts/ton	20 pts/ton	26.8 pts/ton	40.2 pts/ton
350 pounds	11.4 pts/ton	17.2 pts/ton	22.8 pts/ton	34.2 pts/ton
400 pounds	10 pts/ton	15 pts/ton	20 pts/ton	30 pts/ton
450 pounds	8.8 pts/ton	13.2 pts/ton	17.6 pts/ton	26.4 pts/ton

For rates other than those listed, use the following formula to calculate the amounts of VELPAR® L to be impregnated per ton of dry fertilizer.

Pints VELPAR® L X 1 Ton = Pints VELPAR® L per
Per Acre Fertilizer Ton of Fertilizer

APPLICATION

Uniform application of VELPAR® L-impregnated dry fertilizer is essential for satisfactory weed control. Accurate calibration of the application equipment is essential for uniform distribution to the surface. The customary method of application is to apply 1/2 the labeled rate and overlap 50%. This results in the best distribution pattern.

USE PRECAUTIONS AND RESTRICTIONS - ALFALFA

 Best results are obtained when 1/2-1 inch of rainfall or sprinkler irrigation occurs within two weeks after application, when soil is moist at time of application, and when weeds have not germinated or are less than 2 inches in height or diameter. Heavy rainfall or excessive irrigation after application may result in crop injury or poor performance of the herbicide.

- On soils high in organic matter (greater than 5%), the effectiveness of VELPAR® L can be significantly reduced and weed control may be unsatisfactory.
- Avoid overlapping of spray swaths and shut off spray booms while starting, turning, slowing or stopping or crop injury may result.
- Crop injury, including mortality, may result in fields with restricted root growth due to nonuniform soil profiles such as gravel bases and clay lenses.
- Crop injury may result if hot weather, mid-to-high 90 degree range or higher, occurs within a few days after application.
- Do not apply to snow-covered or frozen ground.
- Crop injury to alfalfa can be influenced by several factors including alfalfa variety, soil conditions, uniformity of application and environmental conditions, etc., if no prior use history for the site or variety, treat only a small area when first using VELPAR® L.
- If abnormally dry conditions exist following application, restrict the first irrigation to no more than 1/2 acre inch of water.
- Temporary yellowing of alfalfa may occur following VELPAR® L applications.
- Treat only stands of alfalfa established for one year or for one growing season (except in California), provided:
 - -The alfalfa stand has a well developed tap root structure that is at least 10 inches in length (0.25 inch diameter below the crown) throughout the field and the crop is healthy, vigorous, and not under stress from weather conditions, low fertility, insects or disease damage.
 - -In areas with shorter growing seasons, such as, higher elevations, adequate alfalfa tap root growth may not occur and especially when alfalfa is grown together with a cover or nurse crop. If an adequate tap root is not present, delay application of VELPAR® L until the alfalfa has gone through a minimum of two growing seasons.
- In California, fall planted alfalfa may be treated in the following winter months with VELPAR® L at 1 to 2 pints per acre (use higher rate for fine textured soils) provided:
 - alfalfa root growth exceeds 6 inches in length
 - vegetative top growth of alfalfa has lateral development of secondary growth
 - alfalfa is healthy and vigorous, not growing under stress from insect, disease, winter injury or other types of stress.

Injury may result to alfalfa plants that fail to meet these growth criterion listed above.

- Do not use VELPAR® L on seedling alfalfa, alfalfa-grass mixtures, or other mixed stands as injury may result to the seedling alfalfa or companion crop.
- Do not add a surfactant to VELPAR® L when treating non-dormant alfalfa.
- Do not use VELPAR® L on gravelly or rocky soils, exposed subsoils, hardpan, sand, poorly drained soil, or alkali soils.

BLUEBERRY HIGH BUSH BLUEBERRIES

DuPontTM VELPAR® L is labeled for control of certain herbaceous and woody weeds in established high bush blueberry fields.

APPLICATION INFORMATION

VELPAR® L may be applied to high bush blueberries that have been established for 3 or more years. Apply VELPAR® L in the spring before the lower leaves of the blueberry plant have fully expanded. Avoid contact of the leaves with the spray solution.

Using calibrated ground spray equipment, make the application in sufficient water to provide thorough and uniform coverage to the treated area (usually 20 gallons per acre). Shut off spray booms when starting, turning, slowing or stopping, or injury to the crop may result.

USE PRECAUTIONS AND RESTRICTIONS HIGH BUSH BLUEBERRIES

- Do not apply through any type of irrigation system.
- Do not apply within 90 days of harvest.
- Do not apply to flooded field with standing water.
- Application to blueberry foliage will result in crop injury.
- Since the effect of VELPAR® L on blueberries varies with soil type, plant vigor, uniformity of applications and amount of rainfall, it is suggested that growers limit their first use to small areas.

USE RATES (Pints/Acre) HIGH BUSH BLUEBERRIES

Soil texture	less than or equal to 3% organic matter	greater than 3% organic matter	
Coarse loamy sand, sandy loam (50-85% sand)	4	5	
Medium loam, silt loam, silt, clay loam, sandy clay loam		8	
Fine silty clay loam, clay loam, sandy clay, silty clay, clay	4 - 6*	8	

^{*}Use the higher rate as the soil organic matter approaches 3%.

LOW BUSH BLUEBERRIES

VELPAR® L may be used for the control of certain weeds in low bush blueberries.

APPLICATION INFORMATION

VELPAR® L may only be applied to pruned blueberry fields in the spring before leaf emergence. Using calibrated ground spray equipment, make the application in sufficient water to provide thorough and uniform coverage to the treated area (usually 20 gallons per acre). Shut off spray booms when starting, turning, slowing or stopping, or injury to the crop may result.

USE PRECAUTIONS AND RESTRICTIONS LOW BUSH BLUEBERRIES

- Do not apply through any type of irrigation system.
- Do not apply to flooded field with standing water.
- Do not apply within 450 days of harvest.
- Do not exceed 8 pints per acre if field has been treated with hexazinone within the past 8 years.
- Application to blueberry foliage will result in crop injury.
- Since the effect of VELPAR® L on blueberries varies with soil type, plant vigor, uniformity of applications and amount of rainfall, it is suggested that growers limit their first use to small areas. If excessive leaf drop is observed after treatment, reduce rate in future applications.
- Maintain a 50 foot buffer from any well head or water reservoir

USE RATES (Pints/Acre)

LOW BUSH BLUEBERRIES

	less than or equal to 3%	greater than 3% organic	
Soil texture	organic matter	matter	
Coarse loamy sand, sandy loam (50-85% sand)	4	5	
Medium loam, silt loam, silt, clay loam, sandy clay loam		6	
Fine silty clay loam, clay loam, sandy clay, silty clay, clay	4 - 8*	8 - 12**	

^{*}Use the higher rate as the soil organic matter approaches 3%.
**Use the higher rate for harder to control species.

IMPREGNATION ON DRY BULK FERTILIZER

Dry bulk fertilizer may be impregnated or coated with VELPAR® L for application to established high bush or low bush blueberries. All instructions and precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation, as dusty fertilizer will result in poor distribution during application. The dry fertilizer must be properly impregnated and uniformly applied to the alfalfa to avoid crop injury and/or poor weed control.

To impregnate the fertilizer, use a system consisting of a conveyor or closed drum used to blend dry bulk fertilizer. Any commonly used fertilizer can be impregnated with VELPAR® L, except potassium nitrate or sodium nitrate. Do not use VELPAR® L on limestone.

Use a minimum of 250 lb dry bulk fertilizer per acre and up to a maximum of 450 lb per acre. To impregnate or coat the dry bulk fertilizer with VELPAR® L, direct the nozzles to deliver a fine spray of this suspension toward the fertilizer for thorough coverage while avoiding spray contact with mixing equipment. Uniform impregnation of VELPAR® L to dry

bulk fertilizer will vary, and if the absorptivity is not adequate, the use of an absorptive powder may be required to produce a dry, free-flowing mixture. "Microcel E" is the absorbent powder of choice. When another herbicide is used with DuPontTM VELPAR® L, mix and impregnate the fertilizer immediately.

Apply impregnated fertilizer as soon as possible after impregnation for optimum performance.

Select the rate of VELPAR® L to apply per acre from the appropriate section of this label. Then refer to the rate chart below to determine the amount of VELPAR® L that is to be impregnated on a ton of dry bulk fertilizer, based on the amount of fertilizer to be distributed in one acre.

Rate Chart for Impregnating Fertilizer with VELPAR® L VELPAR® L. Rate Per Acre Fortilizor

refulizei	VELFAR® L Rate Fel Acie			
Rate/Acre	2 Pints	3 Pints	4 Pints	6 Pints
250 pounds	16 pts/ton	24 pts/ton	32 pts/ton	48 pts/ton
300 pounds	13.4 pts/ton	20 pts/ton	26.8 pts/ton	40.2 pts/ton
350 pounds	11.4 pts/ton	17.2 pts/ton	22.8 pts/ton	34.2 pts/ton
400 pounds	10 pts/ton	15 pts/ton	20 pts/ton	30 pts/ton
450 pounds	8.8 pts/ton	13.2 pts/ton	17.6 pts/ton	26.4 pts/ton

For rates other than those listed, use the following formula to calculate the amounts of VELPAR® L to be impregnated per ton of dry fertilizer.

Pints VELPAR® L X 1 Ton = Pints VELPAR® L per Ton of Fertilizer Per Acre Fertilizer

APPLICATION

Uniform application of VELPAR® L-impregnated dry fertilizer is essential for satisfactory weed control. Accurate calibration of the application equipment is essential for uniform distribution to the surface. The customary method of application is to apply 1/2 the labeled rate and overlap 50%. This results in the best distribution pattern.

WEEDS CONTROLLED

VELPAR® L will control or suppress the following weed species in High and Low Bush Blueberry crops:

Aster, heath* Barnyardgrass Blackberry* (briar) Bluegrass, Kentucky (perennial)*
Brome, downy (cheatgrass) Broomsedge? Carrot, wild* Catchfly, English Chamomile, mayweed Cherry, wild Chickweed, common Cinquefoil Cockle, white*
Dandelion, common* Dandelion, false3 (spotted catsear) Daisy, oxeye Dock, curly Dogfennel Fescue* Fiddleneck, tarweed Filaree

Fireweed*(willowweed) Fleabane, flax-leaved Flixweed

Foxtail, yellow Goldenrod Groundsel, common

Hawkweed Horseweed/marestail Jimsonweed

Lambsquarters, common Lettuce, Miner's Lettuce, prickly* Mustard, blue

Mustard, Jim Hill (tumble) Orchardgrass *

Orchardgrass (seedling) Panicgrass (witchgrass) Panicum, fall Pearly everlasting Pennycress, field Pigweed, redroot Quackgrass Radish, wild Ragweed, common Raspberry* (briar) Rocket, London

Rocket, common yellow Ryegrass, Italian (annual) Ryegrass, perennial* Salsify

Shepherdspurse Smartweed, Pennsylvania

Sorrel, red Sorrel, sheep Spurry, corn Strawberry, wild Tansymustard (pinnate) Tea, Mexican*

Velvetgrass Yarrow 8 to 12 Pints/Acre

Dogbane* Meadow-sweet Blackberry, trailing Laurel, sheep Rose, wild**

Aster ericoides Echinochloa crus-galli Rubus spp

Poa pratensis Bromus tectorum Andropogon virginicus Daucus carota Silene gallica Anthemis cotula Prunus serotia Stellaria media Potentilla spp Melandrium album Taraxacum officinale

Hypochaeris radicata Chrysanthemum leucanthemum Rumex crispus Eupatorium capillifolium Festuca spp Amsinckia lycopsoides Erodium spp Epilobium angustifolium Conyza bonariensis Descurainia Sophia Setaria lutescens Solidago spp Senecio vulgaris Hieracium spp Conyza canadensis Datura stramonium Chenopodium album Montia perfoliata Lactuca serriola Chorispora tenella Sisymbrium altissimum Dactylis glomerata Dactylis glomerata Panicum capillare Panicum dichotomiflorum

Anaphalis margaritacea Thlaspi arvense Amaranthus retroflexus Agropyron repens Raphanus raphanistrum Ambrosia elatior Rubus spp Sisymbrium irio

Barbarea vulgaris Lolium multiflorum Lolium perenne Tragopogon spp Capsella bursa-pastoris Polygonum pensylvanicum Rumex acetosella Rumex angiocarpus

Spergula arvensis Fragaria virginiana Descurainia pinnata Chenopodium ambrosioides Holcus lanatus

Achillea spp

Apocynum spp Filipendula ulmaria Rubus ursinus Kalmia angustifolia Rosa spp

^{*} Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted

^{**} Harder to control species.

CHRISTMAS TREES

DuPontTM VELPAR® L is labeled for control of certain weeds where the following species are grown:

Fir, Douglas (western US only) Pseudotsuga menziesii Fir, Fraser Abies fraseri Abies grandis Fir, grand Fir, noble Abies procera Pine, Austrian Pinus nigra Pine, loblolly Pinus taeda Pine, ponderosa Pinus ponderosa Pine, Scotch Pinus sylvestris Spruce, Sitka Picea sitchensis

Unless otherwise directed in separately published DuPont instructions, do not use VELPAR® L on Christmas trees in the following states:

Alabama	Louisiana	New Jersey	Texas
Arkansas	Maine	New York	Vermont
Connecticut	Maryland	North Carolina	Virginia
Delaware	Massachusetts	Pennsylvania	West Virginia
Georgia	Mississippi	Rhode Island	
Florida	New Hampshire	South Carolina	

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® L as a broadcast spray in the spring prior to bud break. If application is made after bud break, use directional spray equipment to prevent contact with foliage.

WESTERN US

Areas of greater than 20 inches annual rainfall - VELPAR® L may be applied as a broadcast spray in the spring prior to conifer bud break. If application is made after bud break, use directional spray equipment to prevent contact with foliage.

Areas of less than 20 inches annual rainfall - VELPAR® L may be applied in the fall before the soil freezes or in the spring after snow cover melts, but before conifer bud break occurs.

USE RATES

The rates listed below are for broadcast application. For band application, use proportionately less; for example, use 1/2 of the broadcast rates when treating a 3-foot band where row spacing is 6 feet. Use the higher end of the rate range on the heavier soil type.

Do not use more than one application of VELPAR® L per year. VELPAR® L (Pints/Acre)

Soils	First Year Plantings	Established Trees
Coarse Texture		_
Loamy sand, sandy loam (50-85% sand)	4	4 - 5
Medium Texture		
Loam, silt loam, silt, clay loam, sandy clay loam	4 - 5	5 - 7
Fine Texture		_
Silty clay loam, clay loam, sandy clay,		
silty clay, clay	5 - 6	7 - 8

First year plantings - Transplant stock that is 2 years old or more (1 year old for loblolly pine). Apply VELPAR® L only if rainfall has settled the soil around the base and root systems of the transplants.

Established trees - Trees that have been planted in the plantation for 1 year or more.

WEEDS CONTROLLED

VELPAR® L is labeled for the control or suppression of the following weed species in Christmas tree crops:

Aster, heath* Aster ericoides Barnyardgrass Echinochloa crus-galli Bentgrass, common Agrostis alba Bluegrass, annual Poa annua Bromegrass Bromus spp Burnweed, American* Erechtites hieracifolius Carrot, wild Daucus carota Crabgrass* Digitaris spp Curly dock* Rumex crispus Daisy, oxeye Chrysanthemum leucanthemum Dandelion, common* Taraxacum officinale Dandelion, false* (spotted catsear) Hypochaeris radicata Fescue* Festuca spp Fleabane Conyza spp Foxtail Setaria spp Goldenrod* Solidago spp Groundsel, common Senecio vulgaris Horseweed/marestail Conyza canadensis Orchardgrass * Dactylis glomerata Ragweed, common Ambrosia elatior Ryegrass, Italian (annual) Lolium multiflorum Ryegrass, perennial* Lolium perenne Smartweed, Pennsylvania Polygonum pensylvanicum Velvetgrass, common Holcus lanatus

SPRAY EQUIPMENT

VELPAR® L may be applied by ground equipment or by air.

Select a spray volume that will ensure a thorough and uniform application. Apply a minimum of 5 gallons per acre by air and a minimum of 10 gallons per acre by ground equipment.

USE PRECAUTIONS AND RESTRICTIONS CHRISTMAS TREES

- Do not use VELPAR® L in nurseries, seed beds, or ornamental plantings.
- Do not add a surfactant in applications over the top of conifers.
- Weed control results from spring applications depend on sufficient moisture to activate VELPAR® L.
- Livestock may be grazed immediately following a broadcast application of VELPAR® L at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of VELPAR® L at broadcast rates exceeding 4.5 pints per acre.

^{*} Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

- Poor weed and brush control may result from the following:
 - -Heavy duff or slash present at the time of application.
 - -Use on poorly drained sites.
 - -Applications made when soil is saturated with water and rain is imminent within 24 hours.
 - -Applications to soils high in organic matter (greater than 5%).
- Injury may occur when DuPontTM VELPAR® L is used on the following:
 - -Trees that show poor vigor, insect damage, disease, winter injury, or other stress conditions.
 - -Any soil containing less than 1% organic matter.
 - -Loamy sand or sandy loam with less than 2% organic matter (except Jeffrey Pine and Ponderosa Pine).
 - -Foliage after bud break.
 - -Gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soil with 85% or more sand.

PINEAPPLE

VELPAR® L is labeled for control of certain weeds in pineapple.

APPLICATION INFORMATION

Mix the proper amount of VELPAR® L in water. Add a surfactant at 0.25% by volume of water.

Use the lower rates on coarse-textured soils or in areas where rainfall exceeds 65 inches per year. Use the higher rates on fine-textured soils or in areas where rainfall is less than 65 inches per year.

Intercrop period - Apply VELPAR® L as a broadcast spray in 100–400 gallons of water per acre at the rate of 0.9–7 pints per acre. For aerial application, use at least 10 gallons water per acre.

Post mulch, preplant - Apply VELPAR® L as a broadcast spray in 100–400 gallons of water per acre at the rate of 0.9–7 pints per acre.

Post plant, before planting material starts active growth

- Apply VELPAR® L as a broadcast spray in 100–400 gallons of water per acre at the rate of 0.9–7 pints per acre. When weed growth has escaped control by other herbicide applications, a post-planting application may be made after the planted cuttings start to grow.

Post-plant crop harvest, prior to forcing first ratoon - Apply VELPAR® L as a broadcast spray in 100–400 gallons of water per acre at the rate of 0.9–7 pints per acre.

Directed postemergence (pineapple and weeds) interspace application - Apply VELPAR® L as a directed spray 3–10 months after planting in 50–200 gallons of water per acre (broadcast basis) at the rate of 0.9–7 pints per acre (broadcast basis) using a stroller boom or knapsack.

Directed spot treatments for perennial grasses before floral induction - Spray perennial grasses postemergence to wet (50–200 gallons per acre depending on size) with 3.5–7 pints per 100 gallons of water as a spot treatment.

Treatments to field edges and roadsides - Apply VELPAR® L at 7–14.5 pints per acre in 100–400 gallons of water.

WEEDS CONTROLLED

VELPAR® L is labeled for the control or suppression of the following weeds in pineapple crops:

Ageratum, tropic	Ageratum conycoides
Balsamapple	Momordica charantia
Castorbean	Ricinus communis
Crabgrass	Digitaria spp
Crotalaria	Crotolaria spp
Dallisgrass	Paspalum dilatatum
Guineagrass	Panicum maximum
Junglerice	Echinochloa colonum
Kao haole*	Leucaena glauca
Moana loa vine*	Canavalia cathartica
Morningglory	Ipomoea spp
Oxalis	Oxalis spp
Popolo	Solanum sandwicense
Richardsonium	Richardsonia spp
Vaseygrass	Paspalum urvillei

* Suppression - a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

USE PRECAUTIONS AND RESTRICTIONS PINEAPPLE

- Do not apply VELPAR® L within 181 days of harvest.

SUGARCANE

VELPAR® L is labeled for selective weed control in sugarcane except in the State of Florida.

APPLICATION INFORMATION

Apply a single treatment of VELPAR® L per year using a fixed-boom sprayer and a minimum of 25 gallons of spray per acre unless otherwise directed.

HAWAII

Apply VELPAR® L pre- or postemergence at the following rates for the indicated soil texture:

	VELPAR® L (Pints/Acre)
Soil Texture	(Plus surfactant
Description	0.25% by volume)
Coarse	
Sand, loamy sand, sandy loam	1.8 - 3.5
Medium	
Loam, silt loam, silty clay loam	1.8 – 7.0
Fine	
Clay, gray hydromorphic clay	7.0 - 14.5

Use the higher levels of the labeled rate ranges on soils high in organic matter. Do not apply more than twice the highest labeled rate for the indicated soil texture per crop (18–24 months).

Add an adjuvant for all uses.

For preemergence use only, VELPAR® L may be applied with aerial equipment using at least 10 gallons of spray per acre.

Apply DuPontTM VELPAR® L herbicide as a spot spray application for emerged weeds in sugarcane. Mix 3 to 12 pints of VELPAR® L per 100 gallons of water. Apply a sufficient volume of spray solution to thoroughly wet weed foliage but do not exceed a use rate of 14.4 pints per acre. Use the lower concentrations on coarse-textured soils that are low in organic matter, and use the higher concentrations on fine-textured soils that are high in organic matter.

LOUISIANA

Apply 1.8–3.5 pints of VELPAR® L per acre broadcast in the fall before sugarcane emerges or in the spring before active cane tillering begins. Fall treatments of 1.8–3 pints per acre may be followed by a spring treatment of 1.8–3 pints per acre. Do not apply more than 6 pints per year. Use the higher levels of the labeled rate range on fine-textured soils.

PUERTO RICO

For preemergence treatments, apply 0.9–1.8 pints of VELPAR® L per acre.

For postemergence treatments, apply 0.9–1.8 pints of VELPAR® L per acre to weeds after they have emerged. Use the lower rates on coarse-textured soils and the higher rates on fine-textured soils (high in clay or organic matter). Each ratoon may receive up to 1.8 pints of VELPAR® L per acre.

For spot treatment of emerged weeds, VELPAR® L may be applied with a knapsack sprayer in concentrations of 0.9–1.8 pints per 100 gallons of water. Apply a sufficient spray volume to wet the weed foliage. Do not exceed 100 gallons of spray per treated acre. Use the lower concentration on coarse-textured soils and the higher concentration on fine-textured soils.

Note: Since it is difficult to calibrate "spot" knapsack applications, extra care must be taken not to exceed the rate equivalent of the maximum of 1.8 pints VELPAR® L per acre.

Do not apply more than 3.6 pints of VELPAR® L per acre per crop.

TEXAS

Apply 1.8–7 pints of VELPAR® L per acre. On plant cane, apply the herbicide before the cane emerges or as a directed layby treatment. On stubble cane, apply VELPAR® L preemergence or early postemergence (up to the 3-leaf stage) or as a directed layby treatment. A pre- or early postemergence treatment may be followed by a layby treatment, provided at least 60 days have elapsed and 3 inches of rainfall or sprinkler irrigation have occurred since the first treatment.

Do not apply more than 7 pints of VELPAR® L per acre per crop.

Use the following rates for the soil texture:

Soil Texture	VELPAR® L (Pints/Acre)		
Description	Preemergence	+	Layby
Coarse*			
Sandy loam	1.8		1.8
Medium			
Loam, silt loam	2.7		2.7
Fine			
Clay loam	3.5		3.5

^{*} With at least 2% organic matter

On dormant cane, a surfactant may be added to the spray mixture to increase control of emerged weeds.

WEEDS CONTROLLED

VELPAR® L will control or suppress the following species in sugarcane crops:

Ageratum, tropic*	Ageratum conycoides
Alexandergrass	Brachiaria plantaginea
Balsamapple	Momordica charantia
Barnyardgrass	Echinochloa crus-galli
Bermudagrass*	Cynodon dactylon
Burnweed, American (fireweed)	Erechtites hieracifolius
Chickweed, common	Stellaria media
Crabgrass, large	Digitaria sanguinalis
Crabgrass, smooth	Digitaria ischaemum
Crotalaria, fuzzy	Crotalaria incana
Crotalaria, showy	Crotalaria spectabilis
Cuphea, tarweed	Cuphea carthagenensis
Dallisgrass	Paspalum dilatatum
Fingergrass, radiate	Chloris radiata
Fingergrass, swollen	Chloris barbata
Foxtail, bristly	Setaria verticillata
Foxtail, yellow	Setaria lutescens
Geranium, Carolina	Geranium carolinianum
Goosegrass	Elusine indica
Guineagrass	Panicum maximum
Henbit	Lamium amplexicaule
Itchgrass*	Rottboellia cochinchinensis
Job's-tears	Coix lacryma
Johnsongrass (seedling)	Sorghum halepense
Junglerice	Echinochloa colonum
Lambsquarters, common	Chenopodium album
Millet, Texas	Panicum texanum
Morningglory, hairy	Ipomoea pentaphylla
Morningglory, threelobe	Ipomoea triloba
Mustard, wild	Sinapis arvensis
Oxalis	Oxalis spp
Paintbrush, Flora's	Emilia sonchifolia
Panicum, browntop	Panicum fasciculatum
Paspalum, ricegrass	Paspalum orbiculare
Paspalum, sour	Paspalum conjugatum
Pigweed, redroot	Amaranthus retroflexus
Pigweed, slender (green)	Amaranthus viridus
Pigweed, smooth	Amaranthus chlorostachys
Popolo	Solanum sandwicense
Purslane, common	Portulaca oleracea
Sandbur	Cenchrus spp
Sensitive plant (hila hila)	Mimosa spp
Signalgrass, broadleaf	Brachiaria platyphylla
Sowthistle, common	Sonchus oleraceus
Spanishneedles	Bidens bipinnata
Sprangletop	Leptochloa spp
Spurge, prostrate	Euphorbia humistrata
Spurge, graceful	Chamaesyce hypericifolia
Sunflower	Helianthus spp
Vaseygrass	Paspalum urvillei
Waltheria (hia loa)	Waltheria spp

^{*} Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

USE PRECAUTIONS AND RESTRICTIONS SUGARCANE

- Do not plant any crop other than sugarcane following an application of DuPontTM VELPAR® L.
- Do not feed sugarcane forage to livestock.
- Do not apply VELPAR® L:
- Within 180 days of harvest in Hawaii.
- Within 234 days of harvest in Louisiana.
- Within 288 days of harvest in Puerto Rico.
- Within 234 days of harvest in Texas.
- To avoid injury to sugarcane, observe the following precautions:
- Do not use VELPAR® L on cane that shows poor vigor because of insect damage, disease, or winter injury, or shows symptoms of other stress conditions such as drought stress.
- Do not add a surfactant in applications unless otherwise specified or allowed.
- Do not use VELPAR® L on gravelly or rocky soils, thinly covered subsoils, or coarse-textured soils (sands to sandy loams) with less than 1% organic matter.
- Temporary chlorosis of the crop may result from application over emerged cane. Applications during active cane growth must be directed to cover the weeds and soil while minimizing crop contact.
- Do not use VELPAR® L on varieties known to be susceptible to herbicides.
- Extremely heavy rainfall after application may result in poor weed control and/or crop injury, especially if the application is made to dry soil.

FORESTRY

SITE PREPARATION

VELPAR® L is labeled for weed and brush control in areas where the following species are grown:

EASTERN US AND LAKE STATES

Abies balsamea
Pinus negra
Pinus taeda
Pinus palustris
Pinus ponderosa
Pinus resinosa
Pinus sylvestris
Pinus echinata
Pinus elliottii
Pinus virginiana
Picea mariana
Picea rubens
Picea glauca

WESTERN US

Fir, Douglas	Pseudotsuga menziesii
Fir, grand	Abies grandis
Fir, Noble	Abies procera
Fir, white	Abies concolor
Pine, Jeffrey	Pinus jeffreyi
Pine, lodgepole	Pinus contorta
Pine, ponderosa	Pinus ponderosa
Spruce, blue	Picea pungens
Spruce, Engleman	Picea englemannii
Spruce, Sitka	Picea sitchensis

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® L from early spring to early summer after hardwoods have broken bud and before the foliage has hardened off.

Soil Texture	VELPAR® L (Quarts/Acre)
Description	Eastern US
Coarse	
Sand, loamy sand, sandy loam	4-6
Medium	
Loam, silt loam, sandy clay loam	6 – 8
Fine	
Silty clay loam, clay loam, sandy clay, silt, silty clay, clay	8 – 10

The rates listed are for broadcast application. Use the lower rates on coarse textured soils and soils low in organic matter. Use the higher rates where weeds identified in this label as "partial control or suppression" predominate.

WESTERN US

For **SITE PREPARATION**, VELPAR® L may be applied at 2 to 6 quarts pre acre. Use the lower rates on coarse textured soils and soils low in organic matter. Use the higher rates on fine textured soils and soils high in organic matter. Use the higher rates where weeds identified in this label as "partial control or suppression" predominate.

In areas where other conifer species may be mixed in with the conifers listed above, VELPAR® L may be applied if the user has prior experience with VELPAR® L on the other conifer species. With no prior experience, it is advised that either a small area of plantings be tested for conifer safety prior to treating larger areas, or make no application of VELPAR® L in these areas within the site preparation area. Conifer species that are sensitive to VELPAR® (hexazinone) L, such as, sugar pine and western larch, require 18 months before interplanting on treated sites.

Applications made to shelter wood sites may also result in mortality to over-story conifers. Factors that may influence conifer sensitivity in these sites could include application rate, conifer species, soil characteristics, uniformity of spray distribution across the treatment swath and environmental stress.

Rain Belt (areas of high spring rainfall): For best results, apply in late winter or spring when weeds and brush are actively growing.

Snow Belt (areas of low spring rainfall): For best results, apply in the fall before soil freezes, or in the spring after snow cover melts in anticipation of rainfall. Weed and brush control results from spring applications will be dependent on sufficient rainfall following application to activate VELPAR® L.

PLANTS CONTROLLED

DuPontTM VELPAR® L is labeled for the control or suppression of the following species in forestry site preparation:

HERBACEOUS PLANTS

Asters

Aster, heath* Aster ericoides Barnyardgrass Echinochloa crus-galli

Bentgrass Agrostis spp
Bluegrass, annual
Bromegrass Bromus spp
Carrot, wild Daucus carota
Crabgrass* Digitaria spp

Daisy, oxeye Chrysanthemum leucanthemum
Dandelion, common* Taraxacum officinale

Dandelion, common* To Dandelion, false*

(spotted catsear) Hypochaeris radicata
Dock, curly* Rumex crispus
Elksedge Carex geyeri
Fescue* Festuca spp

Fireweed*(willowweed) Epilobium angustifolium

Conyza spp Fleabane Foxtail Setaria spp Solidago spp Goldenrod* Groundsel, common Senecio vulgaris Horseweed/marestail Conyza canadensis Mullein, common** Verbascum thapsus Orchardgrass Dactylis glomerata Pinegrass Calamagrostis rubescens Quackgrass* Agropyron repens Ragweed, common Ambrosia elatior Ryegrass, Italian (annual) Lolium multiflorum Ryegrass, perennial* Lolium perenne Smartweed,

Pennsylvania Polygonum pensylvanicum
Squawcarpet Ceanothus prostratus
Thistle, Canada* Cirsium arvense
Velvetgrass, common Holcus lanatus

WOODY PLANTS

Ash Fraxinus spp Aspen, big tooth Populus grandidentata Aspen, trembling Populus tremuloides Birch Betula spp Nyssa sylvatica Blackgum Cherry, black Prunus serotina Deerbrush Ceanothus integerrimus Dogwood, flowering* Cornus florida Elm Ulmus spp Crataegus spp Hawthorn Hazel Corylus spp Hickory Carya spp Honeysuckle* Lonicera spp Manzanita, Greenleaf Arctostaphylos patula Maple, red* Acer rubrum Oaks Quercus spp Populus balsamifera Poplar, balsam Snowbrush (varnishleaf) Ceanothus velutinus Sourwood* Oxydendrum arboretum Liquidambar spp Sweetgum Willows Salix spp

Within several weeks after VELPAR® L activation by rainfall, affected vegetation may be burned, if desired. This burn may

further enhance control of vegetation. Burn the vegetation only after any residual stand is completely defoliated, at least twice, allowing for sufficient root uptake of VELPAR® L. In the West, results may take one to two years in areas of low rainfall.

SPRAY EQUIPMENT

When applied as a liquid spray using water as the carrier, VELPAR® L may be applied by ground equipment or by air (helicopter only).

For ground application, use enough water for thorough coverage, usually a minimum of 25 gallons per acre. For aerial applications, use at least 5 gallons of water per acre and at least 5 gallons of water for every 1 gallon of VELPAR® L.

GRID APPLICATION

Apply undiluted VELPAR® L directly to the soil surface in a grid pattern using an exact delivery handgun applicator. This equipment delivers a thin stream of a predetermined volume. VELPAR® L must be applied during the period from hardwood bud break to early summer.

Selection of the rate per acre and grid pattern will depend on soil texture and woody plant composition. Use the lower rates on coarse textured soils and when the major component of the hardwoods are susceptible species. Use the high rates on fine-textured soils and where weeds identified in the label as "partial control or suppression" predominate.

Application Patterns and Rates For Undiluted VELPAR® L

			Quarts/
	ML/Spot	Grid (Ft)	Acre
Coarse	0.6	3 X 3	3
	2.0	4 X 4	6
	3.1	4 X 6	6
Medium/Fine	1.6	3 X 3	8
	2.8	4 X 4	8
	3.5	4 X 4	10
	5.2	4 X 6	10

BASAL (SOIL) SINGLE STEM TREATMENT

Apply undiluted VELPAR® L to the soil with an exact delivery handgun applicator. Apply at the rate of 2–4 ml for each inch of stem diameter at breast height. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of VELPAR® L is needed per stem, make application on opposite sides of the stem.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply VELPAR® L at the rate of 2–4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4–8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).

When treating brush that requires more than a single 4 ml application of VELPAR® L, apply subsequent applications

^{**} For western US site preparation, apply at 6 quarts per acre.

^{*}Suppression is a visible reduction in plant competition (reduced population and/or vigor) as compared to an untreated area. Degree of suppression will vary with rate applied, size of plants at application and environmental conditions following treatment. Species indicated above, especially resprouts of these species, may require a follow up treatment for acceptable control. Burning, as a follow up treatment, will enhance control of resprouts.

equally spaced around the plant. If treating brush on sloped sites, apply most of the DuPontTM VELPAR® L on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or shredding, the rate of application must be proportional to the original tree size, not just the small regrowth of sprouts.

INJECTION

No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Inject 1 ml of undiluted VELPAR® L through the bark of undesirable trees. Make injections at 4 inch intervals around the circumference of the tree. When using tubular injection equipment, inject near the ground level. When using the "Hypo-Hatchet" Tree Injector or a similar device, inject at waist height. Best results if treatments are made in the summer. Woody species controlled include black cherry, oaks, and sweetgum.

USE PRECAUTIONS AND RESTRICTIONS SITE PREPARATION

- Where burning is desired, burn the vegetation only after any residual brush has completely defoliated, at least twice, allowing for sufficient root uptake of VELPAR® L.
- Following harvest, allow sufficient time for stumps and injured trees to adequately resprout before applying VELPAR® L.

FORESTRY RELEASE

VELPAR® L is labeled for conifer release where the following species are grown:

EASTERN US AND LAKE STATES

Fir, balsam	Abies balsamea
Pine, loblolly	Pinus taeda
Pine, longleaf	Pinus palustris
Pine, red	Pinus resinosa
Pine, shortleaf	Pinus echinata
Pine, slash	Pinus elliotti
Pine, Virginia	Pinus virginiana
Spruce, black	Picea mariana
Spruce, Norway	Picea abies
Spruce, red	Picea rubens
Spruce, white	Picea glauca

WESTERN US

Fir, Douglas	Pseudotsuga menziesii
Fir, grand	Abies grandis
Fir, Noble	Abies procera
Fir, white	Abies concolor
Hemlock, Western	Tsuga heterophylla
Pine, Jeffrey	Pinus jeffreyi
Pine, lodgepole	Pinus contorta
Pine, ponderosa	Pinus ponderosa
Spruce, blue	Picea pungens
Spruce, Englemann	Picea englemannii
Spruce, Sitka	Picea sitchensis

APPLICATION INFORMATION

EASTERN US

Apply VELPAR® L from early spring to early summer after hardwoods have broken bud and before full leaf expansion.

Applications made over the top of pines may result in excessive pine injury under conditions of high humidity and temperature (80 degrees F).

WESTERN US

Rainbelt (areas of high spring rainfall): For best results, apply in late winter or spring when brush is actively growing, but prior to conifer budbreak. Dormant trees are less susceptible to injury. Applications where the spray comes into direct contact with conifers after dormancy break in the spring or before the final resting bud has hardened in the fall may severely injure or kill the trees.

Snowbelt (areas of low spring rainfall): For best results, apply in the fall before soil freezes and after the final resting bud has hardened on the conifers. Or, spring applications may be made after snow cover melts in anticipation of rainfall prior to conifer budbreak. Brush control results from spring treatments will be dependent on sufficient rainfall following application to activate VELPAR® L.

USE RATES

The rates listed below are for broadcast application. Use the higher rate range for the harder to control (*suppression) species in the PLANTS CONTROLLED listings of the Site Prep and Release sections. Do not use more than one application of VELPAR® L per year.

VELDADO I

EASTERN US

	Soil Texture	VELPAR® L (Quarts/Acre)
Crop Species	Description 1	Established Trees
Loblolly pine	Loamy sand,	
Longleaf pine	sandy loam	2 - 3
Shortleaf pine	Loam, silt loam,	
Virginia pine	silt, sandy clay loam	2 - 4
Slash pine	Silty clay loam,	
	clay loam, sandy clay,	
	silty clay, clay	4.5 - 6
Red pine	Loamy sand, sandy loa	m 2-4
	Loam, silt loam, silt,	
	sandy clay loam	4 – 6
	Silty clay loam, clay lo	am,
	sandy clay, silty clay, c	lay 6 – 8

Established Trees

- 4 years of age from transplanting on coarse-textured soils
- 3 years of age from transplanting on medium-textured soils
- 2 years of age from transplanting for Red Pine

WESTERN US

Application rates by soil type for DuPontTM VELPAR® L in the following western conifers: Blue spruce, Douglas fir, Engleman spruce, Grand fir, Jeffrey pine, Lodgepole pine, Noble fir, Ponderosa pine, Sitka spruce, Western hemlock, and White fir.

Soil Texture	VELPAR® L	
Description	(Quarts/Acre)	
Loamy sand, sandy loam	2 - 4.5	
Loam,		
silt loam,		
sandy clay loam	3.5 - 6	
Silt, silty clay loam,		
clay loam,		
sandy clay, silty clay,		
clay	5 - 6	

For first year plantings using bare root stock, treat only transplant stock that is 2 years old (2-0, 1-1) or more, except (1-0) for Ponderosa and Jeffrey pines. Apply VELPAR® L only if rainfall has settled the soil around the base and root systems of the transplants.

BRUSH CONTROLLED

VELPAR® L is labeled for the control or suppression of the following species in forestry release sites:

Ash	Fraxinus spp
Aspen, big tooth	Populus grandidentata
Aspen, trembling	Populus tremuloides
Birch	Betula spp
Elder, box	Acer negundo
Brambles	Rubus spp
Cherry, black	Prunus serotina
Cherry, pin	Prunus pensylvanica
Deerbrush	Ceanothus integerrimus
Dogwood, flowering*	Cornus florida
Elm	Ulmus spp
Hawthorn	Crataegus spp
Hazel	Corylus spp
Honeysuckle*	Lonicera spp
Manzanita, Greenleaf	Arctostaphylos patula
Maple, red*	Acer rubrum
Oaks	Quercus spp
Poplar, balsam	Populus balsamifera
Snowbrush (varnishleaf)	Ceanothus velutinus
Sourwood*	Oxydendrum arboretum
Sweetgum	Liquidambar spp
Willows	Salix spp

^{*} Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

In addition to brush controlled, herbaceous species listed in Weeds Controlled section of Release-Herbaceous Weed Control may be controlled with these applications.

SPRAY EQUIPMENT

When applied as a liquid spray using water as the carrier, VELPAR® L may be applied by ground equipment or by air (helicopter only).

For ground application, use enough water for thorough coverage, usually a minimum of 25 gallons per acre. For aerial applications, use at least 5 gallons of water per acre and at least 5 gallons of water for every 1 gallon of VELPAR® L.

GRID APPLICATION

Apply undiluted VELPAR® L directly to the soil surface in a grid pattern using an exact delivery handgun applicator. This equipment delivers a thin stream of a predetermined volume when triggered. Apply VELPAR® L during the period from hardwood bud break to early summer.

Selection of the rate per acre and grid pattern depends on soil texture and woody plant composition. Use the lower rates on coarse textured soils and when the major component of the hardwoods are susceptible species. Use the high rates on fine-textured soils and where weeds identified in this label as "partial control or suppression" predominate.

Application Patterns and Rates For Undiluted VELPAR® L

	ML/Spot	Grid (Ft)	Quarts/ Acre
Coarse	0.5	3 X 4	2*
	1.2	3 X 6	3
	2.1	4 X 6	4
Medium/Fine	1.2	3 X 3	6
	2.3	3 X 6	6
	1.6	3 X 3	8
	3.1	3 X 6	8

^{*} Use on deep sands with pines four years or more of age.

BASAL (SOIL) SINGLE STEM TREATMENT

Apply undiluted VELPAR® L to the soil with an exact delivery handgun applicator. Apply at the rate of 2–4 ml for each inch of stem diameter at breast height. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of VELPAR® L is needed per stem, make application on opposite sides of the stem.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply VELPAR® L at the rate of 2–4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4–8 ml per 3 feet of height. Base rate on whichever canopy dimension is greater (width or height).

When treating brush that requires more than a single 4 ml application of VELPAR® L, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the VELPAR® L on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or shredding, the rate of application must be proportional to the original tree size, not just the small regrowth of sprouts.

INJECTION

No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Inject 1 ml of undiluted VELPAR® L through the bark of undesirable trees. Make injections at 4 inch intervals around the circumference of the tree. When using tubular injection equipment, inject VELPAR® L near the ground level. When using the "Hypo-Hatchet" Tree Injector or a similar device,

inject at waist height. Best results if treatments are made in the summer. Woody species controlled include black cherry, oaks, and sweetgum.

USE PRECAUTIONS AND RESTRICTIONS RELEASE - UNDILUTED APPLICATIONS

- Application of DuPontTM VELPAR® L basal soil spot treatments closer than 36 inches to conifer seedlings in their first season or directly up slope from these seedlings may result in injury or mortality.
- Use VELPAR® L on seedlings in their first or fourth year and older. Injury may result from use on two and three year old seedlings where root growth is extensive but hardiness is lacking.

RELEASE- HERBACEOUS WEED CONTROL

VELPAR® L is labeled for controlling herbaceous weeds where these pine species are grown:

EASTERN US

Loblolly pine Longleaf pine	Red pine Slash pine	

WESTERN US

Blue spruce	Noble fir
Douglas fir	Ponderosa pine
Engleman spruce	Sitka spruce
Grand fir	Western hemlock
Jeffrey pine	White fir
Lodgepole pine	

APPLICATION TIMING

EASTERN US

Apply VELPAR® L as a broadcast or banded spray in the spring prior to conifer bud break to lessen conifer injury potential.

WESTERN US

Rainbelt (areas of high spring rainfall): For best results, apply as a broadcast or banded spray in the late winter or spring when weeds are actively growing, but prior to conifer budbreak. If application is made after conifer bud break, use directional spray equipment to prevent contact with conifer foliage, as injury may result.

Snowbelt (areas of low spring rainfall): For best results, apply as a broadcast or banded spray in the fall before soil freezes and after the final resting bud has hardened on the conifers. Or, spring applications may be made after snow cover melts in anticipation of rainfall prior to conifer budbreak. Weed control results from spring treatments will be dependent on sufficient rainfall following application to activate VELPAR® L.

USE RATES

The rates listed below are for broadcast application. For band application, use proportionately less. For example, use 1/2 of the broadcast rates when treating a 3-foot band where row spacing is 6 feet. Use the higher rate range for the harder to control (*Suppression) weeds listed in the table below.

EASTERN US

	VELPAR® L (Pints/Acre)	
Soil Texture	First Year	Established
Description	Plantings	Trees
Loamy sand, sandy loam(50-85% sand)	4	4 – 5
Loam, silt loam, silt, sandy clay loam	4 – 5	5 – 7
Silty clay loam, clay loam, sandy clay, silty clay, clay	5-6	7 – 8

Red pine only - Refer to labeled rates in the FORESTRY RELEASE - Use Rates Eastern US section of the label.

WESTERN US

Refer to labeled rates in the FORESTRY RELEASE - Use Rates Western US section of the label.

WEEDS CONTROLLED - RELEASE

VELPAR® L is labeled for the control or suppression of the following species in forestry release sites:

Asters	Aster spp
Aster, heath*	Aster ericoides
Barnyardgrass	Echinochloa crus-galli
Bentgrass	Agrostis spp
Bluegrass, annual	Poa annua
Brackenfern	Pteridium aquilinum
Bromegrass	Bromus spp
Carrot, wild	Daucus carota
Crabgrass*	Digitaria spp
Daisy, oxeye	Chrysanthemum leucanthemum
Dandelion, common*	Taraxacum officinale
Dandelion, false*	
(spotted catsear)	Hypochaeris radicata
Dock, curly*	Rumex crispus
Fescue*	Festuca spp
Fireweed*(willowweed)	Epilobium angustifolium
Fleabane	Conyza spp
Foxtail	Setaria spp
Goldenrod*	Solidago spp
Groundsel, common	Senecio vulgaris
Horseweed/marestail	Conyza canadensis
Orchardgrass *	Dactylis glomerata
Panicums	Panicum spp
Pinegrass	Calamagrostis rubescens
Ragweed, common	Ambrosia elatior
Ryegrass, Italian (annual)	Lolium multiflorum
Ryegrass, perennial*	Lolium perenne
Smartweed, Pennsylvania	Polygonum pensylvanicum
Squawcarpet	Ceanothus prostratus
Velvetgrass, common	Holcus lanatus
<i>U</i> ,	

^{*} Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

FORESTRY—IMPREGNATION ON DRY BULK FERTILIZER

VELPAR® L is labeled for impregnating or coating dry bulk fertilizer to be applied on forested sites for the establishment or release of conifer plantations (except longleaf pine) as specified on this label.

PLANTS CONTROLLED

Fertilizer impregnated with VELPAR® L is labeled for the control and suppression of the weeds and brush identified for the specific applications on this label. Consult the appropriate segment of this label to determine the

appropriate rate of DuPontTM VELPAR® L to be applied per acre. Apply this amount of VELPAR® L to the volume of fertilizer to be applied per acre.

IMPREGNATION EQUIPMENT

To impregnate or coat the fertilizer use a system consisting of conveyor or closed drum used to blend dry bulk fertilizer.

IMPREGNATION INSTRUCTIONS

VELPAR® L may be used undiluted or mixed with a sufficient quantity of water to ensure thorough coverage of the fertilizer.

Direct the spray nozzles of the impregnation equipment to deliver a fine spray of the mixture toward the fertilizer for thorough coverage while avoiding contact with mixing equipment. The use of a colorant or dye may be beneficial to visually determine the uniformity of impregnation.

Uniform impregnation of dry bulk fertilizer may vary. If absorption of the spray is not adequate, the use of an absorptive powder or additive, such as "Microcel E" or "HiSil 233", may be required to produce a dry, free flowing mixture.

Apply the fertilizer as soon as possible after impregnation for optimum performance. Impregnated fertilizer may become lumpy and difficult to apply following storage.

Diammonium phosphate, potassium chloride, 16-16-16 and 24-4-4 have been successfully impregnated.

APPLICATION EQUIPMENT

Applications of impregnated fertilizer may be made by ground equipment or by air (helicopter or fixed wing). Accurate calibration and patterning of the equipment is essential for uniform distribution of the impregnated fertilizer on the soil surface.

USE PRECAUTIONS AND RESTRICTIONS FORESTRY - IMPREGNATED FERTILIZER

- If fertilizer materials are excessively dusty, use a suitable additive to reduce dust prior to impregnation. Application of dusty fertilizer which has been impregnated may result in off-target drift and injury to desirable vegetation. Such drift and associated injury may be aggravated by high wind conditions.
- The dry fertilizer must be properly impregnated and uniformly applied to avoid pine injury/mortality and poor weed and brush control.
- Uniform and precise application of the impregnated fertilizer is essential for satisfactory weed and brush control and to minimize pine injury. Overlaps or skips between adjoining swaths or nonuniform distribution of impregnated fertilizer within the swath will deliver poor results and may result in pine injury or mortality.
- Do not impregnate potassium nitrate, sodium nitrate or triple super phosphate fertilizers with VELPAR® L as herbicidal action will be lost.

USE PRECAUTIONS AND RESTRICTIONS FORESTRY

- Do not use VELPAR® L in nurseries, seedbeds, or ornamental plantings.
- On tracts of land where various soil types are present and VELPAR® L rate selection is difficult, conifer damage or less-than-expected vegetation suppression may occur due to the different rates required for various soil types.
- Poor weed and brush control may result from the following:
 - -Heavy duff or slash present at time of application.
 - -Use on poorly drained sites.
 - Applications made when the soil is saturated with water and rain is imminent within 24 hours.
 - Applications to soils high in organic matter (greater than 5%).
- Following harvest, allow stumps and injured trees sufficient time to adequately resprout before applying VELPAR® L.
- Where burning is desired, burn vegetation only after any brush has completely defoliated, at least twice, allowing for sufficient root uptake of VELPAR® L
- Do not use VELPAR® L on frozen soils; use in spring after snow melt.
- Leave treated soil undisturbed to reduce the potential for VELPAR® L, movement by soil erosion due to wind or water
- Do not add a surfactant in applications over the top of conifers.
- Weed control results from spring applications depend on sufficient moisture to activate VELPAR® L.
- When applying VELPAR® L after transplanting, wait until rainfall has settled the soil around the base and root systems of the transplants before making the treatment.
- Crop injury may occur when VELPAR® L is used:
 - On trees that show poor vigor, insect damage, disease, winter injury, or other stress conditions
 - -On any soil containing less than 1% organic matter
 - -On loamy sand or sandy loam with less than 2% organic matter, except Jeffrey pine and Ponderosa pine
 - -On conifer foliage after conifer bud break
 - -On gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soil with 85% or more sand
 - -On crop species not listed on this label
- Livestock may be grazed immediately following a broadcast application of VELPAR® L at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of VELPAR® L at broadcast rates exceeding 4.5 pints per acre.

YELLOW POPLAR PLANTINGS

VELPAR® L is labeled for the control of herbaceous weeds in the establishment of yellow poplar plantations. Applications may be made over the top of planted seedlings after the soil has settled around the root systems but before

the seedlings have broken dormancy (bud break). A subsequent application may be made before dormancy break in the Spring of the second year.

Apply 4 to 6 pints per acre of DuPontTM VELPAR® L as specified on the package label for "RELEASE—HERBACEOUS WEED CONTROL" in pine plantations in the eastern U.S. Follow the label instructions regarding varying the application rate by soil texture.

For ground application, use enough water for thorough coverage, usually a minimum of 25 gallons per acre. For aerial applications, use at least 5 gallons of water per acre and at least 5 gallons of water for every 1 gallon of VELPAR® L.

For broader spectrum control VELPAR® L may be tank mixed with $DuPont^{TM}$ ESCORT® herbicide. Add ESCORT® at a rate of 1/2 ounce per acre to a tank mix with the prescribed rate of VELPAR® L.

USE PRECAUTIONS AND RESTRICTIONS YELLOW POPLAR PLANTINGS

- Applications of VELPAR® L and tank mixes of VELPAR® L and ESCORT® made to yellow poplar seedlings that are suffering from loss of vigor caused by insects, disease, drought, winter damage, animal damage, excessive soil moisture, planting shock or other stresses may injure or kill the seedlings.
- Applications of VELPAR® L and tank mixes of VELPAR® L and ESCORT® must only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- The use of surfactant with VELPAR® L is not advised for applications made over the tops of seedlings.
- Careful consideration must be given by an experienced and knowledgeable forester to ensure the specific growth requirements of yellow poplar will be provided by the selected planting site. Treatment of yellow poplar planted on a site inadequate to meet its requirements may injure or kill the seedlings.
- Refer to package labels for information regarding spray drift management.

PASTURE/RANGELAND

VELPAR® L is labeled for control of brush and weeds in pasture.

BERMUDAGRASS / BAHIAGRASS

VELPAR® L is labeled for control of smutgrass and other weeds in established stands of bermudagrass and bahiagrass.

APPLICATION INFORMATION

Make a single application of VELPAR® L per year when weeds are actively growing.

WEEDS CONTROLLED - USE RATES

VELPAR® L effectively controls the following weeds at the rates shown. Use a lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

2 3/4 – 4 1/2 Pints/Acre

Barley, little Hordeum pusillum Echinochĺoa crus-galli Barnyardgrass Dogfennel Eupatorium capillifolium Festuca spp Fescue Lespedeza Lespedeza cuneata Oxalis spp Oxalis Passionflower, maypop Passiflora incarnate Pepperweed, Virginia Lepidium virginicum Pigweed Amaranthus spp Smutgrass* Sporobolus indicus

Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

SPRAY EQUIPMENT

Apply VELPAR® L uniformly over the desired area using ground equipment only.

For ground application, use enough water for thorough coverage usually a minimum of 25 gallons per acre. The use of a surfactant may increase the potential for bermudagrass or bahiagrass injury.

USE PRECAUTIONS AND RESTRICTIONS BERMUDAGRASS/BAHIAGRASS

- For bermudagrass that may be grown in the states of ID, OR, UT or WA, determine the suitability of using VELPAR® L by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of VELPAR® L on bermudagrass.
- Use VELPAR® L only in stands of bermudagrass and bahiagrass established for at least one year. Do not treat newly sprigged or sodded areas.
- Some temporary discoloration of the bermudagrass or bahiagrass may occur after application.
- Treatment of mixed pastures containing forage species other than bermudagrass or bahiagrass may result in injury or mortality to the other forage species.
- Injury may result when desirable grasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
- Injury to or loss of desirable trees or other plants may result if VELPAR® L is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Severe crop injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.
- Livestock may be grazed immediately following a broadcast application of VELPAR® L at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.

^{*} Suppression may result with some of the giant (larger) smutgrass species.

PASTURE/RANGELAND BRUSH CONTROL

DuPontTM VELPAR® L may be used either broadcast or as a basal-soil treatment for the control of undesirable brush in pasture or rangeland.

APPLICATION INFORMATION

Apply VELPAR® L from late winter through summer, prebudbreak until new growth hardens off.

In areas where the soil remains frozen during the winter and spring rains are usually inadequate for soil activation, a fall or winter treatment may be applied before the soil freezes.

For broadcast rates needed to control the species below, see the **Forestry - Release**, **Use Rates** section.

BRUSH CONTROLLED

VELPAR® L is labeled for the control or suppression of the following brush species in pasture and rangeland:

Alder Ash Aspen Birch Blackgum Bay, sweet Cactus, cholla† Catclaw acacia Cedar, Eastern red Cherry, black Chinaberry' Deerbrush Dogwood, flowering* Elm, American Elm, Chinese Hackberry, common Hawthorn Hazel Hickory Huisache Juniper Locust Lotebush Manzanita, Greenleaf Maple, red Mesquite Mulberry Oaks Osage-orange Persimmon Plum, wild Poplar, balsam Poplar, yellow Privet Rose, multiflora Sassafras* Soapweed, small (yucca) Snowbrush (varnishleaf) Sourwood Sumac Sweetgum Tallow, Chinese

Waxmyrtle

Whitebrush

Willow

Alnus spp Fraxinus spp Populus spp Betula spp Nyssa sylvatica Magnolia virginiana Optunia imbricata Acacia greggii Juniperus virginiana Prunus serotina Melia azedarach Ceanothus integerrimus Cornus florida Ulmus Americana Ulmus parvifolia Celtis occidentalis Crataegus spp Corylus spp Carya spp Acacia farnesiana Juniperus spp Robinia spp Ziziphus obtusifolia Arctostaphylos patula Acer rubrum Prosopis glandulosa Morus spp Quercus spp Maclura pomifera Diospyros spp Prunus munsoniana Populus balsamifera Liriodendron tulipifera Ligustrum spp Rosa multiflora Sassafras albidum Yucca glauca Ceanothus velutinus Oxydendrum arboretum Rhus spp Liquidambar spp Sapium sebiferum Myrica cerifera

Aloysia gratissima

Salix spp

SPRAY EQUIPMENT AND APPLICATION TECHNIQUES

Basal (Soil) Undiluted - Apply VELPAR® L undiluted with an exact-delivery handgun applicator. This equipment delivers a thin stream of a predetermined volume when triggered. Apply VELPAR® L at the rate of 2–4 ml for each inch of stem diameter at breast height. Do not exceed 1/3 gallon of VELPAR® L per acre per year. Direct the treatment to the soil within 3 inches of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of VELPAR® L is needed per stem, make applications on opposite sides of the stem.

USE PRECAUTIONS AND RESTRICTIONS PASTURE/RANGELAND

- Injury to or loss of desirable trees or other plants may result if VELPAR® L is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Poor weed and brush control may result from the following:
 - Use on poorly drained sites.
 - Applications made when the soil is saturated with water and rain is imminent within 24 hours.
 - Applications to soils high in organic matter (greater than 5%).
- Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying VELPAR® L.
- Do not use VELPAR® L on frozen soils.
- Weed and brush control results depend on sufficient moisture to activate VELPAR® L.
- When VELPAR® L is applied as a basal soil treatment, there is no restriction on grazing by domestic animals nor on cutting surrounding vegetation for forage or hay.
- Livestock may be grazed immediately following a broadcast application of VELPAR® L at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of VELPAR® L at broadcast rates exceeding 4.5 pints 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.

Use on non-crop sites including industrial turfgrasses are not within the scope of the Worker Protection Standard.

When applied as a spray do not enter or allow worker entry into treated areas until sprays have dried.

^{*}Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

[†] For Cholla cactus (tree-type cactus) apply VELPAR® L at the rate of 4 milliliters (mls) of product for plants up to 2 feet tall. Apply 8 mls of product for Cholla cactus plants between 2 and 6 feet tall. For plants taller than 6 feet, apply 4 mls for each additional 2 feet of height. When treating plants it is desirable to make applications equally spaced around the plant.

APPLICATION INFORMATION

DuPontTM VELPAR® L is labeled for general weed and brush control as follows: uncultivated nonagricultural areas (such as, airports, highway, railroad and utility right-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).

NON-CROP SITES

VELPAR® L is labeled for control of many annual, biennial, and perennial weeds in noncrop, industrial sites.

APPLICATION TIMING

Apply VELPAR® L as a preemergence or postemergence spray when weeds are actively germinating or growing.

WEEDS CONTROLLED - USE RATE

VELPAR® L effectively controls the following weeds when applied at the use rates shown in industrial sites. When applied at lower rates, VELPAR® L provides short-term control of the weeds listed; when applied at higher rates, weed control is increased and extended. Use lower rate on coarse textured soils (sand to sandy loam). Use the higher rate on fine textured soils (clay loam to clay) and on soils high in organic matter.

1 - 2 1/2 Gallons/Acre

Barnyardgrass Bindweed, field* Bouncingbet* Bromegrass Buffalograss* Burdock Cocklebur Crabgrass Crown vetch Curly dock*

Dandelion, common* Dandelion, false* (spotted catsear) Dogbane*

Fiddleneck, tarweed Filaree

Fleabane, flax-leaved Goatsbeard vine (sweet briar)

Goldenrod Horseweed/marestail Lespedeza

Milkweed, common* Mustard, wild Nutsedge* Oats, wild* Orchardgrass *

Orchardgrass (seedling)

Oxalis **Paragrass** Parsnip, wild Pigweed

Purslane, common Quackgrass

Ryegrass, Italian (annual)

Smartweed Spurge Star thistle Trumpetcreeper*

Echinochloa crus-galli Convolvulus arvensis Saponaria officinalis Bromus spp Buchloe dactyloides

Arctium spp Xanthium spp Digitaria spp Coronilla varia Rumex crispus

Hypochaeris radicata Apocynum cannabinum Amsinckia lycopsoides

Taraxacum officinale

Erodium spp Conyza bonariensis Aruncus sylvester Solidago spp Conyza canadensis Lespedeza cuneata Asclepias syriacea

Sinapis arvensis Cyperus spp Avena fatua Dactylis glomerata Dactylis glomerata

Oxalis spp Panicum purpurascens Pastinaca sativa Amaranthus spp

Portulaca oleracea Agropyron repens Lolium multiflorum Polygonum spp

Euphorbia spp Centaurea spp Campsis radicans

3 - 4 Gallons/Acre

Aster, heath Aster ericoides Paspalum notatum Bahiagrass* Bermudagrass* Cynodon dactylon Blackberry Rubus spp Bluegrass Poa spp

Broomsedge Andropogon virginicus Camphorweed Heterotheca subaxillaris Canada thistle* Cirsium arvense Carrot, wild Daucus carota Chickweed Stellaria media

Clovers Trifolium spp Dewberry Rubus trivialis

Eupatorium capillifolium Dogfennel Fescue* Festuca spp

Fingergrass Digitaria ciliaris Foxtail Setaria spp Guineagrass Panicum maximum Lonicera spp Honeysuckle Conyza canadensis Horseweed/marestail Lantana camara Lantana Lettuce, prickly Lactuca serriola Natalgrass (red top) Rhynchelytrum repens Plantain Plantago spp

Ragweed, common Ambrosia elatior Sporobolus indicus Smutgrass* Spanishneedles Bidens bipinnata Vaseygrass Paspalum urvillei

SPECIFIC WEED PROBLEMS

Control of Canada Thistle in Crown Vetch - VELPAR® L is labeled for control of Canada thistle in established stands of crown vetch on noncrop sites. Make a single application of 3–5 pints of VELPAR® L from late spring through mid-summer, when thistle is actively growing prior to flowering. Do not use a surfactant. Some discoloration of the crown vetch foliage may occur after application.

SPRAY EQUIPMENT

Apply VELPAR® L uniformly over the desired area using ground equipment or helicopter. Do not apply more than 3 gallons per acre of VELPAR® L by air.

Use enough water for thorough coverage. For ground application this is usually 25 gallons per acre. Higher volumes may be needed to obtain uniform application with handgun equipment. For aerial applications (helicopter only) this usually a minimum of 5 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of VELPAR® L are used.

NON-CROP BRUSH CONTROL

VELPAR® L is labeled for the control of undesirable woody plants in noncrop sites.

APPLICATION INFORMATION

Apply VELPAR® L from late winter through summer, prebud break until new growth hardens off.

In areas where the soil remains frozen during the winter and spring rains are usually inadequate for soil activation, a fall or winter treatment may be applied before the soil freezes.

^{*} Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

^{**} Suppression may result with some of the giant (larger) smutgrass species.

BROADCAST

Apply 2 to 4 gallons of DuPontTM VELPAR® L per acre as coarse spray by ground equipment or 2 to 3 gallons per acre by air (helicopter only). Use enough water for thorough coverage. For ground equipment, usually a minimum of 25 gallons per acre. For aerial equipment, usually a minimum of 10 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of VELPAR® L are used.

BASAL (SOIL) SINGLE STEM TREATMENT

Undiluted - Apply VELPAR® L undiluted with an exact-delivery handgun applicator. This equipment delivers a thin stream of a predetermined volume when triggered. Apply VELPAR® L at the rate of 2 to 4 ml for each inch of stem diameter at breast height. Do not exceed 4 gallons of VELPAR® L per acre per year. Direct the treatment to the soil within 3 feet of the root collar of woody plants to be controlled. When treating large stems and when more than one delivery of VELPAR® L is needed per stem, make applications on opposite sides of the stem.

For multi-stemmed and low-growing brush that have stem diameters that are difficult to determine, apply VELPAR® L at the rate of 2 to 4 ml per 3 feet of canopy width. For tall, slender (columnar) brush types, apply 4 to 8 ml per 3 feet of height. Base the rate on whichever canopy dimension is greater (width or height).

When treating brush that requires more than a single 4 ml application of VELPAR® L, apply subsequent applications equally spaced around the plant. If treating brush on sloped sites, apply most of the VELPAR® L on the uphill side of the stem. If treating resprouts from brush disturbed by cutting or shredding, the rate of application must be proportional to the original tree size, not just the small regrowth of sprouts.

Diluted - Mix one gallon of VELPAR® L with 5 or more gallons of water. Apply 2 to 4 gallons of VELPAR® L per acre. Direct the spray to the soil in a serpentine pattern so that the swath on the soil is 6 to 12 inches wide at the base of the brush. Swaths must be 2 to 4 feet apart.

USE RATES

VELPAR® L is labeled for the control or suppression of the following species in non-crop sites. Use lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils(clay loam to clay) and on soils high in organic matter.

BRUSH CONTROLLED - USE RATE

2 – 4 Gallons/Acre

Alder Alnus spp Ash Fraxinus spp Aspen Populus spp Birch Betula spp Nyssa sylvatica Blackgum Magnolia virginiana Bay, sweet Cactus, cholla† Optunia imbricata Acacia greggii Catclaw acacia Cedar, Eastern red Juniperus virginiana Cherry, black Prunus serotina Chinaberry' Melia azedarach Deerbrush Ceanothus integerrimus Cornus florida Ulmus Americana Dogwood, flowering* Elm, American Elm, Chinese Ulmus parvifolia Hackberry, common Celtis occidentalis Hawthorn Crataegus spp Hazel Corylus spp Hickory Carya spp Huisache Acacia farnesiana Juniper Juniperus spp Robinia spp Ziziphus obtusifolia Locust Lotebush Manzanita, Greenleaf Arctostaphylos patula Maple, red Acer rubrum Mesquite Prosopis glandulosa Mulberry Morus spp Oaks Quercus spp Osage-orange Maclura pomifera Persimmon Diospyros spp Plum, wild Prunus munsoniana Poplar, balsam Populus balsamifera Poplar, yellow Liriodendron tulipifera Ligustrum spp Rosa multiflora Privet Rose, multiflora Sassafras* Sassafras albidum Soapweed, small (yucca) Yucca glauca Ceanothus velutinus Snowbrush (varnishleaf) Sourwood Oxydendrum arboretum

Sumac Rhus spp
Sweetgum Liquidambar spp
Tallow, Chinese Sapium sebiferum
Waxmyrtle Myrica cerifera
Whitebrush Aloysia gratissima
Willow Salix spp

- * Suppression a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.
- † For Cholla cactus (tree-type cactus) apply VELPAR® L at the rate of 4 milliliters (mls) of product for plants up to 2 feet tall. Apply 8 mls of product for Cholla cactus plants between 2 and 6 feet tall. For plants taller than 6 feet, apply 4 mls for each additional 2 feet of height.

When treating plants it is desirable to make applications equally spaced around the plant.

INDUSTRIAL TURFGRASS

VELPAR® L is labeled for selective weed control in established stands of bermudagrass and/or bahiagrass in noncrop areas.

APPLICATION TIMING

Make a single application of VELPAR® L per year when weeds are actively growing.

WEEDS CONTROLLED - USE RATE

VELPAR® L effectively controls the following weeds at the rates shown in industrial turf (unimproved only). Use a lower rate on coarse-textured soils (sand to sandy loam). Use the higher rate on fine-textured soils (clay loam to clay) and on soils high in organic matter.

Barley, little
Barnyardgrass
Dogfennel
Fescue
Lespedeza
Oxalis
Passionflower, maypop
Pepperweed, Virginia
Pigweed

Smutgrass*

Hordeum pusillum
Echinochloa crus-galli
Eupatorium capillifolium
Festuca spp
Lespedeza cuneata
Oxalis spp
Passiflora incarnate
Lepidium virginicum
Amaranthus spp
Sporobolus indicus

SPRAY EQUIPMENT

Apply DuPontTM VELPAR® L uniformly over the desired area using ground equipment only.

For ground application, use enough water for thorough coverage usually a minimum of 25 gallons per acre. The use of a surfactant is not advised.

USE PRECAUTIONS AND RESTRICTIONS ALL NON-CROP SITES

- For bermudagrass that may be grown in the states of ID, OR, UT or WA, determine the suitability of using VELPAR® L by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of VELPAR® L on bermudagrass.
- Injury to or loss of desirable trees or other plants may result if VELPAR® L is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Application spray drift may injure desirable plants.
- Poor weed and brush control may result from the following:
 - -Use on poorly drained sites.
 - -Applications made when the soil is saturated with water and rain is imminent within 24 hours.
 - -Applications to soils high in organic matter (greater than 5%).
- Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying VELPAR® L.
- Do not use VELPAR® L on frozen soils.
- Leave treated soil undisturbed to reduce the potential for VELPAR® L movement by soil erosion due to wind or water.
- Do not use VELPAR® L on lawns, driveways, tennis courts, or other residential or recreational areas.
- Weed and brush control results from spring applications depend on sufficient moisture to activate VELPAR® L.

- Livestock may be grazed immediately following a broadcast application of VELPAR® L at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried, and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60 days following application of VELPAR® L at broadcast rates greater than 4.5 pints and up to 3 gallons per acre.
- For VELPAR® L rates above 3 gallons per acre, do not cut treated vegetation for forage or hay nor graze domestic animals for 1 year following application.
- There are no grazing or haying restrictions for the directed basal-soil applications of VELPAR® L.
- Use VELPAR® L only in stands of bermudagrass and bahiagrass turfgrasses established for at least one year. Do not treat newly sprigged or sodded areas.
- Some discoloration of the bermudagrass or bahiagrass turfgrasses may occur after application.
- Injury may result when desirable turfgrasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
- Severe turfgrass injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.

ADDITIONAL INSTRUCTIONS, PRECAUTIONS, AND RESTRICTIONS FOR AGRICULTURAL AND NON-AGRICULTURAL USES

SPRAY TANK CLEAN OUT

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

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 drift management strategy is to apply the largest droplets which are consistent with pest control objectives. 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.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be

^{*} Suppression may result with some of the giant (larger) smutgrass species. Suppression – a visible reduction in plant population and/or plant vigor as compared to an untreated area and generally not accepted as control.

described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

CONTROLLING DROPLET SIZE - GROUND APPLICATION

- Nozzle Type Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.
- Pressure The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.
- Flow Rate/Orifice Size Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

CONTROLLING DROPLET SIZE - AIRCRAFT

- **Nozzle Type** Solid stream, or other low drift nozzles produce the coarsest droplet spectra.
- Number of Nozzles Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum
- Nozzle Orientation Orienting nozzles in a manner that
 minimizes the effects of air shear will produce the
 coarsest droplet spectra. For some nozzles such as solid
 stream, pointing the nozzles straight back parallel to the
 airstream will produce a coarser droplet spectrum than
 other orientations.
- **Pressure** Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed reduces spray drift potential. For some nozzle types such as solid streams, lower pressures can produce finer droplet spectra and increase drift potential.

BOOM LENGTH (AIRCRAFT), AND APPLICATION HEIGHT

- Boom Length (aircraft) Using shorter booms decreases drift potential. Boom lengths are expressed as a percentage of an aircraft's wingspan or a helicopter's rotor blade diameter. Shorter boom length and proper positioning can minimize drift caused by wingtip or rotor vortices.
- Application Height (aircraft) Applications made at the lowest height that are consistent with pest control objectives and the safe operation of the aircraft will reduce the potential for spray drift.
- Application Height (ground) Applications made at the lowest height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind, and reduce spray drift potential.

WIND

Drift potential is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a

constant direction. Many factors, including droplet size and equipment type also determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause 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. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground, or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. 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 minimizing drift potential, and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of spray drift.

DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by stoage and 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 may 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 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, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) 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 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, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) 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 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. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) 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 DuPontTM VELPAR® L containing hexazinone 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. Check for leaks after refilling and before transporting. **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, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) 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.

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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.

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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]

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