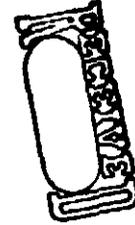


"VELPAR" HERBICIDE



Active Ingredient: Hexazinone
 [3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,
 4(1H,3H)-dione] 90%
 Inert Ingredients: 10%

U.S. Pats. 3,902,887 & 3,983,116 EPA Reg. No. 352-378

Keep Out of Reach of Children

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS**

WARNING! MAY IRRITATE EYES, NOSE, THROAT, AND SKIN:

AVISO: PRECAUCION AL USARIO:

Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente.

Avoid breathing dust or spray mist. Avoid contact with skin, eyes and clothing.

~~Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.~~

In case of contact, flush skin or eyes with plenty of water; for eyes, get medical attention.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes.

~~Refer to supplemental labeling for use restrictions to protect endangered species when used in forests, ranges and wetlands.~~

IMPORTANT

Wear goggles when use or handling conditions favor eye exposure or if eye discomfort is encountered.

Injury to or loss of desirable trees or other plants may result from failure to observe the following: Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of dry powder or spray to desirable plants. Keep from contact with fertilizers, insecticides, fungicides and seeds.

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

with comments
607 2 2 1987
352-378

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C. H. H. H.
of Camp*

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NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect, damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

STORAGE AND DISPOSAL

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

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

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

GENERAL INFORMATION

Du Pont "Velpar" Herbicide is a water-soluble powder to be mixed in water and applied as a spray for selective weed control in certain crops, Christmas trees, for selective weed and brush control in reforestation areas, and for non-selective weed and brush control on noncropland areas. It is non-volatile, non-flammable and non-corrosive to equipment.

"Velpar" is an effective general herbicide providing both contact and residual control of many annual and biennial weeds, woody plants and, except for Johnsongrass, is effective for control of most perennial weeds. It is absorbed through the roots and foliage.

Moisture is required to activate "Velpar" in the soil. Best results are obtained when weeds are less than 2 inches in height or diameter, soil is moist at time of application and 1/4 to 1/2 inch of rainfall occurs within 2 weeks after application. Foliar activity on weeds is most effective under conditions of high temperature (above 80°F), high humidity and good soil moisture. Foliar activity when vegetation is dormant, semi-dormant, or under stress may be reduced.

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

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GENERAL INFORMATION Cont'd.

~~On woody plants, symptoms usually appear within 3 to 6 weeks after sufficient application. However, the subsequent reformation may occur, and woody plants are killed.~~

The degree of control and duration of effect will vary with the amount of chemical applied, rainfall, temperature, weed species, soil texture and other conditions.

DIRECTIONS FOR USE

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

Du Pont "Velpar" Herbicide should be used only in accordance with recommendations on this label, or in separate published Du Pont recommendations available through local dealers.

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

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. ✓

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings can not be understood by workers. Warnings must include the following information: "WARNING. Area treated with "Velpar" on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of contact, flush skin or eyes with plenty of water; for eyes, get medical attention."

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

APPLICATION:

"Velpar" may be applied by ground equipment, and where permitted, aerial equipment. Use rates, minimum spray gallonage and other application information is described in the various use categories.

For best results, apply "Velpar" just before or soon after weed emergence. Do not apply to frozen or snow covered soil. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping, as injury to the crops may result.

RATE SELECTION:

Where a rate range is shown, use the higher levels of the dosage range under the following conditions; on hard-to-control species; on fine-textured soils; on soils containing more than 5% organic matter or carbon. Use the lower levels of the dosage range on coarse-textured soils; on soils low in organic matter. Refer to specific use categories for use rate ranges.

MIXING:

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. Make sure the volume of water is sufficient to completely dissolve the "Velpar" using the Water Temperature/Solubility Table as a guide. Use of concentrations greater than shown in the Water Temperature/Solubility Table may result in nozzle plugging and uneven distribution. ✓

<u>Water Temperature/Solubility Table</u>	
<u>Water Temperature</u> <u>Degrees F.</u>	<u>Solubility</u> <u>Max. Lbs. "Velpar" per 100 Gals.</u>
75	23
70	20
65	18
60	16
55	14
50	13
40	12

Add the proper amount of "Velpar" into a spray tank filled with the amount of water to be used and dissolve using sufficient agitation to prevent the powder from settling. Continue agitation for approximately 10 minutes or until the powder is dissolved. For application with a handgun sprayer, use sufficient water (50 to 200 gallons per acre) for thorough coverage. A surfactant may be added to improve wetting and/or contact activity.

*Five examples
species based
in application
to growing
crops
how much*

ALFALFA: (See Exhibit 3)

General Information:

Du Pont "Velpar" Herbicide is recommended for control of certain weeds in established hay alfalfa except in the states of Montana, North Dakota, South Dakota and Wyoming. It is also recommended for control of certain weeds in established seed alfalfa in the state of California.

Since the effect of "Velpar" on alfalfa varies with soil conditions, uniformity of application and environmental conditions, it is suggested that growers limit their first use to small areas.

How to Use:

Treat only stands of alfalfa established for one year or for one growing season, provided the alfalfa root system is well established and the crop is healthy, vigorous and not under stress from weather conditions, insect or disease damage. Do not use on seedling alfalfa nor on alfalfa-grass mixtures or on other mixed stands.

At elevations above 3,000 ft. do not use "Velpar" on alfalfa that has been established with a cover or nurse crop until the alfalfa has gone through two summer growing seasons.

Non-dormant and Semi-dormant Varieties:

Make a single application of "Velpar" at 1/2 to 1 1/2 pounds per acre during winter months when alfalfa plants are in the least active stage of growth.

Dormant Varieties:

Make a single application of "Velpar" at 1/2 to 1 1/2 pounds per acre after it becomes dormant and before new growth begins in the spring. ✓

Exception:

In certain northeastern* and midwestern* states, make a single application of 1/2 to 1 1/2 pounds per acre in the spring before new growth exceeds 2 inches in height or to stubble after cutting following hay removal and before regrowth exceeds 2 inches in height. Severe alfalfa injury may result following an after-cutting application if the regrowth is more than 2 inches high, or significant stubble is left after alfalfa cutting, and/or the air temperature is above 90°F.

Do not exceed 3/4 pounds per acre on alfalfa less than one year old.

Seed Alfalfa (California Only):

Do not use on fields with sandy loam or loamy sand soils having less than 1% organic matter.

Do not exceed 1/2 pound per acre on fields with sandy loam or loamy sand soils having between 1 and 2% organic matter.

Do not exceed 1/2 pound per acre on seed alfalfa that has been established for only one growing season.

If abnormally dry conditions exist following application, restrict first irrigation to not more than 1/2 acre inch of water.

Application and Spray Volumes:

Apply "Velpar" using a fixed boom power sprayer or aerial equipment. Before spraying, calibrate equipment to determine the quantity of water necessary to uniformly and thoroughly cover the vegetation. The sprayer must be properly calibrated to a constant speed and rate of delivery. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping to prevent crop injury.

Add the "Velpar" to a water-filled tank. Agitate for approximately 10 minutes, vigorously enough to prevent settling in order to dissolve the product. Apply in at least 20 gallons of water per acre by ground and 5 to 15 gallons of water per acre by air, but use at least 10 gallons of water for each 1 pound of "Velpar".

Use Rates:

Rate selection is to be based on soil texture and organic matter content as follows:

Soil Texture	"Velpar" (Pounds/Acre)		
	Soils With <1% Organic Matter	Soils With 1 to 5% Organic Matter	Soils With >5% Organic ¹ Matter
<u>Coarse</u>			
Loamy sand, sandy loam	1/2 to 3/4	1/2 to 3/4	1 to 1 1/2
<u>Medium</u>			
Loam, silt loam, silt, clay loam, sandy clay loam	1/2 to 3/4	3/4 to 1 1/2	1 to 1 1/2
<u>Fine</u>			
Silty clay loam, sandy clay, silty clay, clay	3/4 to 1 1/2	3/4 to 1 1/2	1 to 1 1/2

¹On soils high in organic matter (>5%), the effectiveness of "Velpar" can be significantly reduced and weed control may be unsatisfactory.

IMPORTANT Do not use on gravelly or rocky soils, exposed subsoils, hardpan, sand, poorly drained or alkali soils.

Crop injury, including mortality, may result in fields having restricted root growth due to non-uniform soil profiles such as gravel bases, hardpans, and clay lenses.

Weed Species Controlled:

"Velpar", when applied pre-emergence or early post-emergence to the weeds, will control the following species:

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1/4 to 1/2 pound/acre:

Tansy-mustard (Colorado and Kansas only)

1/2 to 1 pound/acre:

Annual bluegrass	Field pennycress	Seedling orchardgrass
Blue mustard	Filaree	Shepherdspurse
Cheatgrass (downy brome)	Flixweed	Spurry
Common chickweed	Jim Hill mustard	Tansy-mustard (Except Colorado & Kansas)
Common groundsel	London rocket	Wild radish
Dogfennel (mayweed)	Miners lettuce	Yellow rocket
English catchfly	Salsify	
Fiddleneck (tarweed)	Seedling foxtail barley	

1 to 1 1/2 pounds/acre:

Annual ryegrass	Iveyleaf speedwell	Purslane speedwell
Henbit		

1 to 1 1/2 pounds/acre will give partial control² of:

Common dandelion (spring only)	Prickly lettuce
False dandelion	Quackgrass
Foxtail (Setaria spp.)	Seedling alfalfa
Mexican tea	White cockle
Perennial bluegrass (i.e. Canada bluegrass)	

²Partial control is observable reduction in weed competition as compared to an untreated area. Degree of partial control can vary with soil type, environmental factors, and size of weeds at the time of application.

Late spring and between cutting applications of 1/2 to 1 pound/acre will control the following weeds:
(For northeastern & midwestern states only)

Common lambsquarters	Foxtail (Setaria spp.)
Crabgrass	Jimsonweed
Fleabane	Redroot Pigweed

Replanting:

Corn may be planted 12 months after the last treatment, except in areas of low rainfall (20 inches or less) where corn may be planted 12 months after the last treatment, provided the use rate did not exceed 3/4 pounds per acre. Do not plant treated areas to any other crop within two years after treatment as crop injury may result.

Do not plant seed alfalfa areas to any other crop within two years after treatment, as crop injury may result.

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NOTE:

Because crop injury may result, do not apply to actively growing alfalfa nor to stubble between cuttings, except as recommended for certain north-eastern* and midwestern* states. Do not apply to seedling alfalfa nor to alfalfa-grass mixtures; do not apply to alfalfa growing under stress from insect, disease, or winter injury, or showing symptoms of other stress conditions; do not use on hardpan, alkali or poorly drained soils. Extremely heavy rainfall or more than 1 inch of irrigation after application may result in crop injury or non-performance. Do not apply to snow covered or frozen ground. Do not use in low desert valleys in California or Arizona. Temporary alfalfa yellowing may occur following herbicide applications. Do not use in the states of Montana, North Dakota, South Dakota and Wyoming.

Do not graze or feed treated forage or hay to livestock within 30 days following application.

*Northeastern and Midwestern states are:

Connecticut
Delaware
Illinois
Indiana
Iowa
Kentucky
Maine
Maryland

Massachusetts
Michigan
Minnesota
Missouri
New Hampshire
New Jersey
New York

Ohio
Pennsylvania
Rhode Island
Vermont
Virginia
West Virginia
Wisconsin

CHRISTMAS TREE PLANTATIONS AND REFORESTATION AREAS:

See exhibit 4,5

General Information

Since the effect of "Velpar" on conifers varies with soils, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas.

Moisture is necessary to activate the herbicide. Best results are obtained when weeds are less than 2 inches in height or diameter and actively growing, soil is moist at time of application, and 1/4 to 1/2 inch of rainfall occurs within 2 weeks after application. If treatment is made during periods of active conifer growth, new-growth foliage may be injured.

NOTE:

Because injury to conifers may result: Do not use in nurseries, seedbeds or ornamental plantings; do not use on trees which show poor vigor because of insect, disease or winter injury, or show symptoms of other stress conditions; do not add surfactant if applied over the top of conifers; do not use on poorly drained soils. In addition, crop injury may result where severe winter stress, disease, or insect damage follows application, or heavy rains occur soon after application.

Conifer

APPLICATION INFORMATION:

Ground Applications East of the Rocky Mountains:

Apply as a broadcast spray in the spring prior to conifer bud break. If application is made after bud break, use direction spray equipment and prevent contact of conifer foliage or injury may result. Rates expressed are broadcast. 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.

Before spraying, calibrate equipment to determine the quantity of water necessary to uniformly and thoroughly cover the vegetation in a measured area to be treated. Use a fixed boom, power sprayer properly calibrated to a constant speed and rate of delivery. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping or injury to the conifer trees may result.

Apply in at least 25 gallons of spray per acre using ground equipment. Add the "Velpar" powder to a water-filled tank using agitation vigorous enough to prevent settling for approximately 10 minutes to dissolve the product. Use of concentrations greater than shown in the Water/Temperature Solubility Table may result in nozzle plugging and uneven application.

Aerial or Ground Applications West of the Rocky Mountains:

Select a spray volume that will insure a thorough and uniform application, at least 8 gallons of spray per acre by air and usually 25 gallons of spray per acre by ground but not less than 10 gallons of water for every 1 pound of "Velpar". Use mechanical or by-pass agitation to thoroughly mix the spray solution. ✓

USE RATE SELECTION:

TABLE 1

<u>Soil Texture*</u>	<u>First Year Plantings¹ Lbs. "Velpar" Per Acre²</u>	<u>Established Plantings Lbs. "Velpar" Per Acre²</u>
Gravelly or rocky soils, exposed subsoils, clay knobs, sand, or sandy soils with 85% or more sand	DO NOT USE	DO NOT USE
Loamy sand and sandy loam (50% - 85% sand)	1	1 - 1 1/4
Loam, silt loam, silt and sandy clay loam	1 - 1/4	1 1/4 - 1 3/4
Silty clay loam, clay loam, sandy clay, silty clay, and clay, soils having more than 5% organic matter**	1 1/4 - 1 1/2	1 3/4 - 2

*Do not use on any soil containing less than 1% organic matter; do not use on loamy sand or sandy loam with less than 2% organic matter.

**On soils high in organic matter, 5% or greater, the effectiveness of "Velpar" can be significantly reduced and weed control may be unsatisfactory.

¹First Year Plantations: Apply only to transplant stock that is 2 years old (2-0) or more. Allow at least two months after transplanting before applying "Velpar", then apply only if rainfall has settled the soil around the base of the transplants.

²Rates recommended are for trees that have been established for 1 year or more. Use of rates in excess of those specified for the soil texture may result in injury to the conifers.

East of the Rocky Mountains:

"Velpar" is recommended for control of certain weeds in Christmas tree plantations where the following species are grown:

Austrian pine
Grand fir

Scotch pine
Sitka spruce

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DO NOT USE FOR WEED CONTROL IN CHRISTMAS TREE PLANTATIONS IN THE STATES OF:

Connecticut
Delaware
Maine
Maryland
New Hampshire

New Jersey
~~New York~~
North Carolina
Pennsylvania
Rhode Island

Vermont
~~Virginia~~
West Virginia
Texas

Species Controlled:

Annual bluegrass
Barnyardgrass
Bentgrass
Bromegrass
Catsear

Common groundsel
Common ragweed
False dandelion
Fleabane
Foxtail

Oxeye daisy
Pennsylvania smartweed
Velvetgrass

Treatment Provides Partial Control of:

Curly dock
Dandelion
Fescue

Fireweed (willoweed)
Goldenrod
Horseweed

Orchardgrass
Ryegrass
Wild carrot

HOW TO USE: (See Application Information for Christmas Tree Plantations and Reforestation Areas)

Apply by ground equipment only.

West of the Rocky Mountains:

see Exhibit 5

"Velpar" is recommended for control of certain weeds in Christmas tree plantations where the following species are grown:

Austrian pine
Douglas fir
Grand fir

Noble fir
Ponderosa pine
Scotch pine

Sitka spruce

Species Controlled:

Annual bluegrass
Barnyardgrass
Bromegrass
False dandelion (catsear)

Fleabane
Common groundsel

Oxeye daisy
Velvetgrass

Treatment Provides Partial Control of:

Crabgrass
Curlydock
Dandelion
Fescue

Goldenrod
Heath aster
Orchardgrass
Ryegrass

Smartweed
Wild carrot
Willoweed (fireweed)

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HOW TO USE: (Refer to Application Information for Christmas Tree Plantations and Reforestation Areas)

"Velpar" may be applied by air or ground equipment.

Rainbelt (Areas of High Spring Rainfall):

For best results, apply in the spring and when weeds are actively growing, but prior to bud break on conifers. If application is made after bud break, use directional spray equipment so that spray does not contact new growth as injury may result.

Snowbelt (Areas of Low Spring Rainfall):

For best results, apply in the fall before soil freezes or in the spring in anticipation of rainfall. Weed control results from spring applications will be dependent on sufficient rainfall following treatment to activate "Velpar". Spring applications should be made after snow cover melts but before bud break occurs.

Selection of Use Rates:

See Table 1 for recommended rates.

Rate selection is based on soil texture. Do not use rates in excess of those listed for a particular soil texture, as injury to conifers may result. To determine soil texture and organic matter content, have soil samples classified by a reputable laboratory.

The 2 pound per acre treatment is needed to provide partial control of those species listed.

REFORESTATION AREAS:

"Velpar" is recommended for use in site preparation and conifer release areas. Refer to use categories for specific recommendations for conifer species, rate and timing, and species controlled.

NOTE: ~~Do not graze~~ treated areas with domestic animals for 30 days following application

EAST OF THE ROCKY MOUNTAINS: See exhibit 4

"Velpar" is recommended for control of certain weeds in reforestation areas where the following species are grown:

- | | | |
|---------------|----------------|--------------|
| Austrian pine | Loblolly pine | Scotch pine |
| Grand fir | Ponderosa pine | Sitka spruce |

NOTE: (See note regarding injury under General Information, Christmas Tree Plantations and Reforestation Areas ✓)

Species Controlled:

- | | | |
|------------------|------------------|------------------------|
| Annual bluegrass | Common groundsel | Oxeye daisy |
| Barnyardgrass | Common ragweed | Pennsylvania smartweed |
| Bentgrass | False dandelion | Velvetgrass |
| Bromegrass | Fleabane | Wild carrot |
| Catsear | Foxtail | |

Treatment Provides Partial Control of:

- | | | |
|------------|----------------------|--------------|
| Curly dock | Fireweed (willoweed) | Orchardgrass |
| Dandelion | Goldenrod | Ryegrass |
| Fescue | Horseweed | |

HOW TO USE:

Refer to "General Information for Christmas Tree Plantations and Reforestation Areas" for Use Instructions.

For selection of rates, see Rate Selection Table 1.

~~WESTERN ROCKY MOUNTAINS~~

see exhibit 6

Forestry Site Preparation, Conifer Release:

General Information:

For use in forestry site preparation and conifer release where the following species are grown:

Douglas fir
Grand fir
Jeffrey pine

Noble fir
Ponderosa pine

Sitka spruce
White fir

Species Controlled:

Herbaceous plants:

Annual bluegrass
Barnyardgrass
Brome grass
Catsear

Common groundsel
Fleabane
Foxtail

Oxeye daisy
Velvet grass
Wild carrot

Woody plants:

Deerbrush ceonothus
Greenleaf manzanita

Snowbrush ceonothus
(varnish leaf ceonothus)

Squawcarpet

Treatment provides partial control of:

Dandelion
Fescue
Goldenrod

Heath aster
Orchardgrass
Ryegrass

Smartweed
Willowweed (fireweed)

HOW TO USE:

"Velpar" may be applied by air or ground equipment. Select a spray volume that will insure a thorough and uniform application, at least 8 gallons of spray per acre by air and usually 20 to 25 gallons of spray per acre by ground, but not less than 10 gallons of water for each pound of "Velpar". Use mechanical or by-pass agitation to thoroughly mix the spray solution.

Apply as a pre-plant or post-plant broadcast or band application. For band applications, use proportionately less; for example, use 1/2 the broadcast rate when treating a 3 foot band where row spacing is 6 feet.

For herbaceous control, use 1 to 2 pounds per acre and 1 1/2 to 3 pounds per acre for brush control. 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. Refer to "Use Limitations" section for specific details.

HOW TO USE Cont'd.:

For brush control, applications should be made to brush seedlings or sprouts when less than 18 inches in height or diameter. "Velpar" results may be slow to appear and maximum results will be seen 12 to 24 months following the application.

TIMING:

Rainbelt (areas of high spring rainfall): For best results, apply in the late winter or spring when weeds are actively growing, but prior to budbreak on conifers. If application is made after bud break, use directional spray equipment so spray does not contact new growth, as injury may result.

Snowbelt (areas of low spring rainfall): For best results, apply in the fall before soil freezes, or in the spring in anticipation of rainfall. Weed control results from spring applications will be dependent on sufficient rainfall following treatment to activate "Velpar". Spring applications should be made after snow cover melts, but before bud break occurs.

USE LIMITATIONS:

1. Use on gravelly or rocky soils, exposed subsoils, clay knobs, sand or sandy soils with 85% or more sand may cause conifer injury or mortality and poor weed and brush control may occur.
2. Conifer injury or mortality may occur on any soil containing less than 1% organic matter.
3. On soils high in organic matter (greater than 5%) effectiveness of "Velpar" is reduced and results may be unsatisfactory.
4. Use on loamy sand or sandy loam with less than 2% organic matter may cause conifer injury except for Ponderosa and Jeffrey pine.
5. On first year plantations, apply "Velpar" (either pre-plant or post-plant) to transplant stock that is 2 years old (2-0) or more, 1 year old (1-0) for Ponderosa and Jeffrey pine.
6. When applying "Velpar" after transplanting, wait until rainfall has settled the soil around the base of the transplants before making the treatment.
7. Damage may occur to Incense cedar, Sugar pine and Giant Sequoia.
8. Heavy duff or slash present at time of application may result in poor weed or brush control.

NONCROPLAND AREAS - GENERAL WEED AND BRUSH CONTROL:

General Information:

"Velpar" is recommended for general weed and brush control in noncropland areas such as railroads, highways, utility and pipeline right-of-ways, petroleum tank farms, storage areas, industrial-plant sites, drainage ditch banks and other similar areas.

HOW TO USE:

For broadcast treatments using ground equipment, apply "Velpar" as a spray just before or soon after weed emergence. Do not apply to frozen or snow-covered soil. A surfactant may be added to improve wetting.

Use a sprayer properly calibrated to a constant speed and rate of delivery. For application with a handgun sprayer, use sufficient water (50 to 200 gallons per acre) for thorough coverage.

Short-term Control (up to 3 months):

Apply "Velpar" at the rate of 2 to 5 pounds per acre for control of many annual, biennial and perennial weeds. Species controlled: ✓

- | | | |
|---------------|-----------------|-------------------|
| Barnyardgrass | Fiddleneck | Paragrass |
| Bindweed* | Filaree | Pigweed |
| Bouncing bet* | Fleabane | Purslane |
| Bromegrass | Goatsbeard vine | Quackgrass |
| Buffalograss* | Goldenrod | Ryegrass |
| Burdock | Lespedeza | Smartweed |
| Cocklebur | Milkweed* | Spurge |
| Crabgrass | Mustard | Trumpet creeper* |
| Crown vetch | Nutsedge* | Wild oats*eeper* |
| Curly dock* | Orchardgrass* | Wild parsnip |
| Dandelion* | Oxalis | Wild star thistle |
| Dogbane* | | |

*Considered hard-to-kill.

Season-Long Control:

Apply "Velpar" at the rate of 6 to 12 pounds per acre. Species controlled:

- | | | |
|-----------------|-------------|------------------|
| Bahiagrass* | Dogfennel* | Natalgrass |
| Bermudagrass* | Fescue* | Plantain |
| Bluegrass | Fingergrass | Prickly lettuce |
| Broomsedge | Foxtail | Ragweed |
| Camphorweed | Guineagrass | Smutgrass |
| Canada thistle* | Heath aster | Spanish nettle |
| Chickweed | Honeysuckle | Vaseygrass |
| Clovers | Lantana | Wild blackberry* |
| Dewberry | Marestail | Wild carrot |

*Considered hard-to-kill.

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WOODY PLANT CONTROL:

Apply "Velpar" at the rate of 4 to 8 pounds per acre as a broadcast spray in at least 40 gallons of spray per acre between late winter and early summer. Species controlled:

- | | |
|-----------|--------|
| Hawthorne | Poplar |
| Hickory | Sumac |
| Maple | Willow |
| Oak | |

BERMUDAGRASS AND BAHIAGRASS IN NONCROPLAND AREAS IN S.E. AND S.W. STATES:

see exhibit 7

General Information:

"Velpar" is recommended for selective weed control in established stands of Bermudagrass and Bahiagrass in noncropland areas in the following states:

- | | | |
|----------|----------------|----------------|
| Alabama | Louisiana | South Carolina |
| Arkansas | Mississippi | Tennessee |
| Florida | Oklahoma | Texas |
| Georgia | North Carolina | |



Use only on noncropland areas such as railroads, highways, utility and pipeline right-of-ways, petroleum tank farms, storage areas, industrial plant sites, drainage ditchbanks and similar areas.

Since the effect of "Velpar" on bermudagrass and bahiagrass varies with soils, varieties, uniformity of application and environmental conditions, it is suggested that initial applications be limited to small areas.

HOW TO USE:

Use only in stands of bermudagrass and bahiagrass established for at least one year; do not treat newly sprigged or sodded areas as severe injury to desirable grasses may result. Temporary injury (chlorosis and leaf burn) to bermudagrass and bahiagrass can be expected after application. Plants will recover from this injury within several weeks if conditions are favorable for growth, while weeds will be killed.

Make a single application per year of 3/4 to 1 1/4 pounds per acre when soil is warm and moist and weeds are actively growing. Use the lower rate on coarse-textured soils (clay loam, clay) and on soils high in organic matter (over 5%). Apply with a fixed boom power sprayer properly calibrated to a constant speed and rate of delivery, using at least 25 gallons of spray per acre. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping, as injury to desirable grasses may result.

HOW TO USE Cont'd.:

Moisture is required to activate "Velpar" in the soil. Best results are obtained when weeds are less than 2 inches in height or diameter and actively growing, soil is moist at time of application, and 1/2 to 1 inch of rainfall occurs within 2 weeks after application. Foliar effects on weeds are most pronounced under conditions of high temperature (above 80° F) and high humidity. Symptoms usually occur within two weeks after application under these conditions, while 4 to 6 weeks may be required when weather is cool. If rainfall after treatment is insufficient to promote root uptake, weeds may recover from foliar effects and continue to grow. Extremely heavy rainfall after treatment may result in poor weed control and/or injury to desirable grass, especially if application is made to dry soil.

NOTE:

As injury to bermudagrass and bahiagrass may result, do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

PINEAPPLE:

See exhibit 8

General Information:

"Velpar" is recommended for use in pineapple for the control or suppression of many weed species.

Species Controlled:

- | | | |
|--------------|--------------|---------------|
| Ageratum | Dallisgrass | Morningglory |
| Balsam apple | Guinea grass | Oxalis |
| Castor bean | Jungle rice | Popolo |
| Crabgrass | Kao haole | Richardsonium |
| Crotalaria | Mauna loa | Vaseygrass |

HOW TO USE:

Use a sprayer properly calibrated to a constant speed and rate of delivery. Mix the proper amount of "Velpar" in water.

Intercrop Period:

Apply as a broadcast spray in 100 to 400 gallons of water per acre at the rate of 1/4 to 2 pounds per acre. For aerial application use at least 10 gallons water per acre.

Post mulch preplant:

Apply as a broadcast spray in 100 to 400 gallons of water per acre at the rate of 1/4 to 2 pounds per acre.

Post plant but before planting material starts active growth:

Apply as a broadcast spray in 100 to 400 gallons of water per acre at the rate of 1/4 to 2 pounds per acre.

Post plant after planting material starts to grow should be made when weed growth has escaped control by other herbicide applications.

Post plant crop harvest but prior to forcing first ratoon:

Apply as a broadcast spray in 100 to 400 gallons of water per acre at the rate of 1/4 to 2 pounds per acre.

Directed post-emergence (pineapple and weeds) interspace application:

Apply as directed spray 3 to 10 months after planting in 50 to 200 gallons of water per acre (broadcast basis), at the rate of 1/4 to 2 pounds per acre (broadcast basis) using a stroller boom or knapsack.

Directed spot treatments for perennial grasses before floral induction:

Spray perennial grasses post-emergence to wet (50 to 200 gallons per acre depending on size) with 1 to 2 pounds per 100 gallons of water as a spot treatment.

Do not exceed 6 pounds "Velpar" per acre per crop cycle.

Apply "Velpar" at 2 to 4 pounds per acre in 100 to 400 gallons of water for field edges and roadsides.

NOTE:

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



See exhibit 9

General Information:

Du Pont "Velpar" Herbicide is recommended for selective weed control in sugarcane. Since the effect of "Velpar" on sugarcane varies with soils, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas. Tolerance of new cane varieties to "Velpar" should be determined prior to adoption as field practice.

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Species Controlled:

Alexandergrass
 Amaranth (slender, smooth)
 American burnweed
 (fireweed)
 Balsam apple
 Barnyardgrass
 Carolina geranium
 Castorbean
 Chickweed
 Crabgrass (hairy,
 large, smooth)
 Crotalaria (fuzzy, showy)
 Cuphea (tarweed)
 Dallisgrass
 Fingergrass (radiate,
 swollen)
 Flora's paintbrush

Foxtail (bristly,
 yellow)
 Goosegrass
 Guineagrass
 Henbit
 Jobs tears
 Johnsongrass
 (from seed)
 Junglerice
 Lambsquarter
 Morningglory (hairy,
 threelobe)
 Mustard (wild)
 Oxalis
 Panicum (brownleaf,
 browntop, Texas,
 millet)

Paspalum (ricegrass,
 sour)
 Pigweed (common, smooth)
 Popolo
 Purslane
 Sandbur
 Sensitive plant (Hila
 Hila)
 Signalgrass (broadleaf)
 Sowthistle
 Spanishneedle
 Sprangletop
 Spurge (prostrate,
 graceful)
 Sunflower
 Vasegrass
 Waltheria (Hialoa)

HOW TO USE: (See Directions For Use, Application and Mixing Information)

Apply a single treatment per year using a fixed boom power sprayer, unless otherwise directed.

Florida:

Apply 1/2 to 1 pound "Velpar" per acre on sandy soils as a pre or directed post-emergence treatment using the lower rate on soils low in organic matter and the higher rate on soils high in organic matter. On muck soils apply 1 to 2 pounds of "Velpar" per acre pre-emergence or 1/2 to 1 pound per acre post-emergence, using the higher rate on larger weeds. Post-emergence applications should be directed to cover the weeds and soil while minimizing crop contact.

Hawaii:

Apply "Velpar" pre or post-emergence at the following rates for the indicated soil texture:

<u>Soil Texture</u>	<u>Pounds "Velpar" Per Acre</u>
Coarse-Textured Soils (sand, loamy sand, sandy loam)	1/2 to 1
Medium-Textured Soils (loam, silt loam, silty clay loam)	1/2 to 2
Fine-Textured Soils (clay, gray hydromorphic clay)	2 to 4

Use the higher levels of the recommended dosage ranges on soils high in organic matter. Do not apply more than twice the highest recommended rate for the indicated soil texture per crop cycle.

For pre-emergence use only, application may be made with aerial equipment using at least 10 gallons of spray per acre.

For spot treatments of emerged weeds, "Velpar" may be applied with a knapsack sprayer in concentrations of 1/2 to 2 pounds per 100 gallons of water. Apply in sufficient volume to thoroughly wet weed foliage, but do not exceed 100 gallons of spray per treated acre. Use the lower concentrations on coarse-textured soils which are low in organic matter and the higher concentrations on fine-textured soils which are high in organic matter.

Louisiana:

Apply 1/2 to 1 pound of "Velpar" per acre broadcast in the fall before sugarcane emerges or in the spring before active cane tillering begins. Use 1/3 of the above broadcast rates when band treating 1/3 of the area. Fall treatments of 1/2 to 3/4 pound per acre may be followed by a spring treatment of 1/2 to 3/4 pound per acre. Do not apply more than 1 1/2 pounds per year. Use the higher levels of the recommended dosage range on fine-textured soils.

Puerto Rico:

Apply 1 to 2 pounds of "Velpar" per acre pre-emergence to the cane or 1/2 to 1 pound per acre post-emergence. Use the lower rates on coarse-textured soils and the higher rates on fine-textured soils (high in clay or organic matter).

For spot treatment of emerged weeds, "Velpar" may be applied with a knapsack sprayer in concentrations of 1/2 to 1 pound per 100 gallons of water. Use the lower concentration on coarse-textured soils and the higher concentration on fine-textured soils. Apply a sufficient volume of spray to thoroughly wet weed foliage. Do not exceed 100 gallons of spray per treated acre.

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Texas:

Apply 1/2 to 1 pound of "Velpar" per acre. On plant cane, apply before cane emerges or as a directed layby treatment. On stubble cane, apply pre-emergence (up to the 3 leaf stage) or as a directed layby treatment. A pre or early post-emergence 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. Use the following rates for the soil texture:

<u>Soil Texture</u>	<u>Pounds "Velpar" Per Acre</u>	
	<u>Pre-emergence</u>	<u>Layby</u>
Coarse-textured soils* (sandy loam)	1/2	+ 1/2
Medium-textured soils (loam, silt loam)	3/4	+ 3/4
Fine-textured soils (clay loam)	1	+ 1

*With at least 2% organic matter.

NOTE:

Because injury to sugarcane may result: Do not use on cane which shows poor vigor because of insect, disease or winter injury, or shows symptoms of other stress conditions such as drought stress; do not add surfactant if applied over the top of cane; do not use on gravelly or rocky soils, thinly covered sub-soils, nor on 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. Do not apply over the top of actively growing cane. Applications during active cane growth should be directed to cover the weeds and soil while minimizing crop contact. Do not use on varieties which are known to be susceptible to weed killers. Do not plant any crop other than sugarcane within 18 months of the last application of "Velpar". Do not feed sugarcane forage to livestock.

Extremely heavy rainfall after application may result in poor weed control and/or crop injury; especially if the application is made to dry soil.

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