



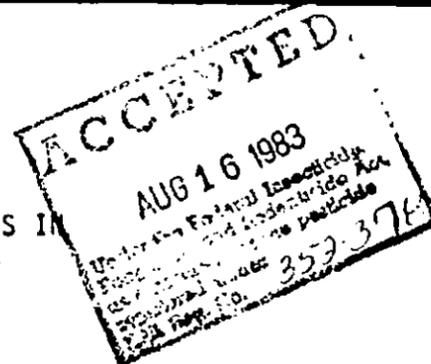
AGRICULTURAL BULLETIN



Velpar® Weed Killer
Christmas Tree Plantations
and Reforestation Areas
East of the Rocky Mountains

SUPPLEMENTAL LABELING
EPA REG. NO. 352-378

VELPAR® WEED KILLER
FOR CONTROL OF CERTAIN WEEDS IN
CHRISTMAS TREE PLANTATIONS
AND REFORESTATION AREAS



Du Pont "Velpar" Weed Killer is recommended for control of certain weeds in Christmas tree plantations where Austrian pine, Scotch pine, Grand fir, and Sitka spruce are grown. It is also recommended for use in reforestation areas where Austrian pine, Scotch pine, Loblolly pine, Ponderosa pine, Grand fir, and Sitka spruce are grown.

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, tender 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. Do not use for weed control in Christmas tree plantations in the state of Texas.

When used as directed, "Velpar" controls annual bluegrass, barnyardgrass, bentgrass, bromegrass, catsear, common groundsel, common ragweed, false-dandelion, fleabane, foxtail, oxeye daisy, Pennsylvania smartweed, velvetgrass and wild carrot. Treatment provides partial control of curly dock, dandelion, willowweed (fireweed), fescue, goldenrod, horseweed, orchardgrass and ryegrass. Rates expressed are broadcast. For band application, use proportionately less; for example, use 1/2 of the broadcast rates when treating a 3 ft. band where row spacing is 6 ft.



HOW TO USE

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

First Year Plantations: Apply only to transplant stock that is 2 years old (2-0) or more (1 year old for loblolly pine). 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. Apply at the following rates for the soil texture:

<u>Soil Texture*</u>	<u>Lbs. "Velpar" Per Acre**</u>
Gravelly or Rocky Soils, Exposed Subsoils, Clay Knobs, Sand, or Sandy Soils with 85% or more Sand	Do Not Use
Loamy Sand and Sandy Loam (50-35% Sand)	1
Loam, Silt Loam, Silt and Sandy Clay Loam	1 to 1-1/4
Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay and Clay	1-1/4 to 1-1/2

Established Plantations:

<u>Soil Texture*</u>	<u>Lbs. "Velpar" Per Acre**</u>
Gravelly or Rocky Soils, Exposed Subsoils, Clay Knobs, Sand, or Sandy Soils with 85% or more Sand	Do Not Use
Loamy Sand and Sandy Loam (50-85% Sand)	1 to 1-1/4
Loam, Silt Loam, Silt and Sandy Clay Loam	1-1/4 to 1-3/4
Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay and Clay	1-3/4 to 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.

** Use of rates in excess of those specified for the soil texture may result in injury to the conifers.

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.

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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 TABLE¹ may result in nozzle plugging and uneven application.

WATER TEMPERATURE/SOLUBILITY TABLE

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

IMPORTANT

BEFORE USING "VELPAR", READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABEL.

This bulletin contains new or supplemental instructions for use of this product which may not appear on package label. Follow the instructions carefully.

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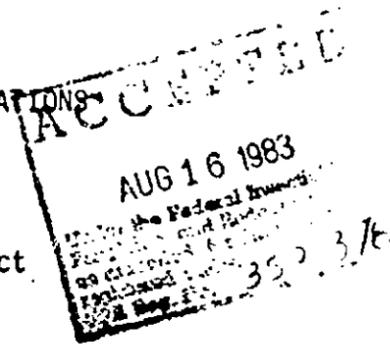
VELPAR® WEED KILLER
CHRISTMAS TREE PLANTATIONS
WEST OF THE ROCKY MOUNTAINS

SUPPLEMENTAL LABELING
EPA REG. NO. 352-378

VELPAR® WEED KILLER
FOR CONTROL OF CERTAIN WEEDS IN CHRISTMAS TREE PLANTATIONS

DIRECTIONS FOR USE

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



Du Pont Velpar® Weed Killer is recommended for control of certain weeds in Christmas tree plantations where Douglas Fir, Grand Fir, Noble Fir, Austrian Pine, Ponderosa Pine, Scotch Pine and Sitka Spruce are grown.

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.

NOTE: Because injury to conifers may result: Do not use "Velpar" 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. Conifer injury may result where severe winter stress, disease or insect damage follows application, or if heavy rains occur soon after application.

HOW TO USE

Application Technique:

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 sprayer with a pressure regulator properly calibrated to a constant speed of travel and rate of delivery. Avoid overlapping and shut-off spray booms while starting, turning, slowing or stopping, as injury to conifers may result.

Spray Volume and Equipment:

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

Herbaceous Weed Control

When used as directed, "Velpar" at rates of 1 to 1 1/2 lbs per acre will control weeds such as annual bluegrass, barnyardgrass, bromegrass, false dandelion (catsear), fleabane, common groundsel, oxeye daisy and velvetgrass.

Treatment at 2 lbs per acre provides partial control of crabgrass, curly dock, dandelion, fescue, goldenrod, heath aster, orchardgrass, ryegrass, smartweed, wild carrot and willowweed (fireweed).

Moisture is necessary for full activation of "Velpar". Best results are obtained when weeds are less than 2 inches in height or diameter, soil is moist at time of application and 1/2 to 1 inch of rainfall occurs within 2 weeks after application.

West of Cascades: For best results, apply in the spring 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.

East of Cascades: 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:

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.

SOIL TEXTURE*	CHRISTMAS TREE PLANTATIONS	
	1st Year Plantings+	Established Trees++
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 lb	1 to 1 1/4 lbs
Loam, silt loam, silt and sandy clay loam	1 to 1 1/4 lbs	1 1/4 to 1 3/4 lbs
Silty clay loam, clay loam, sandy clay, silty clay and clay, soils having more than 5% organic matter.***	1 1/4 to 1 1/2 lbs	1 3/4 lbs to 2 lbs

Rates expressed are for broadcast application. For band application, use proportionately less; for example, use 1/2 the broadcast rate when treating a 3 ft band where row spacing is 6 ft.

- * Do not use on soils 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.
- + Apply only to healthy transplant stock that is two years old (2-0) or more. When applying "Velpar" after transplanting, wait until rainfall has settled the soil around the base of the transplants before making treatment.
- ++ Rates recommended are for trees that have been established for 1 year or more.

IMPORTANT

BEFORE USING "VELPAR", READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABEL.

This bulletin contains new or supplemental instructions for use of this product which may not appear on package label. Follow the instructions carefully. This labeling must be in the possession of the user at the time of pesticide application.

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AGRICULTURAL BULLETIN



VELPAR® WEED KILLER
FORESTRY SITE PREPARATION &
CONIFER RELEASE
WEST OF THE ROCKY MOUNTAINS

SUPPLEMENTAL LABELING
EPA REG. NO. 352-378

VELPAR® WEED KILLER
FOR CONTROL OF CERTAIN WEEDS AND BRUSH SPECIES FOR
FORESTRY SITE PREPARATION & CONIFER RELEASE

DIRECTIONS FOR USE

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

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Du Pont Velpar® Weed Killer is recommended for control of certain weeds and brush species in forestry site preparation and conifer release operations where Douglas Fir, Grand Fir, Noble Fir, White Fir, Ponderosa Pine, Jeffery Pine and Sitka Spruce are grown.

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

NOTE: Because injury to conifers may result: Do not use "Velpar" 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. Conifer injury may result where severe winter stress, disease or insect damage follows application, or if heavy rains occur soon after application.

HOW TO USE

Application Technique: Before spraying, calibrate equipment to determine the uniform quantity of water necessary to uniformly and thoroughly cover the vegetation in a measured area to be treated. Use a fixed-boom sprayer with a pressure regulator properly calibrated to a constant speed of travel and rate of delivery. Avoid overlapping and shut-off spray booms while starting, turning, slowing or stopping, as injury to conifers may result.

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

Herbaceous Weed Control

When used as directed, "Velpar" controls weeds such as annual bluegrass, barnyardgrass, bromegrass, false dandelion (catsear), fleabane, common groundsel, foxtail, oxeye daisy, velvet grass and wild carrot. Treatment provides partial control of dandelion, fescue, goldenrod, heath aster, orchardgrass, ryegrass, smartweed, willowweed (fireweed).

Application Rates: Apply as a pre-plant or post-plant broadcast spray at rates of 1 to 2 lbs per acre. Use the lower rates on coarse-textured soils and soils low in organic matter; use the higher rates on fine-textured soils high in organic matter. Refer to "Use Limitations" section for specific details.

For band applications, use proportionately less; for example, use 1/2 the broadcast rate when treating a 3 ft band where row spacing is 6 ft.

Moisture is necessary to activate "Velpar". Best results are obtained when weeds are less than 2 inches in height or diameter, soil is moist at time of application and 1/2 to 1 inch of rainfall occurs within 2 weeks after application.

Timing:

West of Cascades (and other areas of high spring rainfall): For best results, apply in the spring 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.

East of Cascades (and other 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.

Brush Control

Among the brush species controlled are: deerbrush ceonothus, squawcarpet, snowbrush ceonothus (varnishleaf ceonothus) and greenleaf manzanita.

Application Rates: Use "Velpar" for brush control in forestry site preparation and conifer release where either Ponderosa Pine or Jeffrey Pine is the primary coniferous species. Apply "Velpar" at rates of 1 1/2 to 3 lbs per 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.

For best results, applications should be made to brush seedlings or sprouts when less than 18 inches in height or diameter. Applications may be made in the fall before the soil freezes or in the spring. Fall applications generally provide better results.

"Velpar" effects may be slow to appear and maximum results will be seen 12-24 months following the application.

Use Limitations:

1. Do not use on gravelly or rocky soils, exposed subsoils, clay knobs, sand or sandy soils with 85% or more sand.
2. Do not use on soils 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. Do not use on loamy sand or sandy loam with less than 2% organic matter (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 Pine and Jeffrey Pine).
6. When applying "Velpar" after transplanting, wait until rainfall has settled the soil around the base of the transplant before making the treatment.

IMPORTANT

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