

Reg # 62719-182

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DowElanco
9002 Purdue Road, Quad IV
Indianapolis, Indiana 46268-1189

Grazon* P+D
EPA REG. NO. 62719-182

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NOT RECOMMENDED
EPA REG. NO. 62719-182
Date 4/17/91

*Trademark of DowElanco
EPA Approval (12/07/90)

REVISIONS:
1) New Federal Registration.

Restricted Use Pesticide

May Injure (Phytotoxic) Susceptible Non-Target Plants For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.



DowElanco

Grazon* P+D

For Distribution and Use Only Within New Mexico, Oklahoma, Texas, Arkansas, Louisiana, Alabama, Georgia and Mississippi

For the control of broadleaf annual and perennial weeds, and certain woody species on rangeland and permanent grass pastures

Active Ingredients:	
picloram (4-amino-3,5-bis(trifluoromethyl)-	
acid) as the triisopropylamine salt	10.2%
2,4-dichlorophenoxyacetic acid as the	
triisopropylamine salt	39.6%
Inert Ingredients	50.2%
As an equivalent:	
picloram (4-amino-3,5-bis(trifluoromethyl)-	
acid) 5.7% (0.54 lb./gal.)	
2,4-dichlorophenoxyacetic acid 21.2% (2.0 lb./gal.)	

Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

WARNING AVISO:

Precautional usuario: No ingerir, no tocar, no usar este producto para nada que no sea para la aplicación autorizada.

Specialty Herbicide

Causes Substantial But Temporary Eye Injury • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Skin Reactions In Some Individuals • Harmful If Swallowed Or Absorbed Through The Skin

Do not get in eyes, on skin or on clothing. Wear goggles, face shield or safety glasses when handling. Wear chemical resistant gloves when handling concentrate. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

First Aid

In case of eye contact: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention promptly.

If swallowed: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

In case of skin contact: Flush skin with plenty of water and get medical attention if irritation persists.

Environmental Hazards

Do not runoff may adversely affect non-target plants. Do not apply directly to water or wetlands (swamps, bogs, marshes, and pastures). Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow run-off of spray to contaminate wells, irrigation ditches or any body of water used for irrigation or domestic purposes. Do not make applications when circumstances favor movement from treated site.

See additional Precautionary Statements in label booklet

Physical or Chemical Hazards

Combustible — Do not use or store near heat or open flame. Do not cut or weld container.

Refer to inside of label booklet for precautionary information, First Aid and Directions for Use including STORAGE AND DISPOSAL.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" in label booklet.

In case of an emergency, send person applying product to nearest hospital, physician or poison control center. Agricultural Chemicals Emergency Institute, 901 N. 10th Street, Des Moines, IA 50319.

EPA Reg. No. 101-10-0010

EPA Est. No. 101-10-0010

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Restricted Use Pesticide

May Injury (Phytotoxic) Susceptible Non-Target Plants. For retail sale to and use only by certified Applicators of persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statement.



Grazon[®] P+D

Range & Pasture Management

For Distribution and Use Only Within New Mexico, Oklahoma, Texas, Arkansas, Louisiana, Alabama, Georgia and Mississippi.

For the control of broad leaf annual and perennial weeds, and certain woody species on rangeland and permanent grass pastures.

Keep Out of Reach of Children

WARNING

Refer to inside of label booklet for precautionary information, First Aid and Directions for Use, including STORAGE AND DISPOSAL.

Notice: Read the entire label booklet before using this product. Read Warranty Disclaimer and Limitation of Remedies inside the label booklet.

DowElanco • Indianapolis, IN 46268 U.S.A.

Specialty Herbicide

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Precautionary Statements

Hazards to Humans and Domestic Animals
Keep Out of Reach of Children

WARNING AVISO:

Precaucion al usuario: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Causes Substantial But Temporary Eye Injury
• Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Skin Reactions In Some Individuals • Harmful If Swallowed Or Absorbed Through The Skin

Do not get in eyes, on skin or on clothing. Wear goggles, face shield or safety glasses when handling. Wear chemical resistant gloves when handling concentrate. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

First Aid

In case of eye contact: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention promptly.

If swallowed: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

In case of skin contact: Flush skin with plenty of water. Get medical attention if irritation persists.

Environmental Hazards

Drift or runoff may adversely affect non-target plants. Do not apply directly to water or wetlands (swamps, bays, marshes, and potholes). Do not contaminate water when disposing of equipment wash waters. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow runoff or spray to contaminate wells, irrigation ditches, or any body of water used for irrigation or domestic purposes. Do not make application when circumstances favor movement from treatment site.

Picloram is a chemical which can travel (seep or leach) through soil and under certain conditions has the potential to contaminate groundwater which may be used for irrigation and drinking purposes. Users are advised not to apply picloram where soils have a rapid to very rapid

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permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow or to soils containing sinkholes over limestone bedrock, severely fractured surfaces and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater. An aquifer is defined as "an underground, saturated, permeable, geologic formation capable of producing significant quantities of water to a well or spring. It is the ability of the saturated zone, or portion of that zone, to yield water which makes it an aquifer" (American Chemical Society, 1983).

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Physical or Chemical Hazards

Combustible — Do not use or store near heat or open flame. Do not cut or weld container.

General Information

Grazon P+D herbicide is a water soluble liquid product containing picloram and 2,4-D. Very small amounts can kill or damage many broadleaved plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

Use Grazon P+D herbicide in rangeland and permanent grass pastures to selectively control annual, biennial, and perennial herbaceous weeds and certain woody species, including, bitterweed, broom snakeweed, goldenrod, horsenettle, locoweed, Macartney and Multiflora rose, prickly lettuce, ragweeds (bur, common and western), thistles and many other species susceptible to 2,4-D.

Directions for Use

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

Read all Directions for Use carefully before applying.

Do not use for manufacturing or formulating. Do not apply this product through any type of irrigation system.

Use Grazon P+D herbicide only once per year. Maximum application rate is 1 gallon per acre per year (0.5 lb ae picloram).

STORAGE AND DISPOSAL

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

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Container Disposal: Do not reuse container. Triple rinse (or equivalent). 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.

Grazing Restrictions

Do not graze lactating dairy animals on treated areas within 7 days after application. Do not harvest grass cut from hay from treated areas for 30 days. Withdraw meat animals from treated forage at least 3 days before slaughter.

Broadcast Foliar Application (Ground or Aerial)

Apply in 10 to 20 gallons of total spray mixture per acre by ground and in a minimum of 2 gallons per acre or more for aerial application (unless otherwise specified). See "Mixing Directions" and Tables 1 to 4 for instructions on oil-water emulsion details. Good coverage is essential. Swath width should not exceed 1.5 times the wingspan of the aircraft.

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Woody Plants - Broadcast Use Recommendations

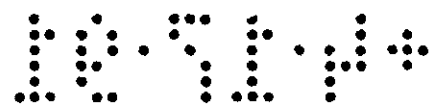
Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per Acre	Specific Directions
Macartney rose Multiflora rose (mowed and other disturbed stands within 3 years of disturbance)	1 gallon (0.5 + 2 lb ae)	Add an approved agricultural surfactant (or use an oil-water emulsion) and use higher spray volumes (20 to 25 gallons per acre by ground or a minimum of 5 gallons per acre or more by air). Avoid spraying earlier than 9 to 12 months following mowing or when plants have a high percentage of new growth. Repeat treatment when necessary. Swath width should be such to provide adequate overlap between swathes to facilitate good coverage. Product can be applied in the spring or fall if conditions are favorable for good plant growth.
Chinese tallowtree	1 gallon (0.5 + 2 lb ae)	Add an approved agricultural surfactant (0.5% vol/vol) (or use an oil-water emulsion) higher spray volumes (20 to 25 gallons per acre by ground or a minimum of 5 gallons per acre or more by air). The product may be applied in the spring or fall if conditions are favorable for good plant growth.
New regrowth brush suppression (mesquite and some oak sprouts)	3 to 4 pints (0.1875 + .75 to 0.25 + 1 lb ae)	Delay weed control applications of Grazon P+D until regrowth brush species present in the area to be treated has foliage.

Broadleaf Weeds - Broadcast Use Recommendations

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per Acre	Specific Directions
Bitter sneezeweed, buffalo bur, camphor weed, cocklebur, croton, marshelder (sumpweed), smartweed, sunflower, wild carrot, prickly lettuce, annual broomweed, bitterweed, bursage (bur ragweed), common ragweed, tasajillo, musk thistle, bull thistle	Early season (March-April) 1 to 2 pints (0.0625 + .25 to 0.125 + .5 lb ae)	Lower rates are effective only in very early season while weeds are no more than 2 inches tall and conditions are favorable for good plant growth.
	Mid to late season (May-June) 3 to 4 pints (0.1875 + .75 to 0.25 + 1 lb ae)	Apply when weeds range from 3 inches tall to early flowering.
Lanceleaf ragweed	2 to 4 pints (0.125 + .5 to 0.25 + 1 lb ae)	Use the lower rate in early season when weeds are no more than 2 inches tall and conditions are favorable for plant growth. Use the higher rate when weeds range from 3 inches tall to early flowering.
Bullnettle, silverleaf nightshade, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	2 to 4 pints (0.125 + .5 to 0.25 + 1 lb ae)	Nettles and silverleaf nightshade should be treated when the plants begin to flower in the spring. Yankeeweed should be sprayed when plants are 8 to 10 inches tall, upright prairie cone flower should be sprayed when plants are to 6 inches tall, before flowering.

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Broadleaf Weeds - Broadcast Use Recommendations (Cont.)

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per Acre	Specific Directions
Common goldenweed, Drummond's goldenweed (<i>Isocoma</i> spp.)	2 to 4 pints (0.125 + 5 to 0.25 + 1 lb ae)	Add 0.25 to 0.5% (volume/volume) of an approved agricultural surfactant or oil-water emulsion with appropriate emulsifier. Higher spray volumes are recommended (15 to 20 gal per acre by ground and 4 to 5 gal per acre by air). Apply in the spring (April-June) when good growing conditions produce substantial canopy development. Thorough coverage is essential.
Poisonous plants such as: Woolly loco, garbancillo (Wooton loco) and groundsel (<i>Senecio</i> spp.)	3 to 4 pints (0.1875 + .75 to 0.25 + 1 lb ae)	Apply in fall or winter under good moisture conditions. Since locoweeds are difficult to wet, add an approved agricultural surfactant at 0.25 to 0.5% (vol/vol) (or as an oil-water emulsion). Herbicide application may increase palatability of these poisonous plants. Therefore treated areas should not be grazed until the toxic plants dry up and lose their palatability.
Gray goldaster Narrowleaf goldaster	2 to 4 pints (0.125 + 0.5 to 0.25 + 1 lb ae)	Apply in the spring during the bud stage (pre bloom). Apply in oil- water emulsion. Thorough coverage is essential.

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High-Volume Foliar Applications

Spray to thoroughly wet foliage and stems. The
use of an approved agricultural surfactant is
recommended. Do not use more than 1 gallon of

Grazon P+D herbicide (0.5 lb of picloram) per
acre. To minimize spray drift, use lowest
possible pressure and coarse spray to achieve
good coverage. Keep sprays no higher than
brush tops. Nalco-Trol drift control agent or
equivalent is recommended. (See Table 5)

Woody Plants - High-Volume Foliar Use Recommendations

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per 100 Gallons	Specific Directions
Marcartney rose Multiflora rose	1 to 2 gallons (0.5 + 2 to 1 + 4 lb ae)	This technique can also be used for the control of large undisturbed clumps or for the control of small regrowth. Product can be applied in the spring or fall, if conditions are favorable for good plant growth.
Chinese tallow tree	2 gallons (1 + 4 lb ae)	May be treated in spring or fall if conditions are favorable for good plant growth.
Common goldenweed Drummond's goldenweed Poisonous plants such as Woolly loco, garbancillo (Wooton loco) and groundsel (<i>Senecio</i> spp.)	2 gallons (1 + 4 lb ae)	See "Broadcast Application" section for best application timing. Herbicide application may increase palatability of these poisonous plants. Treated areas should not be grazed until toxic plants dry up and lose their palatability.

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Woody Plants - High-Volume Foliar Use Recommendations (Cont.)

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per 100 Gallons	Specific Directions
Annual broadweed, bitterweed, bursage (bur ragweed), common ragweed, tasajillo, musk thistle, bull thistle, bitler sneezeweed, buffalo bur, camphorweed, cocklebur, croton, marsh elder (sumpweed), smartweed, sunflower, wild carrot, prickly lettuce, lanceleaf ragweed, bullnettle, silverleaf nightshade, upright prairie cone flower, western horse nettle, western ragweed, yarrowweed, gray goldaster, narrowleaf goldaster	1 gallon (0.5 + 2 lb. ac)	See "Broadcast Application" section for best application timing

Application Directions

Apply Grazon P+D herbicide at recommended rates in water alone or as an oil-water emulsion in a total volume of 2 or more gallons per acre by air or 10 to 25 gallons per acre by ground. To provide more complete wetting of the foliage, agricultural surfactants such as Ortho X-77 may be used at recommended rates. The use of a drift control additive such as Nalco-Trol is strongly recommended for drift reduction and improved deposition.

Mixing Instructions

Ground and Aerial Application - For Use With Water Alone

Start with about half the required amount of water in the spray tank. With agitation operating, add the required amount of Grazon P+D herbicide. If a surfactant is needed, it should be added as the remainder of the required water is added to complete the spray mix. When using a drift control additive, such as Nalco-Trol, follow the manufacturer's

directions carefully. Complete dispersion of the additive, such as obtained by passage through a pump with moderate to high shearing action, is essential for proper performance of the drift control product.

Ground Application - For Use With Water and Oil

Add oil to the total spray mix at a rate of 5 to 10% of the total mix, to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers and mixing procedures given below for aerial application.

Aerial Application - For Use With Water and Oil (Batch Mixing)

With continuous, vigorous agitation,

1. Add to the spray tank half the amount of water to be used.
2. Add the amount of Grazon P+D herbicide required for the total volume of spray being mixed.
3. Premix the required amount of oil with an emulsifier such as Sponto 712 or Triton X-100 brands, using 3 ounces of emulsifier per gallon of oil. Add the oil emulsifier premix to the spray tank.
4. Finally, add the remaining amount of water required to bring the spray batch to the desired total volume.
5. **Maintain agitation in the spray tank during application.**

Aerial Application - For Use With Water and Oil (Meter Mixing)

Water-oil sprays containing Grazon P+D herbicide may also be prepared using the spray tank "loading" pump to mix the ingredients while filling the tank. This procedure involves simultaneous mixing of the required amounts of

water, herbicide and oil emulsifier mixtures into the intake line of the pump during operation. Since emulsification is accomplished in the pump, it is important that a pump with moderate to high shearing action be used. For proper results, always introduce the water, herbicide premix into the intake line before introducing the oil emulsifier, or a thick, inert emulsion may result. Maintain agitation in the spray tank during application.

Note: Consult the following table for amounts of product, oil and water to mix 100 gallons of total spray to be applied by air at the rate of 2 or more gallons total volume per acre.

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Amount of Grazon P+D Herbicide To Make 100 Gallons Of Spray Solution (Oil-Water Mixture)

Total Spray Vol/Acre (Gallons)	Grazon P+D Rate/Acre (Pints)	Gallons			Emulsifier (oz)	N.T. (oz)	Total Spray Mix (Gallons)
		Grazon P+D	Oil	Water			
2	1	6.2	15.0	78.1	46.8	4.7	100
	2	12.5	14.6	72.9	43.8	4.4	100
	3	18.8	13.5	67.7	40.5	4.1	100
	4	25.0	12.5	62.5	37.5	3.8	100
3	1	4.2	16.0	79.8	48.0	4.0	100
	2	8.3	15.3	76.4	45.9	4.6	100
	3	12.5	14.6	72.9	43.8	4.4	100
	4	16.7	13.9	69.4	41.7	4.2	100
4	1	3.1	16.2	80.8	48.6	4.8	100
	2	6.3	15.6	78.1	46.8	4.7	100
	3	9.4	15.1	75.5	45.3	4.5	100
	4	12.5	14.6	72.9	43.8	4.4	100
10	1	1.25	10.0	88.8	30.0	5.3	100
	2	2.50	10.0	87.5	30.0	5.3	100
	3	3.75	10.0	86.3	30.0	5.2	100
	4	5.00	10.0	85.0	30.0	5.1	100
20	1	0.63	5.0	94.4	15.0	5.7	100
	2	1.25	5.0	93.8	15.0	5.6	100
	3	1.88	5.0	93.1	15.0	5.6	100
	4	2.50	5.0	92.5	15.0	5.6	100

*An emulsifier, such as Sponto 712 or Triton X-100 should always be added at the rate of 3 ounces per gallon of oil in the total spray mix. The oil-water ratio is 1:5 for all spray mixes.

**Amounts on Nalco-Trol (N.T.) are calculated on the basis of 6 oz of N.T./100 gal of water. Do not use more than 1 gallon of oil per acre.

Use Of Grazon P+D Herbicide With Liquid Fertilizer For Broadleaf Weed Control In Rangeland And Permanent Grass Pasture

Grazon P+D herbicide may be tank mixed with liquid fertilizers and used in foliar application for weed control and fertilization of rangelands and permanent grass pastures. Use liquid fertilizers at rates recommended by supplier or local Extension Service Specialist.

Begin with a compatibility test by pouring the spray component in the desired order and proportions into a clear glass jar before mixing in the spray tank. Use of a compatibility aid such as Unite or Compex is recommended to help obtain and maintain a uniform spray solution during mixing and application. **Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K fertilizer solutions or suspensions is more difficult and should not be attempted without first conducting a successful jar test. Agitation in the spray tank must be vigorous to compare with jar test agitation.**

Suggested Mixing and Application Procedure

With continuous vigorous agitation

1. Add half the amount of liquid fertilizer to the spray tank.
2. Add compatibility aid such as Unite or Compex at 1 quart per 100 gallons of total spray mix.
3. First add the amount of Grazon P+D needed for the total spray mixture. Mixing with N-P-K fertilizer solutions may be improved following the above procedure by premixing the

herbicide with water before adding to the spray tank. For Grazon P+D, premix 1 part herbicide with 25 to 30 parts water.

4. Add the remaining liquid fertilizer to produce the needed total spray volume.
5. Apply as soon as the spray is totally mixed, maintaining continuous, vigorous agitation from start of mixing through application without interruptions.

Application during very cold (near freezing) weather is not advisable.

Do not store the spray mixture.

Note: Do not use spray equipment for other application to land planted, or to be planted, to susceptible crops or desirable sensitive plants **unless** it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment.

Use Precautions

Use this product only as specified on this label. Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as promulgated by state or local authorities. Observe labels of other products used in tank mixtures and follow precautions and recommendations thoroughly.

Grazon P+D herbicide should not be applied in residential areas or near ornamental trees and shrubs. Untreated trees can occasionally be affected by root uptake of the herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Grazon P+D within the root zone of desirable trees, unless such injury can be tolerated.

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Do not make application when circumstances favor movement from treatment site.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not use on sub-irrigated land

Do not apply or otherwise permit Grazon P+D or sprays containing Grazon P+D to contact crops or other desirable broadleaf plants, including but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals and shade trees

Do not use grass or hay from treated areas for composting or mulching of susceptible broadleaf crops

Avoid injurious spray drift. Applications should be made to avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. To minimize spray drift:

1. Use nozzle pressures no greater than are required to obtain a proper spray pattern for adequate coverage of target plants
2. Apply as a coarse spray
3. Use nozzles designed for herbicide application that do not produce a fine droplet spray
4. Spray when wind velocity is low. Follow local state regulations. Avoid conditions which are conducive to air inversions.

When making applications near susceptible crops, spray drift may be further lessened by using a drift control system such as Microfoil, Thru-Valve boom (or equivalent) or a drift control agent such as Nalco-Trol (or equivalent). If a drift control additive is used, follow all use recommendations and precautions on the product label.

Ground Equipment: With ground equipment, spray drift may be lessened by keeping the spray boom as low as possible, by keeping the operating spray pressures at the manufacturers recommended minimum pressures for the specific nozzle types used (low pressure nozzles are available from spray equipment manufacturers). Do not apply this product with a mistblower. In hand-gun applications, spray drift may be minimized by selecting the minimum pressure that will provide adequate coverage (without forming a mist), by spraying no higher than brush tops.

Aerial Applications: With aircraft, drift can be lessened by using straight stream nozzles directed straight back, by using a spray boom no longer than 1/3 of the rotor or wing span of the aircraft, by using low pressure sprays, by using a drift control system or drift control additive. Do not use a thickening agent with the Microfoil or the Thru-Valve boom, or other drift control systems that cannot accommodate thick sprays.

Determine Air Movement and Direction Before Making Foliar Applications: Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movements, lapse corrections, or temperature inversions (stable air). If the

smoke layers or otherwise indicates a potential for hazardous spray drift, do not spray.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not spray pastures if the injury to existing forage legume component cannot be tolerated. Grazon P+D herbicide may injure or kill legume plants. Forage legumes may be less sensitive to the herbicide after the seed has been set and has hardened off. New legume seedlings may not be successful if made within one year of application.

Do not move treated soil to other areas or use it to grow plants if they are not registered for use with picloram until an adequate sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not transfer livestock from treated grazing areas onto broadleaf crop areas without first allowing 7 days of grazing on untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards, or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not mix with dry fertilizer.

Spray Equipment - Cleaning Instructions
To avoid injury to desirable plants, equipment used to apply Grazon P+D herbicide should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. At least three times, with water, and dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 min). Let the solution stand for several hours, preferable overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water recirculating and draining each time.
5. Nozzles and screens should be removed separately.

Warranty Disclaimer

DowFanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DOWFANCO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.); abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes); presence of other materials; the manner of application or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by Buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theory), shall be limited to, at DowElanco's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing; in no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the "Warranty Disclaimer" above and this "Limitation of Remedies" cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary, exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.

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NOTES

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Restricted Use Pesticide

May Injury (Phytotoxic) Susceptible, Non-Target Plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.



Grazon* P+D

Range & Pasture
Management

For Distribution and Use Only Within New Mexico, Oklahoma, Texas, Arkansas, Louisiana, Alabama, Georgia, and Mississippi.

For the control of broadleaf weeds and perennial weeds, and certain woody species on range land and permanent cropland pastures.

**Keep Out of Reach
of Children**

WARNING

It is to be used only on the crops and plants listed on the label. For use on other crops and plants, see the label for directions. **STORAGE AND DISPOSAL:**

Do not use if the label is torn or if the product is not properly stored. Do not use if the product is not properly stored. Do not use if the product is not properly stored.

DowElanco Laboratories, Inc. 40701 U.S.A.

Specialty Herbicide

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Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

WARNING AVISO:

Precaucion al usuario: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Causes Substantial But Temporary Eye Injury • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Skin Reactions In Some Individuals • Harmful If Swallowed Or Absorbed Through The Skin

Do not get in eyes, on skin or on clothing. Wear goggles, face shield or safety glasses when handling. Wear chemical resistant gloves when handling concentrate. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

First Aid

In case of eye contact: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention promptly.

If swallowed: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

In case of skin contact: Flush skin with plenty of water. Get medical attention if irritation persists.

Environmental Hazards

Drift or runoff may adversely affect non-target plants. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow run off or spray to contaminate wells, irrigation ditches or any body of water used for irrigation or domestic purposes. Do not make application when circumstances favor movement from treatment site.

Picloram is a chemical which can travel (seep or leach) through soil and under certain conditions has the potential to contaminate groundwater which may be used for irrigation and drinking purposes. Users are advised not to apply picloram where soils have a rapid to very rapid

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Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 62719-182

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permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater. An aquifer is defined as "an underground, saturated, permeable, geologic formation capable of producing significant quantities of water to a well or spring. It is the ability of the saturated zone, or portion of that zone, to yield water which makes it an aquifer" (American Chemical Society, 1983).

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Physical or Chemical Hazards

Combustible — Do not use or store near heat or open flame. Do not cut or weld container.

General Information

Grazon P+D herbicide is a water soluble liquid product containing picloram and 2,4-D. Very small amounts can kill or damage many broadleaved plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

Use Grazon P+D herbicide in rangeland and permanent grass pastures to selectively control annual, biennial, and perennial herbaceous weeds and certain woody species, including, bitterweed, broom snakeweed, goldenrod, horehound, locoweed, Macartney and Multiflora rose, prickly lettuce, ragweeds (bur, common and western), thistles and many other species susceptible to 2,4-D.

Directions for Use

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

Read all Directions for Use carefully before applying.

Do not use for manufacturing or formulating. Do not apply this product through any type of irrigation system.

Use Grazon P+D herbicide only once per year. Maximum application rate is 1 gallon per acre per year (0.5 lb as picloram).

STORAGE AND DISPOSAL

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

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Container Disposal: Do not reuse container. Triple rinse (or equivalent). 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.

Grazing Restrictions

Do not graze lactating dairy animals on treated areas within 7 days after application. Do not harvest grass cut from hay from treated areas for 30 days. Withdraw meat animals from treated forage at least 3 days before slaughter.

Insert 1.

Broadcast Foliar Application (Ground or Aerial)

~~Apply at 10 to 20 gallons per acre by ground and 2 to 4 gallons per acre by aerial application (unless otherwise specified). See "Mixing Directions" and Tables 1 to 4 for instructions on oil-water emulsion details. Good coverage is essential. Swath width should not exceed 1/2 times the wingspan of the aircraft.~~

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Woody Plants - Broadcast Use Recommendations

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per Acre	Specific Directions
Macartney rose Multiflora rose (mowed and other disturbed stands within 3 years of disturbance)	1 gallon (0.5 + 2 lb ae)	Add an approved agricultural surfactant (or use an oil-water emulsion) and use higher spray volumes (20 to 25 gallons per acre by ground or a minimum of 5 gallons per acre or more by air). Avoid spraying earlier than 9 to 12 months following mowing or when plants have a high percentage of new growth. Repeat treatment when necessary. Swath width should be such to provide adequate overlap between swathes to facilitate good coverage. Product can be applied in the spring or fall if conditions are favorable for good plant growth.
Chinese tallowtree	1 gallon (0.5 + 2 lb ae)	Add an approved agricultural surfactant (0.5% vol/vol) (or use an oil-water emulsion) higher spray volumes (20 to 25 gallons per acre by ground or a minimum of 5 gallons per acre or more by air). The product may be applied in the spring or fall if conditions are favorable for good plant growth.
New regrowth brush suppression (mesquite and some oak sprouts)	3 to 4 pints (0.1875 + .75 to 0.25 + 1 lb ae)	Delay weed control applications of Grazon P+D until regrowth brush species present in the area to be treated has foliage.

Broadleaf Weeds - Broadcast Use Recommendations

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per Acre	Specific Directions
Bitter sneezeweed, buffalo bur, camphor weed, cocklebur, croton, marshelder (sumpweed), smartweed, sunflower, wild carrot, prickly lettuce, annual broomweed, bitterweed, bursage (bur ragweed), common ragweed, lespedeza, musk thistle, bull thistle	Early season (March-April): 1 to 2 pints (0.0625 + .25 to 0.125 + .5 lb ae) Mid to late season (May-June): 3 to 4 pints (0.1875 + .75 to 0.25 + 1 lb ae)	Lower rates are effective only in very early season while weeds are no more than 2 inches tall and conditions are favorable for good plant growth Apply when weeds range from 3 inches tall to early flowering
Lanceleaf ragweed	2 to 4 pints (0.125 + .5 to 0.25 + 1 lb ae)	Use the lower rate in early season when weeds are no more than 2 inches tall and conditions are favorable for plant growth. Use the higher rate when weeds range from 3 inches tall to early flowering
Bullnettle, silverleaf nightshade, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	2 to 4 pints (0.125 + .5 to 0.25 + 1 lb ae)	Nettles and silverleaf nightshade should be treated when the plants begin to flower in the spring. Yankeeweed should be sprayed when plants are 8 to 10 inches tall, upright prairie cone flower should be sprayed when plants are to 6 inches tall, before flowering

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Broadleaf Weeds - Broadcast Use Recommendations (Cont.)

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per Acre	Specific Directions
Common goldenweed, Drummond's goldenweed (<i>Isocoma</i> spp.)	2 to 4 pints (0.125 + .5 to 0.25 + 1 lb ae)	Add 0.25 to 0.5% (volume/volume) of an approved agricultural surfactant or oil-water emulsion with appropriate emulsifier. Higher spray volumes are recommended (15 to 20 gal per acre by ground and 4 to 5 gal per acre by air). Apply in the spring (April-June) when good growing conditions produce substantial canopy development. Thorough coverage is essential.
Poisonous plants such as: Woolly loco, garbancillo (<i>Wootton loco</i>) and groundsel (<i>Senecio</i> spp.)	3 to 4 pints (0.1875 + .75 to 0.25 + 1 lb ae)	Apply in fall or winter under good moisture conditions. Since locoweeds are difficult to wet, add an approved agricultural surfactant at 0.25 to 0.5% (vol/vol) (or as an oil-water emulsion). Herbicide application may increase palatability of these poisonous plants. Therefore treated areas should not be grazed until the toxic plants dry up and lose their palatability.
Gray goldaster Narrowleaf goldaster	2 to 4 pints (0.125 + 0.5 to 0.25 + 1 lb ae)	Apply in the spring during the bud stage (pre-bloom). Apply in oil- water emulsion. Thorough coverage is essential.

Insert 2.

High-Volume Foliar Applications

Spray to thoroughly wet foliage and stems. The
use of an approved agricultural surfactant is
recommended. Do not use more than 1 gallon of

Grazon P+D herbicide (0.5 lb of picloram) per
acre. To minimize spray drift, use lowest
possible pressure and coarse spray to achieve
good coverage. Keep sprays no higher than
brush tops. Nuke. Trial drift control agent or
equivalent is recommended. (See Table 5)

Woody Plants - High-Volume Foliar Use Recommendations

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per 100 Gallons	Specific Directions
Martiney rose Multiflora rose	1 to 2 gallons (0.5 + 2 to 1 + 4 lb ae)	This technique can also be used for the control of large understory clumps or for the control of small regrowth. Product can be applied in the spring or fall if conditions are favorable for good plant growth.
Chinese tallow tree	2 gallons (1 + 4 lb ae)	May be treated in spring or fall if conditions are favorable for good plant growth.
Common goldenweed Drummond's goldenweed Poisonous plants such as: Woolly loco, garbancillo (<i>Wootton loco</i>) and groundsel (<i>Senecio</i> spp.)	2 gallons (1 + 4 lb ae)	See "Broadcast Application" section for best application timing. Herbicide application may increase palatability of these poisonous plants. Treated areas should not be grazed until toxic plants dry up and lose their palatability.

Insert 4.

Insert 3.

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Woody Plants - High-Volume Foliar Use Recommendations (Cont.)

Pest	Amount of Grazon P+D (Picloram + 2,4-D) Per 100 Gallons	Specific Directions
Annual broomweed, bitterweed, bursage (bur ragweed), common ragweed, tasajillo, musk thistle, bull thistle, bitter sneezeweed, buffalo bur, camphorweed, cocklebur, croton, marshelder (sumpweed), smartweed, sunflower, wild carrot, prickly lettuce, lanceleaf ragweed, bullnettle, silverleaf nightshade, upright prairie cone flower, western horsetrill, western ragweed, yankeeweed, gray goldaster, narrowleaf goldaster	1 gallon (0.5 + 2 lb ae)	See "Broadcast Application" section for best application timing.

Application Directions

Apply Grazon P+D herbicide at recommended rates in water alone or as an oil-water emulsion in a total volume of 2 or more gallons per acre by air or 10 to 25 gallons per acre by ground. To provide more complete wetting of the foliage, agriculture surfactants such as Ortho X-77 may be used at recommended rates. The use of a drift control additive such as Nalco-Trol is strongly recommended for drift reduction and improved deposition.

Mixing Instructions

Ground and Aerial Application - For Use With Water Alone

Start with about half the required amount of water in the spray tank. With agitation operating, add the required amount of Grazon P+D herbicide. If a surfactant is needed, it should be added as the remainder of the required water is added to complete the spray mix. When using a drift control additive, such as Nalco-Trol, follow the manufacturer's

directions carefully. Complete dispersion of the additive, such as obtained by passage through a pump with moderate to high shearing action, is essential for proper performance of the drift control product.

Ground Application - For Use With Water and Oil

Add oil to the total spray mix at a rate of 5 to 10% of the total mix, to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers and mixing procedures given below for aerial application.

Aerial Application - For Use With Water and Oil (Batch Mixing)

With continuous, vigorous agitation:

1. Add to the spray tank half the amount of water to be used.
2. Add the amount of Grazon P+D herbicide required for the total volume of spray being mixed.
3. Premix the required amount of oil with an emulsifier such as Sponto 712 or Triton X-100 brands, using 3 ounces of emulsifier per gallon of oil. Add the oil-emulsifier premix to the spray tank.
4. Finally, add the remaining amount of water required to bring the spray batch to the desired total volume.
5. Maintain agitation in the spray tank during application.

Aerial Application - For Use With Water and Oil (Meter Mixing)

Water-oil sprays containing Grazon P+D herbicide may also be prepared using the spray tank "loading" pump to mix the ingredients while filling the tank. This procedure involves simultaneous mixing of the required amounts of

water herbicide and oil emulsifier mixtures into the intake line of the pump during operation. Since emulsification is accomplished in the pump, it is important that a pump with moderate to high shearing action be used. For proper results always introduce the water-herbicide premix into the intake line before introducing the oil emulsifier, or a thick, invert emulsion may result. Maintain agitation in the spray tank during application.

Note: Consult the following table for amounts of product, oil and water to mix 100 gallons of total spray to be applied by air at the rate of 2 or more gallons total volume per acre.

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Amount of Grazon P+D Herbicide To Make 100 Gallons Of Spray Solution (Oil-Water Mixture)

Total Spray Vol/Acre (Gallons)	Grazon P+D Rate/Acre (Pints)	Gallons			Emulsifier† (oz)	N.T.11 (oz)	Total Spray Mix (Gallons)
		Grazon P+D	Oil	Water			
2	1	6.2	15.8	78.1	46.8	4.7	100
	2	12.5	14.8	72.9	43.8	4.4	100
	3	18.8	13.5	67.7	40.5	4.1	100
	4	25.0	12.5	62.5	37.5	3.8	100
3	1	4.2	16.0	79.8	48.0	4.0	100
	2	8.3	15.3	76.4	45.9	4.6	100
	3	12.5	14.6	72.9	43.8	4.4	100
	4	16.7	13.9	69.4	41.7	4.2	100
4	1	3.1	16.2	80.8	48.8	4.8	100
	2	6.3	15.6	78.1	46.8	4.7	100
	3	9.4	15.1	75.5	45.3	4.5	100
	4	12.5	14.6	72.9	43.8	4.4	100
10	1	1.25	10.0	88.8	30.0	5.3	100
	2	2.50	10.0	87.5	30.0	5.3	100
	3	3.75	10.0	86.3	30.0	5.2	100
	4	5.00	10.0	85.0	30.0	5.1	100
20	1	0.63	5.0	94.4	15.0	5.7	100
	2	1.25	5.0	93.8	15.0	5.6	100
	3	1.88	5.0	93.1	15.0	5.6	100
	4	2.50	5.0	92.5	15.0	5.6	100

†All emulsifiers, such as Sponto 712 or Triton X-100 should always be added at the rate of 3 ounces per gallon of oil in the total spray mix. The oil:water ratio is 1:5 for all spray mixes.
††Amounts on Nalco-Trol (N.T.) are calculated on the basis of 6-oz of N.T./100 gal of water. Do not use more than 1 gallon of oil per acre.

Insert 6

Use Of Grazon P+D Herbicide With Liquid Fertilizer For Broadleaf Weed Control In Rangeland And Permanent Grass Pasture

Grazon P+D herbicide may be tank mixed with liquid fertilizers and used in foliar application for weed control and fertilization of rangelands and permanent grass pastures. Use liquid fertilizers at rates recommended by supplier or local Extension Service Specialist.

Begin with a compatibility test by pouring the spray component in the desired order and proportions into a clear glass jar before mixing in the spray tank. Use of a compatibility aid such as Unite or Complex is recommended to help obtain and maintain a uniform spray solution during mixing and application. Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K fertilizer solutions or suspensions is more difficult and should not be attempted without first conducting a successful jar test. Agitation in the spray tank must be vigorous to compare with jar test agitation.

Suggested Mixing and Application Procedure

With continuous vigorous agitation.

1. Add half the amount of liquid fertilizer to the spray tank.
2. Add compatibility aid such as Unite or Complex at 1 quart per 100 gallons of total spray mix.
3. First add the amount of Grazon P+D needed for the total spray mixture. Mixing with N-P-K fertilizer solutions may be improved following the above procedure by premixing the

herbicide with water before adding to the spray tank. For Grazon P+D, premix 1 part herbicide with 25 to 30 parts water.

4. Add the remaining liquid fertilizer to produce the needed total spray volume.
5. Apply as soon as the spray is totally mixed maintaining continuous, vigorous agitation from start of mixing through application without interruptions.

Application during very cold (near freezing) weather is not advisable.

Do not store the spray mixture.

Note: Do not use spray equipment for other application to land planted, or to be planted, to susceptible crops or desirable sensitive plants unless it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment.

Use Precautions

Use this product only as specified on this label. Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as promulgated by state or local authorities. Observe labels of other products used in tank mixtures and follow precautions and recommendations thoroughly.

Grazon P+D herbicide should not be applied in residential areas or near ornamental trees and shrubs. Untreated trees can occasionally be affected by root uptake of the herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Grazon P+D within the root zone of desirable trees, unless such injury can be tolerated.

Do not make application when circumstances favor movement from treatment site.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not use on sub-irrigated land.

Do not apply or otherwise permit Grazon P+D or sprays containing Grazon P+D to contact crops or other desirable broadleaf plants, including but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals and shade trees.

Do not use grass or hay from treated areas for composting or mulching of susceptible broadleaf crops.

Avoid injurious spray drift. Applications should be made to avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. To minimize spray drift:

1. Use nozzle pressures no greater than are required to obtain a proper spray pattern for adequate coverage of target plants.
2. Apply as a coarse spray.
3. Use nozzles designed for herbicide application that do not produce a fine droplet spray.
4. Spray when wind velocity is low. Follow local state regulations. Avoid conditions which are conducive to air inversions.

When making applications near susceptible crops, spray drift may be further lessened by using a drift control system such as Microfoil, Thru-Valve boom (or equivalent) or a drift control agent such as Nalco-Trol (or equivalent). If a drift control additive is used, follow all use recommendations and precautions on the product label.

Ground Equipment: With ground equipment, spray drift may be lessened by keeping the spray boom as low as possible; by keeping the operating spray pressures at the manufacturers recommended minimum pressures for the specific nozzle types used (low pressure nozzles are available from spray equipment manufacturers). Do not apply this product with a mistblower. In hand-gun applications, spray drift may be minimized by selecting the minimum pressure that will provide adequate coverage (without forming a mist); by spraying no higher than brush tops.

Aerial Applications: With aircraft, drift can be lessened by using straight stream nozzles directed straight back; by using a spray boom no longer than $\frac{1}{2}$ of the rotor or wing span of the aircraft; by using low pressure sprays; by using a drift control system or drift control additive. Do not use a thickening agent with the Microfoil or the Thru-Valve boom, or other drift control systems that cannot accommodate thick sprays.

Determine Air Movement and Direction Before Making Foliar Applications: Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movements, lapse conditions, or temperature inversions (stable air). If the

smoke layers or otherwise indicates a potential for hazardous spray drift, do not spray.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not spray pastures if the injury to existing forage legume content cannot be tolerated. Grazon P+D herbicide may injure or kill legume plants. Forage legumes may be less sensitive to the herbicide after the seed has been set and has hardened off. New legume seedlings may not be successful if made within one year of application.

Do not move treated soil to other areas or use it to grow plants if they are not registered for use with picloram until an adequate sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not transfer livestock from treated grazing areas onto broadleaf crop areas without first allowing 7 days of grazing on untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not mix with dry fertilizer.

Spray Equipment - Cleaning Instructions
To avoid injury to desirable plants, equipment used to apply Grazon P+D herbicide should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. At least three times with water, and dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 min). Let the solution stand for several hours, preferable overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water recirculating and draining each time.
5. Nozzles and screens should be removed separately.

Warranty Disclaimer

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DOWELANCO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Amendments

- 1) Revised spray volume recommendations for ground and aerial applications.
- 2) Added marshelder, dogtunnel, curlydock and pricklypear cactus to directions for broadcast use.
- 3) Added flameleaf sumac, honeylocus and pricklypear cactus to directions for high volume foliar.
4. Added mixing instructions for 1 gpa spray volume.

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Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by Buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

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Insert 2.
Broadleaf Weeds - Broadcast Use Recommendations

Pest	Amount of Grazon P+D (Picloram + 2,4-D) per acre	Specific Directions
Marshelder (sumpweed)	Early Season (March - April) 3 pints	Use the higher recommended total volume (air or ground) and apply when weeds are less than 6" tall. Older plants require increased rates. Thorough plant coverage is critical to good control.
Dogfennel (cypressweed)	2 - 4 pints	Apply when plants are from 6" to 24" tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
Curlydock	1 - 2 pints	Early season prior to bolting.
	3 to 4 pints	Mid-to-late season after bolting and flowering
Pricklypear cactus	1 gallon	Ground broadcast in the spring or early summer to obtain broad spectrum broadleaf weed control in addition to pricklypear control.

Insert 3.**Woody Plants - High Volume Follar Use Recommendations**

Pest	Amount of Grazon P+D (Picloram + 2,4-D) per 100 gallons	Specific Directions
Flameleaf sumac Honeylocust	1 gallon plus 1 to 2 quarts surfactant	Spray to thoroughly wet foliage in the spring when leaves are mature and fully expanded.

Insert 4.**Broadleaf Weeds - High Volume Follar Use Recommendations**

Pest	Amount of Grazon P+D (Picloram + 2,4-D) per 100 gallons	Specific Directions
Pricklypear cactus	2 gallons plus 1 to 2 quarts surfactant	Spray to wet all pads to runoff. Water soluble dye may be added to detect coverage. Individual plant applications can be made throughout the year.

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(Grazon P+D Inserts Continued)

Insert 5.

Total Spray Vol/Acre Gallons†	Grazon P+D Rate/Acre (Pints)	Gallons			Emulsifier††† (oz)	Nalco-Trol ††††	Total Spray Mix (Gallons)
		Grazon P+D	Oil††	Water			
1	1	12.5	14.6	72.9	43.8	4.7	100
	2	25.0	12.5	62.5	37.5	3.8	100
	3	37.5	10.4	52.1	31.3	3.1	100
	4	50.0	8.3	41.5	24.9	2.5	100

Insert 6.

†Attention: When using lower spray volumes for aerial application, proper calibration of nozzles, proper flagging (no automatic flaggers), appropriate swath width (no more than 1.25 x wing span), and overlap are critical to achieving good performance. Failure to adhere to these guidelines may result in lack of efficacy.

††Aerial application: Use a 1:5 oil:water emulsion, with a recommended emulsifier such as Sponto 712 or Triton X-100 at a rate of 3 ounces per gallon of oil used. Ground application: Use a maximum of 1 gallon of oil per acre.

†††Use a recommended emulsifier, such as Sponto 712 or Triton X-100 at a rate of 3 ounces per gallon of oil used.

††††Amounts of Nalco-Trol are calculated on the basis of 6 oz of Nalco-Trol per 100 gallons of water.

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