

MAR 8 2001

Mr. J. Robert Peterson, Ph.D.
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268-1054

Dear Mr. Peterson:

SUBJECT: Label Amendment Removing Geographical Use Restriction
Grazon* P+D
EPA Registration No. 62719-182
Your Application Dated February 23, 2001

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable provided you make the following change:

1. On page 9 in item 4 under the paragraph which begins "Avoid injurious spray drift", correct the last sentence to read as follows:

"Avoid application under conditions which are conducive to air inversions or conditions of atmospheric temperature inversion."

This labeling supersedes previously accepted labeling for the subject product. A stamped copy is enclosed for your records. Submit one copy of the final printed labeling before you release the product for shipment.

Sincerely yours,



Daniel C. Kenny
Acting Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

RD:STANTON:PM Team 23:Rm. 239:CM-2:305-5218:Disk #14:grazonp + d.let

CONCURRENCES

SYMBOL >	7505C							
SURNAME >	S. Stanton							
DATE >	Mar 8, 2001							

[Base Label]

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.

(logo) Dow AgroSciences LLC

Grazon* P+D

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

Active Ingredients:

picloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt	10.2%
2,4-dichlorophenoxyacetic acid, triisopropanolamine salt	39.6%
Inert Ingredients	50.2%
Total	100.0%

Acid equivalents:

picloram: 4-amino-3,5,6-trichloropicolinic acid - 5.7% - 0.54 lb/gal
2,4-dichlorophenoxyacetic acid - 21.2% - 2 lb/gal

ACCEPTED
with **COMMENTS**
In EPA Letter Dated:
MAR 8 2001
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
62719-182

Keep Out of Reach of Children

DANGER PELIGRO

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

Precautionary Statements

Hazards to Humans and Domestic Animals

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed Or Inhaled

Do not get in eyes or on clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride (PVC), or Viton
- Shoes plus socks
- Protective eyewear
- **For containers of over 1 gallon, but less than 5 gallons:** Mixers and loaders who do not use a mechanical system (such as probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to other required PPE.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Engineering Controls

For containers of 5 gallons or more: Do not open pour product from this container. A mechanical system (such as probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Hold eyelids open and flush with steady gentle stream of water for 15 minutes. Get medical attention.

If swallowed: Call a physician or Poison Control Center. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Environmental Hazards

This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when 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 known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

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

Do not use or store near heat or open flame.

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Refer to label booklet for 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" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-182

EPA Est. 464-MI-1

*Trademark of Dow AgroSciences LLC
Dow AgroSciences LLC • Indianapolis, IN 46268 USA

Specialty Herbicide

Net Contents __ gal

(Label booklet cover):

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.

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Active Ingredients:

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triisopropanolamine salt 10.2%
- 2,4-dichlorophenoxyacetic acid,
triisopropanolamine salt 39.6%

Inert Ingredients 50.2%
 Total 100.0%

Acid equivalents:

- picloram: 4-amino-3,5,6-trichloropicolinic acid - 5.7% - 0.54 lb/gal
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Engineering Controls

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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

Do not use or store near heat or open flame.

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 apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications on rangeland and permanent grass pastures, do not allow worker entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

Storage and Disposal

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

Storage: If exposed to subfreezing temperatures (below 32° F), the product should be warmed to at least 40° F and agitated thoroughly before using.

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.

Container Disposal for Refillable Containers: Replace the dry disconnect cap, if applicable, and seal all openings which have been opened during use. Return the empty container to a collection site designated by Dow AgroSciences. If the container has been damaged and cannot be returned according to the recommended procedures contact the Dow AgroSciences Customer Service Center at 1-800-258-3033 to obtain proper handling instructions.

General Information

Grazon* P+D herbicide is a water soluble liquid product containing picloram and 2,4-D. Use Grazon P+D in rangeland and permanent grass pastures to selectively control many annual, biennial, and perennial broadleaf 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.

Herbicidal effects of Grazon P+D occur primarily from uptake by plant foliage and translocation throughout the plant, however, secondary herbicidal activity may occur from soil uptake of picloram. Very small amounts can kill or damage broadleaf plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

General Use Precautions and Restrictions

Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as required by state or local regulations. When used in tank mix combination with other products, follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used.

Maximum Use Rates: Total use of Grazon P+D must not exceed 4 quarts per acre per annual growing season. Repeat treatments may be applied as necessary, but total use must not exceed 4 quarts per acre per annual growing season.

Grazing Restrictions: Do not allow lactating dairy animals to graze treated areas within 7 days after application. Do not harvest grass cut for hay from treated areas for 30 days after application. Meat animals must be withdrawn from treated forage at least 3 days before slaughter. There are no other grazing restrictions for non-lactating dairy animals or other livestock.

Grazon P+D should not be applied in residential areas or near ornamental trees and shrubs.

Untreated trees can 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 area occupied by roots of desirable trees, unless such injury can be tolerated.

On areas treated with this product, do not rotate to crops intended for food or feed use, other than range or pasture grasses, wheat, barley or oats not underseeded with a legume, do not move treated soil, or use treated soil for growing other plants until soil residues of picloram are no longer detectable as indicated by an adequately sensitive bioassay or chemical test.

Do not spray pastures if the injury to existing forage legumes cannot be tolerated. Grazon P+D may injure or kill legume plants. Forage legumes may be less sensitive to the herbicide after the seed has set and plant growth is mature. Seeding of legumes may not be successful if made within one year of application.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth.

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 grass or hay from treated areas or manure from animals being fed treated forage or hay for composting or mulching of desirable, susceptible 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.

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 make application when circumstances favor movement from treatment site.

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 application under conditions of atmospheric temperature inversion.

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 Application: Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. [This information is advisory in nature and does not supersede mandatory label requirements.]

Aerial Drift Reduction Advisory

Information On Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produced larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature And Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

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

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.

Cleaning Instructions for Spray Equipment

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

1. Rinse and flush application equipment thoroughly after use. Flush the entire system 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.

Mixing Instructions

Ground or 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. 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, carefully follow the manufacturer's directions. Complete dispersion and uniform mixing is essential to proper performance of drift control additives. This can be aided by thorough circulation through a mixing pump with moderate to high shearing action.

Use With Oil/Water Emulsions

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

Aerial Application: Use oil and water in the spray mixture in a 1:5 ratio (1 part oil to 5 parts water), up to a maximum of 1 gallon of oil per acre using mixing procedures given below.

Mixing Instructions for Oil/Water Emulsions (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 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, using the manufacturer's recommended rate 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.**

Mixing with Liquid Fertilizer for Broadleaf Weed Control in Rangeland and Permanent Grass Pastures

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

Compatibility with Liquid Fertilizer: Prior to large scale batch mixing, conduct a "jar test" for spray mixture compatibility by mixing each component in the required order and proportion in a clear glass jar. Close the jar and agitate the mixture until evenly dispersed. Use of a compatibility agent is indicated if components of the mixture do not disperse readily or do not remain dispersed after mixing. 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 by premixing Grazon P+D with water (1 part Grazon P+D to 25-30 parts water) before adding to the spray tank.
4. Add the remaining liquid fertilizer to produce the needed total spray volume.
5. Apply as soon as mixing is complete, maintaining continuous, vigorous agitation throughout mixing and application without interruption.

Application during very cold (near freezing) weather is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.

Do not store the spray mixture.

Note: Do not use spray equipment for application of other products 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. See "Cleaning Instructions for Sprayer Equipment" General Use Precautions section of this label.

Application Directions

Broadcast Foliar Application (Ground or Aerial)

Unless otherwise specified, apply in water alone or in an oil-water emulsion in a total spray volume of 5 to 40 gallons per acre using ground equipment or 1 or more gallons per acre by aerial application. Use of the lower total spray volume with ground equipment is recommended primarily where Grazon P+D is applied simultaneously with liquid fertilizer. Good coverage is essential. For aerial application, swath width should not exceed 1 1/4 times the wingspan of the aircraft.

To provide more complete wetting and coverage of the foliage, a non-ionic surfactant may be used at recommended rates. The use of a drift control additive is recommended for drift reduction and improved deposition.

Recommended Uses

Broadcast Application

1-2 Pints/Acre or 3-4 Pints/Acre: Apply at the rate indicated by stage of growth to control the following woody plants or broadleaf weeds:	
Weed Species	Specific Use Directions
annual broomweed, bitter sneezeweed, bitterweed, buffalo bur, bull thistle, bursage (bur ragweed), camphor weed, cocklebur, common ragweed, croton, horseweed, lambsquarters, musk thistle, pigweed, prickly lettuce, smartweed, sunflower, tasajillo, wild carrot	<p>Early Season: Apply in early to mid spring when weeds are less than 3 inches tall. Rates in the lower end of the rate range are effective only when weeds are less than 2 inches tall and conditions are favorable for plant growth.</p> <p>Mid to Late Season: Apply at a rate of 3-4 pt/acre in late spring to early summer when weeds are 3 inches tall to early flowering.</p>
curlydock	<p>Early Season: Apply in prior to bolting stage of growth.</p> <p>Mid-to-Late Season: Apply at a rate of 3-4 pt/acre from bolting to bud stage.</p>

2-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
blackberry	Apply during or after bloom in tank mix combination with 1 pt/acre of Remedy* herbicide.
bullnettle, western horsenettle, Carolina horsenettle, silverleaf nightshade, upright prairie cone flower, western ragweed, yankeeweed	<p>Nettles and silverleaf nightshade: Apply when plants begin to flower in the spring.</p> <p>Upright prairie cone flower: Apply when plants are to 6 inches tall, but before flowering.</p> <p>Western ragweed: Apply in early season when plants are 2 inches tall to early flowering.</p> <p>Yankeeweed: Apply when plants are 8 to 10 inches tall.</p>
common goldenweed, Drummond's goldenweed (<i>Isocoma</i> spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 4-5 gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
dogfennel (cypressweed)	Apply when plants are from 6 to 24 inches tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
gray goldaster narrowleaf goldaster	Apply in the spring during the bud stage (pre-bloom) using an oil-water emulsion spray. Thorough coverage is essential.
lanceleaf ragweed	Use lower rates in rate range when weeds no more than 2 inches tall and conditions are favorable for plant growth. Use higher rates when weeds are from 3 inches tall to early flowering.
vervain, blue vervain, hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and plants become more mature.

3-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
marshelder (sumpweed)	Apply in early season when weeds are less than 4 inches tall. Older plants require higher rates. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment)
mesquite and oak sprouts (suppression of regrowth):	Delay applications of Grazon P+D for weed control until the foliage of regrowth brush in the treatment area is fully expanded and turned from light to dark green.
poisonous plants such as: groundsel (<i>Senecio</i> spp.), garbancillo, (Wooton loco) and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Because locoweeds are difficult to wet, use of a surfactant (0.25-0.5% vol/vol) or oil-water emulsion is recommended (see Mixing Instructions). Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants have dried up and lost their palatability.
tropical soda apple	Apply when plants are beginning to flower.

1 Gallon/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
Chinese tallowtree	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is required. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
pricklypear cactus	Make ground broadcast application in the spring or early summer to control a broad spectrum of broadleaf weeds in addition to pricklypear.

Control of Additional Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in Certain Western States

(For Use Only in the States of Colorado, Idaho, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming)

For best results in terms of forage response, desirable forage grasses should be present in the area to be treated in sufficient density to provide competition to lessen weed re-establishment following treatment. Additionally, good grazing management practices are recommended, particularly in the year following treatment, to allow forage grass density to increase.

Application Rates: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

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2 to 4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf weed or woody plant species:

Weed or Brush Species	Specific Use Directions
absinth wormwood	Apply when actively growing in spring or early summer.
biennial thistles, such as bull, musk, plumeless or scotch	Apply 2 pt./acre at rosette stage. Apply 3 to 4 pt./acre to bolted thistle, but apply before early bud stage.
broom snakeweed	Apply after full leaf development to early bloom stage when plants are actively growing.
curly dock	Apply 2 pt./acre early season prior to bolting. Apply 3 to 4 pt./acre in mid to late season from bolting to early flower.
curlycup gumweed	Apply when new growth and seedlings have fully emerged before bloom stage.
fringed sagebrush	Apply after seed stalk elongation and early flowering (mid - late June) and throughout the summer under good growing conditions.
goldenrod	Apply prior to bud stage during active growth.
ironweed, western	Apply 2 to 3 pt./acre prior to bud stage during active growth. A surfactant is recommended.
locoweeds, such as silky crazyweed (white point loco) and lambert crazyweed	Apply from early bud to early bloom stage. Herbicide application may increase palatability of these poisonous plants. Therefore, treated areas should not be grazed until after the toxic plants have dried up. Higher rate range should be considered to provide greater reduction of poisonous plants.
plains pricklypear	Apply when the majority of plants are in the flower stage. The lower rate will provide a partial stand reduction. More complete control may be obtained with the higher rate. Treatment response is very slow and may continue for 2 years or longer.
ragweed, common ragweed, western	Use the lower rate in early season when weeds are no more than 2 inches tall. Use the higher rate when weeds range from 3 inches tall to early flowering, when conditions are favorable for plant growth.
yarrow	Apply 2 pt./acre prior to bud stage. A surfactant is recommended.

4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf weed species:

Weed or Brush Species	Application Timing
geyer larkspur	Apply from rosette to flower bud formation.
hairy goldenaster	Apply at bloom stage during active growth.
oxeye daisy	Apply when all plants have emerged to late flowering.

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 (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. Use of an approved drift control agent is recommended to reduce the potential for spray drift.

1 Gallon/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
blackberry, elm, granjeno, locust, maple, oaks, sweetgum, sumac	Tank mix recommended rate of Grazon P+D with 1-2 qt/100 gallons of Remedy and apply in late spring to early summer when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage. For best results on blackberry, treat during or after bloom.
Annual broomweed, bitterweed, bitter sneezeweed, bullnettle, bursage (bur ragweed), bull thistle, buffalo bur, camphorweed, cocklebur, common ragweed, croton, gray goldaster, lanceleaf ragweed, marshelder (sumpweed), musk thistle, narrowleaf goldaster, prickly lettuce, smartweed, sunflower, wild carrot, silverleaf nightshade, tasajillo, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	Apply when target weed are 2-3 inches tall until early flowering.
flame sumac honeylocust,	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage.
Tropical soda apple	Apply when plant begin to flower.

1-2 Gallons/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Brush Species	Specific Use Directions
Marcartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. High volume application is recommended for control of large undisturbed clumps or small regrowth.

2 Gallons/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
Chinese tallow tree	Apply in spring or fall when conditions are favorable for plant growth.
common goldenweed, Drummond's goldenweed	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development.
poisonous plants such as: groundsel (<i>Senecio</i> spp.), garbancillo (Wootton loco), and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants have dried up and lost their palatability.
pricklypear cactus	Applications may be made throughout the year. Spray to wet all pads to runoff. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Water soluble dye may be added to the spray mixture to mark treated plants.

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