

62719-550

6-13-2007

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:

- Registration
- Reregistration

(under FIFRA, as amended)

EPA Reg. Number:
62719-550

Date of Issuance:
JUN 13 2007

Term of Issuance:
Conditional - Expires
June 6, 2012

Name of Pesticide Product:
Penoxsulam GR 0.04%

Name and Address of Registrant (include ZIP Code):

Dow AgroScience LLC
9330 Zionsville Road
Indianapolis, IN 46268-1054

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7) provided you agree in writing to:

1. Submit the following outstanding product chemistry data requirement within three years after the date of this letter: one year storage stability and corrosion characteristics study, Guidelines 830.6317 and 830.6320.

Signature of Approving Official:

Joanne I. Miller

Joanne I. Miller, Product Manager (23)
Herbicide Branch, Registration Division (7505C)

Date:

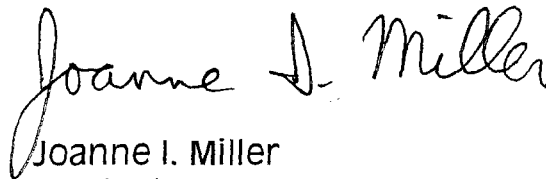
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2. Under "General Information", add the sentence " The active ingredient in this product may leave residues in treated grass mulch which could be harmful to some plants. Care should be exercised when using treated grass clippings as mulch around plants, including trees."
3. Submit one copy of your final printed labeling before you release the product for shipment.

A stamped copy of labeling is enclosed for your records. If you have any questions please contact Phil Errico at 703-305-6663.

Sincerely,



Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505P)

Enclosure: Stamped Conditionally Registered Product Label with EPA Reg. No. 62719-550

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[Sub Label A: Professional Uses]

(Label):

Penoxsulam GR 0.04%

Herbicide

For postemergence control of annual and perennial broadleaf weeds in established turfgrass, including residential lawns, golf courses, sports fields, sod farms and around commercial buildings and other commercial turfgrass areas

Active Ingredient:

penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide	0.04%
Other Ingredients	99.96%
Total	100.00%

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

JUN 13 2007

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

6279-550

Contains 0.02 lb of active ingredient per [15, 16, 17, 18, 20, 30, 40, 45, 50] lb bag

[Editor's note: Bag size provided by supplemental distributor.]

Keep Out of Reach of Children

Precautionary Statements

Hazards to Humans and Domestic Animals

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [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.

Environmental Hazards

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

Agricultural Use Requirements

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Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to back panel of label for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on the label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

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

EPA Reg. No. 62719-LLN

EPA Est. _____

Dow AgroSciences LLC • Indianapolis, IN 46268 USA

Net Weight _____

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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 in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements of 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: Keep unprotected persons out of treated areas until dusts have settled.

Storage and Disposal

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

Pesticide Storage: Store in cool dry place in original container.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

General Information

Penoxsulam GR 0.04% herbicide provides postemergence control of annual, biennial and perennial broadleaf weeds in established turfgrass, including residential lawns, golf courses, sports fields, sod farms and around commercial buildings and other commercial turfgrass areas.

General Use Precautions and Restrictions

- Do not apply Penoxsulam GR 0.04% to golf course putting greens or tees.
- Do not apply more than 50 lb of Penoxsulam GR 0.04% (0.02 lb ai penoxsulam) per acre per application to perennial ryegrass and tall fescue unless some injury can be tolerated.

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- Do not apply Penoxsulam GR 0.04% directly to, or otherwise permit Penoxsulam GR 0.04% to come into contact with, flowers, ornamental shrubs or trees, or other desirable broadleaf plants, as serious plant injury may occur.
- To minimize the potential for grass injury, additional applications should not be made within four weeks of a previous application.
- Avoid unnecessary disturbances, including watering and mowing, for approximately 24 hours after application.
- Do not apply more than 150 lb of Penoxsulam GR 0.04% (0.06 lb ai penoxsulam) per acre per application or more than 225 lb of Penoxsulam GR 0.04% (0.09 lb ai penoxsulam) per acre per annual growing season.

Treatment on Turfgrass Species Not Listed on the Label for Penoxsulam GR 0.04%

Users who wish to use Penoxsulam GR 0.04% on turfgrass species not recommended on this label may determine the suitability for use by treating a small area at a recommended rate. Prior to treatment of larger areas, the treated area should be observed for any sign of herbicidal injury during 30 days of normal growing conditions to determine if the target turfgrass species is tolerant. Applications should not be made to turfgrass under stress. The user assumes responsibility for any plant damage or other liability resulting from use of Penoxsulam GR 0.04% on turfgrass species not recommended on this label.

Penoxsulam GR 0.04% is recommended for use on the following established turfgrass species (numbers in parentheses (-) refer to footnotes below):

Established Cool Season Turfgrass (1)

Common Name	Scientific Name
annual bluegrass	<i>Poa annua</i>
bentgrass	<i>Agrostis species</i>
bluegrass, Kentucky	<i>Poa pratensis</i>
fescue, chewing	<i>Festuca rubra var. commutata</i>
fescue, creeping red	<i>Festuca rubra</i>
fescue, sheeps	<i>Festuca ovina</i>
fescue, tall (2)	<i>Festuca arundinaceae</i>
ryegrass, perennial (2)	<i>Lolium perenne</i>

Established Warm Season Turfgrass (3)

Common Name	Scientific Name
bahiagrass	<i>Paspalum notatum var. sauriae</i>
Bermudagrass (common or hybrid)	<i>Cynodon dactylon</i>
centipedegrass	<i>Eremochloa ophiuroides</i>
fescue, tall (growing in warm season areas) (2)	<i>Festuca arundinaceae</i>
kikuyugrass	<i>Pennisetum clandestinum</i>
seashore paspalum	<i>Paspalum vaginatum</i>
St. Augustinegrass	<i>Stenotaphrum secundatum</i>
zoysiagrass	<i>Zoysia japonica</i>
zoysiagrass	<i>Zoysia tenuifolia</i>

1. Use no more than 100 lb of Penoxsulam GR 0.04% (0.04 lb ai penoxsulam) per acre per application.
2. Use Penoxsulam GR 0.04% on these species at a maximum rate of 50 lb (0.02 lb ai penoxsulam) per acre per application and only if some injury can be tolerated. A slight yellowing of turfgrass may occur within two weeks of application. The discoloration is transient and is generally gone within four weeks of treatment under adequate growing conditions.
3. Use no more than 150 lb of Penoxsulam GR 0.04% (0.06 lb ai penoxsulam) per acre per application.

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Weeds Controlled or Suppressed

Generally, application rates at the lower end of the recommended rate range will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult (plant stress conditions such as drought or extreme temperatures, dense weed stands and/or larger weeds), the higher rate within the rate range or repeat applications will be needed. Weeds growing in the absence of competition from other vegetation generally require higher rates or repeat applications to obtain satisfactory control or suppression.

Weeds Controlled or Suppressed		Rate	
		lb/acre	lb/1000 sq ft
burdock	ivy, ground	50 - 150	1.2 - 3.4
chickweed, common	lambquarters		
chickweed, mouseear	lespedeza, common		
clover, hop	matchweed		
clover, red	medic, black		
clover, white	plantain, broadleaf		
cocklebur, common	plantain, buckhorn		
coffeeweed	purslane, common		
common vetch	ragweed, common		
creeping beggarweed	round leaf mallow		
curly dock	sheep sorrel		
dandelion, common	shepherd's purse		
dollarweed	smartweed		
dwarf beggarweed	spotted catsear		
English lawn daisy	spurweed		
false dandelion	Virginia buttonweed		
Florida betony	Virginia pepperweed		
goldenrod	wild violet		
hawkweed	woodsorrel, creeping		
henbit	woodsorrel, yellow		
kyllinga, annual and green (suppression only) ¹	nutsedge, yellow ¹	100 - 150	2.3 - 3.4
nutsedge, purple ¹			

¹ Re-treatment may be necessary

Application Directions

Apply Penoxsulam GR 0.04% using a drop or rotary-type spreader designed to apply granular herbicides or insecticides. Calibrate application equipment prior to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or turfgrass injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first.

Mow the turfgrass two to three days before applying Penoxsulam GR 0.04%. If the turfgrass is under moisture stress, a thorough sprinkler irrigation of at least 1/2 inch is necessary at least one to two days before application. Apply Penoxsulam GR 0.04% in the morning when dew is present. If necessary, sprinkler irrigate with less than 1/4 inch of water just prior to application to maximize particle adherence to leaf surfaces. Avoid watering of treated area within 24 hours of application. Avoid making applications if rainfall is expected within 24 hours after treatment.

Application Techniques for Applying Penoxsulam GR 0.04%

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- When using a drop-type spreader, a splashboard mounted under the hopper will provide more even granule distribution.
- A chain fastened to the side of the spreader and allowed to drag on the soil surface can be used to mark the edge of the treated swath and help prevent skips or overlaps.
- For treating smaller areas, a hand held or push-type rotary applicator such as a whirlybird or cyclone unit is recommended. For hand held units, walk and turn the crank at a constant rate of speed.
- A shaker-type applicator made from a small container with holes punched in the bottom is recommended for small, difficult to treat areas. Carefully measure the amount of product needed to avoid over application.

Spreader Settings as a Guide for Calibration

Note: These settings are provided as a suggested starting point in calibrating each individual spreader. Since no two spreaders are alike, these settings are not intended to be used as absolute recommendations by Dow AgroSciences or the spreader manufacturer.

Speed (mph)	Settings for Spreader		
	Recommended Rate of Penoxsulam 0.04%		
	50 lb/acre	100 lb/acre	150 lb/acre
XX	XX	XX	XX

Warren spreader settings are displayed in half-number increments only. The suggested settings that indicate quarter settings can be accomplished by placing the calibration arm between the half number marks on the spreader.

Rates and Timing of Application

Apply 50 to 150 lb of Penoxsulam GR 0.04% per acre (1.2 to 3.4 lb per 1000 sq ft) to established turfgrass. Sequential or follow-up applications may be required for dense weed infestations. Also, adverse environmental conditions prior to or after application may reduce effectiveness. If required, additional applications can be made every 30 days.

[Editor's note: Supplemental distributor will select the appropriate bag size and present only the rate information provided for that bag size on product labeling.]

Penoxsulam 0.04% Broadcast Rates

Bag Size	Rate		Treated Area	
	lb/acre	lb/1000 sq ft	acre	sq ft
15	50	1.2	0.3	13,200
	100	2.3	0.15	6,500
	150	3.4	0.1	4,400
16	50	1.2	0.32	13,900
	100	2.3	0.16	7,000
	150	3.4	0.11	4,600
17	50	1.2	0.34	14,800
	100	2.3	0.17	7,400
	150	3.4	0.12	5,000
18	50	1.2	0.37	16,000
	100	2.3	0.18	7,800
	150	3.4	0.12	5,200
20	50	1.2	0.4	17,400
	100	2.3	0.2	8,700
	150	3.4	0.13	5,800

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30	50	1.2	0.6	26,000
	100	2.3	0.3	13,000
	150	3.4	0.2	8,700
40	50	1.2	0.8	35,000
	100	2.3	0.4	17,400
	150	3.4	0.27	11,600
45	50	1.2	0.9	39,000
	100	2.3	0.45	19,600
	150	3.4	0.3	13,000
50	50	1.2	1	43,560
	100	2.3	0.5	21,780
	150	3.4	0.33	14,375

Best weed control results are obtained when Penoxsulam GR 0.04% is applied to small, actively growing weeds in the spring or early fall. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following time of application may reduce weed control. Broadleaf weed species germinate at different times. **Only weeds that are emerged at the time of application will be controlled.**

Apply Penoxsulam GR 0.04% to newly seeded cool season turfgrass only after the third mowing or after the turfgrass seedlings have tillered and developed an adequate secondary root system. Reseeding is not recommended for at least three to four weeks after application.

This product may also be applied to newly established warm season turfgrass. Delay treatments until three to four weeks after sodding, sprigging or plugging.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Seller 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. TO THE EXTENT PERMITTED BY LAW, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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 Seller. To the extent permitted by law, all such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, 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 Seller's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or

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(2) Replacement of amount of product used.

To the extent permitted by law, Seller shall not be liable for losses or damages resulting from handling or use of this product unless Seller is promptly notified of such loss or damage in writing. In no case shall Seller be liable for consequential or incidental damages or losses.

To the extent permitted by law, the terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of the Seller or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

EPA accepted ___/___/___

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[Sub Label B: Residential Uses]

(Label):

Penoxsulam GR 0.04%

Herbicide

For postemergence control of annual and perennial broadleaf weeds in established home lawns

[Editor's note: One or more of the following statements may be included on the label.]

and/or

Controls [tough] weeds [such as clover] [dandelion] [henbit] [ground ivy] [plantain] [wild violet] [nutsedge]

and/or

Apply at any time [spring, summer, fall]

and/or

Use for a [beautiful] [weed-free] lawn

and/or

Easy to use

and/or

[Just] One application kills weeds missed by competitive brands [and fertilizes into summer]

and/or

Better weed control than other leading brands

and/or

Effective weed control leads to greener, thicker lawns

and/or

Apply [anytime] when weeds are actively growing

and/or

Apply once for the whole season

and/or

Kills weeds

and/or

Effective weed control – prevents weeds all season long

and/or

Season-long weed killer

and/or

Controls weeds longer

and/or

Kills tough existing weeds [and controls new weeds] for 3 months

and/or

For use on cool and warm season turfgrass

and/or

Can be applied to newly established warm season grass

and/or

[Just] One application kills weeds

and/or

Better weed control than other brands

and/or

Can be used on newly planted grass

and/or

_____ lb covers up to _____ sq ft [of turfgrass]

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Active Ingredient:

penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide	0.04%
Other Ingredients	99.96%
Total	100.00%

Contains 0.02 lb of active ingredient per [15, 16, 17, 18, 20, 30, 40, 45, 50] lb bag

Keep Out of Reach of Children

Precautionary Statements

Hazards to Humans and Domestic Animals

Wear long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Environmental Hazards

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

Refer to back panel of label for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on the label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

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

EPA Reg. No. 62719-LLN

EPA Est. _____

Dow AgroSciences LLC • Indianapolis, IN 46268 USA

Net Weight _____

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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.

Storage and Disposal

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

Pesticide Storage: Store in cool dry place in original container.

Pesticide Disposal: If empty: Do not reuse this container. Place in trash or offer for recycling if available. **If partly filled:** Call your solid waste agency or 1-800-992-5994 for disposal instructions. Never place unused product down any indoor or outdoor drain.

How This Product Works

Penoxsulam GR 0.04% herbicide provides postemergence control of annual, biennial and perennial broadleaf weeds in established home lawns.

General Use Precautions and Restrictions

- Do not apply more than 1.2 lb of Penoxsulam 0.04% per 1000 sq ft per application to perennial ryegrass and tall fescue unless some injury can be tolerated.
- Do not apply Penoxsulam GR 0.04% directly to, or otherwise permit Penoxsulam GR 0.04% to come into contact with, flowers, ornamental shrubs or trees, or other desirable broadleaf plants, as serious plant injury may occur.
- To minimize the potential for grass injury, additional applications should not be made within four weeks of a previous application.
- Avoid unnecessary disturbances, including watering and mowing, for approximately 24 hours after application.
- Do not apply more than 3.4 lb of Penoxsulam 0.04% per 1000 sq ft per application or more than 5.1 lb of Penoxsulam 0.04% per 1000 sq ft per annual growing season.

Treatment on Turfgrass Species Not Listed on the Label for Penoxsulam GR 0.04%

Users who wish to use Penoxsulam GR 0.04% on turf species not recommended on this label may determine the suitability for use by treating a small area at a recommended rate. Prior to treatment of larger areas, the treated area should be observed for any sign of herbicidal injury during 30 days of normal growing conditions to determine if the target turfgrass species is tolerant. Applications should not be made to turfgrass under stress. The user assumes responsibility for any plant damage or other liability resulting from use of Penoxsulam GR 0.04% on turfgrass species not recommended on this label.

Penoxsulam GR 0.04% is recommended for use on the following established turfgrass species (numbers in parentheses (-) refer to footnotes below):

Established Cool Season Turfgrass

(1)

annual bluegrass
bentgrass
bluegrass, Kentucky
fescue, chewing

fescue, creeping red
fescue, sheeps
fescue, tall (2)
ryegrass, perennial (2)

Established Warm Season Turfgrass (3)

bahiagrass
Bermudagrass (common or hybrid)
centipedegrass
fescue, tall (growing in warm season areas) (2)
kikuyugrass
seashore paspalum
St. Augustinegrass
zoysiagrass

1. Use no more than 2.3 lb of Penoxsulam 0.04% per 1000 sq ft per application.

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- Use Penoxsulam 0.04% on these species at a maximum rate of 1.2 lb per 1000 sq ft per application and only if some injury can be tolerated. A slight yellowing of turfgrass may occur within two weeks of application. The discoloration is transient and is generally gone within four weeks of treatment under adequate growing conditions.
- Use no more than 3.4 lb of Penoxsulam GR 0.04% per 1000 sq ft per application.

Weeds Controlled or Suppressed

Generally, application rates at the lower end of the recommended rate range will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult (plant stress conditions such as drought or extreme temperatures, dense weed stands and/or larger weeds), the higher rate within the rate range or repeat applications will be needed. Weeds growing in the absence of competition from other vegetation generally require higher rates or repeat applications to obtain satisfactory control or suppression.

Weeds Controlled or Suppressed		Rate
		lb/1000 sq ft
burdock	ivy, ground	1.2 - 3.4
cofeeweed	lambsquarters	
chickweed, common	lespedeza, common	
chickweed, mouseear	matchweed	
clover, hop	medic, black	
clover, red	plantain, broadleaf	
clover, white	plantain, buckhorn	
cocklebur, common	purslane, common	
common vetch	ragweed, common	
creeping beggarweed	round leaf mallow	
curly dock	sheep sorrel	
dandelion, common	shepherd's purse	
dollarweed	smartweed	
dwarf beggarweed	spotted catsear	
English lawn daisy	spurweed	
false dandelion	Virginia buttonweed	
Florida betony	Virginia pepperweed	
goldenrod	wild violet	
hawkweed	woodsorrel, creeping	
henbit	woodsorrel, yellow	
kyllinga, annual and green (suppression only)	nutsedge, yellow ¹	2.3 - 3.4
nutsedge, purple ¹		

¹Re-treatment may be necessary

How to Apply

Apply Penoxsulam GR 0.04% using a drop or rotary-type spreader designed to apply granular herbicides or insecticides. Calibrate application equipment prior to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or turfgrass injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first.

Mow the turfgrass two to three days before applying Penoxsulam GR 0.04%. If the turfgrass is under moisture stress, a thorough sprinkler irrigation of at least 1/2 inch is necessary at least one to two days before application. Apply Penoxsulam GR 0.04% in the morning when dew is present. If necessary, sprinkler irrigate with less than 1/4 inch of water just prior to application to maximize particle adherence to

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leaf surfaces. Avoid watering of treated area within 24 hours of application. Avoid making applications if rainfall is expected within 24 hours after treatment.

Application Techniques for Applying Penoxsulam GR 0.04%

- When using a drop-type spreader, a splashboard mounted under the hopper will provide more even granule distribution.
- A chain fastened to the side of the spreader and allowed to drag on the soil surface can be used to mark the edge of the treated swath and help prevent skips or overlaps.
- For treating smaller areas, a hand held or push-type rotary applicator such as a whirlybird or cyclone unit is recommended. For hand held units, walk and turn the crank at a constant rate of speed.
- A shaker-type applicator made from a small container with holes punched in the bottom is recommended for small, difficult to treat areas. Carefully measure the amount of product needed to avoid over application.

Spreader Settings as a Guide for Calibration

Note: These settings are provided as a suggested starting point in calibrating each individual spreader. Since no two spreaders are alike, these settings are not intended to be used as absolute recommendations by Dow AgroSciences or the spreader manufacturer.

Speed (mph)	Settings for Spreader		
	Recommended Rate of Penoxsulam 0.04%		
	1.2 lb/1000 sq ft	2.3 lb/1000 sq ft	3.4 lb/1000 sq ft
XX	XX	XX	XX

Warren spreader settings are displayed in half-number increments only. The suggested settings that indicate quarter settings can be accomplished by placing the calibration arm between the half number marks on the spreader.

How Much to Apply

Apply 1.2 to 3.4 lb of Penoxsulam GR 0.04% per 1000 sq ft to established turfgrass. Sequential or follow-up applications may be required for dense weed infestations. Also, adverse environmental conditions prior to or after application may reduce effectiveness. If required, additional applications can be made every 30 days.

[Editor's note: Supplemental distributor will select the appropriate bag size and present only the rate information provided for that bag size on product labeling.]

Penoxsulam 0.04% Broadcast Rates

Bag Size	Rate	Treated Area
lb	lb/1000 sq ft	sq ft
15	1.2	13,200
	2.3	6,500
	3.4	4,400
16	1.2	13,900
	2.3	7,000
	3.4	4,600
17	1.2	14,800
	2.3	7,400
	3.4	5,000
18	1.2	16,000
	2.3	7,800
	3.4	5,200

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20	1.2	17,400
	2.3	8,700
	3.4	5,800
30	1.2	26,000
	2.3	13,000
	3.4	8,700
40	1.2	35,000
	2.3	17,400
	3.4	11,600
45	1.2	39,000
	2.3	19,600
	3.4	13,000
50	1.2	43,560
	2.3	21,780
	3.4	14,375

When to Apply

Best weed control results are obtained when Penoxsulam GR 0.04% is applied to small, actively growing weeds in the spring or early fall. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following time of application may reduce weed control. Broadleaf weed species germinate at different times.

Apply Penoxsulam GR 0.04% to newly seeded cool season turfgrass only after the third mowing or after the turfgrass seedlings have tillered and developed an adequate secondary root system. Reseeding is not recommended for at least three to four weeks after application.

This product may also be applied to newly established warm season turfgrass. Delay treatments until three to four weeks after sodding, sprigging or plugging.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Seller 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. TO THE EXTENT PERMITTED BY LAW, SELLER 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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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 Seller. To the extent permitted by law, all such risks shall be assumed by buyer.

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To the extent permitted by law, 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 Seller'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.

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