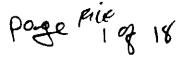
PM 23

100-665





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

JAN 1 4 1994

Karen S. Stumpf CIBA-GEIGY CORP. P.O. BOX 18300 Greensboro, N.C. 27419

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Subject: Label Amendment Submission of 08/09/93 in Response to PR Notice 93-7 EPA REG. NO. 100-665 PENNANT 5G GRANULAR HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

Send to EPA one (1) copy of the final printed labeling:

BEFORE selling or distributing any product bearing the final printed labeling
AND

WITHIN one year from date of this acceptance.



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Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs (7505C) U.S. Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs Room 266A, Crystal Mall 2 1921 Jefferson Davis Highway Arlington, VA 22202

Sincerely, Tim Tompkins, Deputy Chief **Registration Support Branch** Registration Division (7505W)

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Attachment

WPS (Front Panel)

Pennant@ 5G

Granular Herbicide

ACCEPTED with COMMENTS In EPA Letter Dated JAN 1 4 1994

Under the Foderal Insecticide, Fundicide, and Redenticide Act as amunded, for the particide registered under EPA Reg. No. 100 - 665

For weed control in nurseries, turf and landscape plantings

40 Pounds Net Weight

10 Pounds Net Weight

Active Ingredient: Metolachlor: 2-chloro-<u>N</u>-(2-ethyl-6-methylphenyl)-<u>N-(2-methoxy-1-methylethyl) acetamide5.0%</u> <u>Inert Ingredients: 95.0%</u> Total 100.0%

Product ID. 54790 (40 lbs.) Pennant 5G is a granular herbicide

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements ond directions for use on back of bag.

EPA Reg. No. 100-665

EPA Est. 5905 IA-1

Ciba-Geigy

(Back Panel)

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

<u>IMPORTANT</u>: Read the entire <u>Directions for Use</u> and the <u>Conditions of Sale and Warranty</u> before using this product. If terms are not acceptable, return the unopened product container at once.

Conditions of Sale and Warranty

The <u>Directions for Use</u> of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Ciba-Geigy or the Seller. All such risks shall be assumed by the Buyer.

Ciba-Geigy warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the <u>Directions for Use</u> subject to the inherent risks referred to above. <u>Ciba-Geigy makes no other express or</u> implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Ciba-Geigy or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Ciba-Geigy and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing <u>Conditions of Sale and Warranty</u>, which may be varied only by agreement in writing signed by a duly authorized representative of Ciba-Geigy. DIRECTIONS FOR USE

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

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 restrictedentry 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

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- Waterproof gloves
- Shoes plus socks

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.

Do not enter treated areas without protective clothing until dust has settled.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, AND/OR ILLEGAL RESIDUES.

General Information

Pennant 5G Herbicide controls many annual grasses, certain broadleaf weeds and yellow nutsedge.

Pennant 5G may be used on commercial and residential turf and other non-crop land including, but not limited to: airports, roadsides, golf courses, sports fields, public recreational areas, ornamental gardens, cemeteries and other landscaped areas. Pennant 5G may also be used in and around container and field-grown ornamentals, nonbearing nursery stock and on sod farms.

DO NOT USE IN GREENHOUSES OR OTHER ENCLOSED STRUCTURES.

NOTICE TO USER: Plant tolerances to Pennant 5G Herbicide have been found to be acceptable in the specific genera and species listed on this label. Because of the large number of species and varieties of plants, it is impossible to test each for tolerance to Pennant 5G. Neither the manufacturer nor the seller has determined whether or not Pennant 5G can be used safely on plants not specified on this label. Therefore, the professional user should determine if Pennant 5G can be used safely by testing the recommended rates on a particular group of similar unlabeled ornamental plants in a small area before widespread use or by checking with the local weed specialist for guidance. Applicator Settings

Apply Pennant 5G using a rotary spreader or similar type applicator at rates indicated below. Calibrate spreader before application according to the manufacturer's directions. Refer to chart below for suggested settings. Settings are only reference points for calibration. Due to variations in equipment, equipment age and condition, humidity, variations in walking speed, and other variables, these settings should not be used without first checking them through calibration.

Rate Per Acre	40 lbs.	60 lbs.	80 lbs.
Rate per 1,000 sq. ft.	.9 lb.	1.35 lbs.	1.8 lbs.
Ounces per 1,000 sq. ft.	14.5 oz.	21.75 oz.	29 oz.
Applicator Brand	S	uggested Se	ttings
Scott R-7			B+5.5/10
Scott R-8	G+8.5/10	H+3.5/10	H+6.5/10
Lesco	A+7.5/10		C+1.5/10
Warren-T	2.8	3.3	3.8
Spyker & Cyclone	2.6	2.8	3.0

Suggested Applicator Settings

Nurseries and Landscape Plantings

Weeds Controlled

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Weeds Partially Controlled*: common purslane, groundsel, hairy nightshade, sandbur, seedling johnsongrass, shattercane and volunteer sorghum.

*Control of these weeds can be erratic due partially to variable weather conditions.

Note: If you plan to use Pennant 5G to control weed species not listed on this label, check with your local weed specialist or test Pennant 5G on a small-scale basis before widespread use.

Application

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Broadcast Pennant 5G at rates shown below. Apply before grass and broadleaf weeds or yellow nutsedge emerge, or after existing weeds or nutsedge plants have been removed. A second application may be needed to provide control for an extended period. Do not make more than 2 applications per year.

Suggested Rates of Pennant 5G

<u>Soil Texture</u>	<u>Lbs./A*</u>	<u>Lbs./1,000 sq. ft.</u>
Coarse	40-60	0.9 - 1.4
Medium	40-60	0.9 - 1.4
Fine	60-80	1.4 - 1.8

*Use higher rates for a given soil texture on high organic matter soils and where yellow nutsedge and/or a heavy infestation of weeds is expected. Use the lower rates on soils with low organic matter content, and where light infestations of grass weeds are expected. In peat and muck soils and soils highly enriched with organic matter (i.e., sawdust) and/or synthetic mixes, the activity of Pennant 5G may be reduced.

<u>Note</u>: Whenever rainfall does not occur within one week after application, overhead irrigation is recommended (1/4-1/2 inch) to move the herbicide into the soil to provide weed control activity. Use the lower water volume (1/4 inch) on coarsetextured soils and the higher volume (1/2 inch) on fine-textured soils.

If band applications are used, calculate the amount of Pennant 5G needed as follows:

<u>Band width in inches</u>	Х	Broadcast Rate	Band Rate
Row Spacing in inches		Per Acre	Per Acre

Precautions: 1) To avoid plant injury, do not apply Pennant 5G to seedbeds, cutting beds, or unrooted cuttings before transplanting or to plants until the soil has firmly settled around roots. 2) Should Pennant 5G granules adhere to the foliage, follow with sufficient overhead irrigation to wash Pennant 5G from the foliage to reduce the chance of injury.

Pennant 5G has been found to be safe on the following plants:

Container-Grown Plants

Scientific Name

Common Name/Variety

Abelia grandiflora Acer rubrum Ajuga reptans Aucuba japonica variegata Betula nigra Buxus spp. Carex spp. Cornus spp. Cotoneaster spp. Euonymus fortunei Euonymus kiautschovicus Forsythia spp. Gardenia jasminoides Hedera helix Hosta lancifolia Ilex attenuata Ilex cornuta Ilex crenata Juniperus chinensis Juniperus horizontalis Juniperus sabina Juniperus virginiana Kalmia spp. Leucothoe fontanesiana Ligustrum japonicum Liriope muscara Liriope spicata Myrica cerifera Ophiopogon japonicus Pachysandra terminalis Pinus strobus Pinus thunbergii Pittosporum tobira Quercus phellos Rhododendron catawbiense Rhododendron indica Rhododendron obtusum Taxus cuspidata Thuja occidentalis Tsuga canadensis Viburnum spp. Yucca spp.

Glossy Abelia Red Maple Ajuga Variegated Aucuba River Birch Boxwood Carex Dogwood Cotoneaster Euonymus Manhattan Euonymus Forsythia Gardenia English Ivy Variegated Hosta Savannah Holly Dwarf Burford Holly Japanese Holly Chinese Juniper Juniper Hick's Juniper/Foemina Eastern Red Cedar Mountain Laurel Leucothoe Ligustrum or Privet Liriope Green Liriope Wax Myrtle Mondo Grass Japanese Pachysandra White Pine Japanese Black Pine Pittosporum Willow Oak Catawba Azalea Formosa/Indica Azalea Kurume Azalea Yew Globe Arborvitae Hemlock Viburnum Yucca

Field- and Liner*-Grown Plants and Plants in Landscape Plantings

*Plants transplanted normally in rows in a nursery or similar area for further growth before transplanting to final growing location (place of establishment).

Abelia spp. Glossy Abelia Abies spp. Fir	
Acer spp. Maple	
Achillea spp. Yarrow	
Agapanthus africanus African Lily	
Ageratum spp. Blue Ageratum	
Ajuga reptans Ajuga	
Allium spp. Allium	
Allyssum spp. Allyssum	
Antirrhinum majus Snapdragon	
Aquilegia spp. Columbine	
Artemesia stoleriana Dusty Miller	
Asclepias spp. Milkweed	
Aster spp. Aster	
Aucuba spp. Aucuba	
Berberis spp. Barberry	
Betula spp. Birch	
Bougainvillea spp. Bougainvillea	
Buxus spp. Boxwood	
Camellia spp. Camellia	
Campanula carpatica Bellflower	
Canna indica Canna Lily	
Carex spp. Carex	
Chrysanthemum spp. Chrysanthemum, Daisy	
**Citrus spp. Citrus	
Coreopsis spp. Coreopsis	
Cornus spp. Dogwood	
Cortaderia selloana Pampas Grass	
Cotoneaster spp. Cotoneaster	
Crocus spp. Crocus	
Cryophytum crystallium Ice Plant	
Cytisus racemosus Sweet Broom	
Daucus carota Queen Anne's Lace	
Delphinium spp. Delphinium	
Dianthus barbatus Sweet William	
Eleagnus spp. Eleagnus	
Endymion spp. Endymion	
Escallonia fradesii Escallonia	
Euonymus spp. Euonymus	
Ficus spp. Fig	
Forsythia spp. Forsythia	
Fraxinus spp. Ash	
Gaillardia spp. Gaillardia	

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Gardenia Gardenia jasminoides Gazania splendoens Gazania Gold Rush Carolina Jessamine Gelsemium sempervirens Geranium spp. Geranium Geum Geum spp. Gingko biloba Gingko Gladiolus x hortulanus Gladiolus Gleditsia triacanthos Honey Locust English Ivy Hedera spp. Hemerocallis spp. Daylily Hibiscus Hibiscus spp. Hosta lancifolia Hosta Hyacinth Hyacinthus spp. Hydrangea spp. Hydrangea Hypericum spp. St. John's Wort Ilex spp. Holly Illicium spp. Spicebush Impatiens spp. Impatiens Iris spp. Iris Jasmine spp. Jasmine Juniper Juniperus spp. Kalmia spp. Kalmia Lagerstroemia spp. Crepe Myrtle Leucothoe spp. Leucothoe Privet Ligustrum spp. Lilium spp. Lily Liquidambar spp. Sweetgum Liriodendron tulipifera Tulip Tree Liriope spp. Liriope Lonicera spp. Honeysuckle Lupinus spp. Lupines Lythrum spp. Loosestrife Magnolia spp. Magnolia **Malus spp. Crabapple, Apple Mesembryanthemum crystallinum Ice Plant Fortnight Lily Morea spp. Muscari armeniacum Muscari Myrica spp. Wax Myrtle Nandina domestica Bamboo Narcissus spp. Narcissus Nerium oleander Oleander Oenothera spp. Primrose Mondo Grass Ophiopogon japonicus Ornithogalum umbellatum Star of Bethlehem Osmanthus spp. Osmanthus Pachysandra spp. Pachysandra Pelargonium x hortorum Geranium Petunia spp. Petunia Phlox spp. Phlox Photinia spp. Photinia Physocarpus spp. Ninebark Physostegia spp. Physostegia Picea spp. Spruce

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Pieris japonica Pinus spp. Pittosporum spp. Podocarpus spp. Populus spp. Potentilla spp. **Prunus spp. Pseudotsuga menziesii Pyracantha spp. **Pyrus spp. Quercus spp. Raphiolepis spp. Rhododendron spp. Robinia spp. Rosa spp. Rumohra adiantiformis Salix spp. Scilla spp. Sedum spp. Senecio doronicum Spiraea spp. Stachys spp. Statice sinnata Symphoricarpos spp. Syringa spp. Tagetes spp. Taxodium distichum Taxus spp. Ternstoemia gymanathera Thuja spp. Tsuga spp. Tulipa spp. Veronica spp. Viburnum spp. Vinca spp. Viola x Wittrockiana Washingtonia robusta Weigela spp. Wisteria senensis Yucca spp.

Zinnia spp.

Japanese Andromeda Pine Pittosporum Podocarpus Poplar Potentilla (Cinquefoil) Cherry Douglas Fir Firethorn Pear Oak Indian Hawthorne Rhododendron/Azalea Locust Rose Leatherleaf Fern Willow Scilla Stone Crop Leopard's-bane Spiraea Stachys Annual Statice Snowberry Lilac Marigold Bald Cypress Yew Cleyera Arborvitae Hemlock Tulip Veronica Viburnum Periwinkle Pansy Mexican Fan Palm Weigela Wisteria Yucca Zinnia

** Do not apply to trees or plants that will bear harvestable fruit within 12 months, or illegal residues may result.

Pennant 5G may also be applied before or after applications of other herbicides registered for ornamentals (e.g., Goal@, Princep@, Ronstar@, Surflan@, etc.) to broaden the spectrum of control.

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Turfgrass

Warm Stason Grasses (Bermudagrass, Centipedegrass, St. Augustinegrass, Bahiagrass and Zoysiagrass)

Apply Pennant 5G <u>before weeds emerge</u>. Since soil moisture is necessary to activate Pennant 5G, irrigate with 1/2 inch of water if rainfall does not occur within 7 days after treatment. (See <u>Precautions</u> below).

Weeds Controlled

<u>Scientific Name</u>	Common Name	Rate of <u>Pennant 5G</u>
Cypereus esculentus Digitaria ischaemum Digitaria sanguinalis Leptochloa fascicularis Leptochloa uninervia	Annual sedge Yellow nutsedge Smooth crabgrass Large crabgrass Bearded sprangletop Mexican sprangletop Annual Bluegrass	80 lbs./A 80 lbs./A 80 lbs./A 80 lbs./A 40-80 lbs./A 40-80 lbs./A 40-80 lbs./A

Note: To minimize potential turf injury, do not apply more than once per year.

Commercial St. Augustinegrass Sod Production

Apply Pennant <u>before weeds emerge</u>. Since soil moisture is necessary to activate Pennant 5G, irrigate with 1/2 inch of water if rainfall does not occur within 7 days after treatment (See <u>Precautions</u> below).

Weeds Controlled

<u>Scientific Name</u>	<u>Common Name</u>	Rate of <u>Pennant 5G</u>
Cyperus compressus	Annual sedge	80 lbs./A
Cypereus esculentus	Yellow nutsedge	80 lbs./A
Digitaria ischaemum	Smooth crabgrass	80 lbs./A
Digitaria sanguinalis	Large crabgrass	80 lbs./A
Leptochloa fascicularis	Bearded sprangletop	40-80 lbs./A
Leptochloa uninervia	Mexican sprangletop	40-80 lbs./A
Poa annua	Annual Bluegrass	40-80 lbs./A

Notes: (1) Do not apply more than once every six weeks. (2) Do not apply more than a total of 160 lbs./A/year.

<u>Precautions for all uses on turf: Temporary slowing of growth</u> and yellowing may occur following application. To avoid turf injury, 1) use only on turfgrass not under stress from infestations of insects, nematodes, or diseases; 2) do not use on golf greens, tees, or aprons; 3) do not apply over the rooting area of trees or ornamentals not listed on this label; 4) do not seed or overseed with desirable turfgrass 4 months before or 6 months after treatment and 5) do not apply this product to newly seeded grasses until they have overwintered and have a well-developed rhizome system. 6) Weed control may be reduced when Pennant 5G is applied to turf which has accumulated thatch sufficient enough to interfere with the herbicide's movement to the soil surface.

<u>Note</u>: To avoid possible illegal residues, do not graze or feed turf clippings to animals.

Storage and Disposal

<u>Pesticide</u>

Store in a dry place. Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

<u>Container</u>

Completely empty bag into application equipment. 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 from burning bags.

For minor spills, follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372 day or night. Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing dust.

Statement of Practical Treatment

<u>If in eyes</u>: Flush with plenty of water. Call a physician if irritation persists.

<u>If on skin</u>: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air.

<u>Personal Protective Equipment:</u>

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- 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.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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Environmental Hazards

Cover or incorporate granules that are spilled during loading or are visible on soil surface in turn areas. Do not contaminate water when disposing of equipment wash waters. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Ground Water and Surface Water Advisory

Metolachlor has been identified in limited sampling of groundwater and there is the possibility that it may leach through the soil to ground water, especially where soils are coarse and ground water is near the surface. Following application and during rainfall events that cause runoff, metolachlor may reach surface water bodies including streams, rivers, and reservoirs.

Care must be taken when using this product to prevent spills or improper disposal of excess pesticide granules.

Goal@ trademark of Rohm and Haas Company for oxyfluorfen

Pennant® trademark of Ciba-Geigy Corporation for metolachlor U.S. Patent No. 4,022,611

Princep® trademark of Ciba-Geigy Corporation for simazine

Ronstar® trademark of Rhone-Poulenc for oxidiazon

Surflan® trademark of Elanco Products Company for oryzalin

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Ciba Plant Protection Turf and Ornamental Products Ciba-Geigy Corporation Greensboro, NC 27419

> December 11, 1985 Revised June 15, 1987 Revised August 8, 1988 Add Farmland Est. No. Revised November 15, 1989 Containerized plants Revised September 12, 1991 Additional ornamentals, containerized plants, and turf. March 20, 1992 Revised all turf

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Revised August, 1993 - WPS

CGA 82L2F 083 - 40 lb. bag (printed) CGA 82L3F 082 - PSL (40 lb.) CGA 82L6E 083 - 10 lb. PSL CGA 82L7D 083 - 40 lb. 5905-IA-1

[GANNONC.LABELP]PEN5WP40 - 8/5/93

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