

PM 25 REG# 241-338

1/10

**PENTAGON™ 60 DG  
herbicide**

**For Use In Ornamentals And Turf Areas**

**ACTIVE INGREDIENT:**

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2,  
6-dinitrobenzenamine..... 60.0%

**INERT INGREDIENTS:**..... 40.0%

**TOTAL**..... 100.0%

EPA Reg. No. 241-

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION/PRECAUCION!**

---

**PRECAUCION AL USUARIO:** Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

---

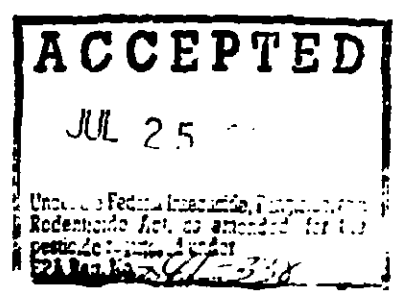
**See Additional Precautionary Statements  
Inside Booklet**

In case of an emergency endangering life and/or property involving this product, call collect, day or night, Area code 201-835-3100.

**American Cyanamid Company  
Agricultural Division  
VPC Ventures Dept.  
Wayne, NJ 07470 ©1990**

**Net Contents:**

**™Trademark of American Cyanamid Company**



6/90

2  
10

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS  
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

**STATEMENT OF PRACTICAL TREATMENT**

**If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

**If on skin:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. DO NOT apply directly to water or wetlands (swamps, bogs, marshes or potholes). Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. DO NOT contaminate water when disposing of equipment washwaters.

**DISCLAIMER**

The label instructions for use 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 use or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risk referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including other express or implied warranty of FITNESS or of MERCHANTABILITY.

**BEST AVAILABLE COPY**

6/90

(3/10)

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of pesticide application. DO NOT apply this product through any type of irrigation system.

**STORAGE AND DISPOSAL**

**STORAGE:** DO NOT store above 120°F. Store in original containers and keep closed. Store in a cool, dry place.

DO NOT contaminate water, food, or feed by storage or disposal.

**PESTICIDE**

**DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. 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.

**CONTAINER**

**DISPOSAL:** Completely empty bag into spray tank 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.

Observe all cautions and limitations in this leaflet and the labels of products used in combination with PENTAGON 60 DG. The use of PENTAGON 60 DG not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

**GENERAL INFORMATION**

PENTAGON 60 DG treatments will not control established weeds. Applications must be made prior to germination of weeds.

Three applications per year may be made. Allow at least 2 months between applications except where indicated under RATE AND APPLICATION CHART.

Use only on well established turfgrass with a dense and uniform stand. DO NOT use on newly seeded or sprigged turfgrass. DO NOT use on winter-overseed turfgrass. DO NOT use on turfgrass severely thinned by winter stress.

PENTAGON 60 DG provides effective residual weed control which may affect new turfgrass seedlings or sprigs. DO NOT reseed or winter-overseed turfgrass within 4 growing months after application. DO NOT sprig turfgrass within 5 months after application.

DO NOT use on bentgrass or dichondra maintained as desirable turf.

### MIXING AND APPLICATION INSTRUCTIONS

Add PENTAGON 60 DG slowly to partially-filled tank (1/2 to 3/4 full) of water while agitating and then fill the remainder of the tank with water. **MAINTAIN CONTINUOUS AGITATION WHILE ADDING PENTAGON 60 DG.** If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying as needed.

Apply with properly calibrated equipment in sufficient water per acre to provide uniform spray distribution. Low pressure (25-50 psi) sprayers are recommended. Nozzle screens must be no finer than 50 mesh. Avoid application when winds may cause drift.

PENTAGON 60 DG treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application.

Avoid contact of spray solution with driveways, stone, wood or other porous surfaces. Rinse immediately to avoid staining.

### COMPATIBILITY

PENTAGON 60 DG is compatible with most commonly used herbicides. When tank mixing be sure to add PENTAGON 60 DG to the partially filled tank first, mix thoroughly, and then add combination products to the mixture. **DO NOT** apply tank mix combinations unless previous experience indicates the mixture is effective and will not result in application problems or plant injury. **DO NOT** attempt to mix PENTAGON 60 DG directly with liquid fertilizer. Premix one part of PENTAGON 60 DG with two parts water and add this diluted mixture slowly into the tank while agitating.

### WEED CONTROL IN LAWNS AND TURF

PENTAGON 60 DG can be used for weed control in lawns and turf.

#### TURFGRASS TYPES:

PENTAGON 60 DG should only be applied to well established lawns and turf.

PENTAGON 60 DG can be used on the following turfgrasses:

Bahia	Fine fescue	St. Augustinegrass
Bermudagrass	Kentucky bluegrass	Tall fescue
Centipedegrass	Perennial ryegrass	Zoysiagrass

#### WEEDS SPECIES CONTROLLED:

When applied as directed, PENTAGON 60 DG will control the following weed species:

**BEST AVAILABLE COPY**

**GRASSES CONTROLLED:**

<u>Common Name</u>	<u>Scientific Name</u>
Annual bluegrass	<u>Poa annua</u>
Barnyardgrass	<u>Echinochloa crus-galli</u>
Crabgrass	<u>Digitaria spp.</u>
Fall panicum	<u>Panicum dichotomiflorum</u>
Foxtail	<u>Setaria spp.</u>
Goosegrass	<u>Eleusine indica</u>

**BROADLEAF WEEDS CONTROLLED:**

<u>Common Name</u>	<u>Scientific Name</u>
Common chickweed	<u>Stellaria media</u>
Cudweed	<u>Gnaphalium spp.</u>
Hop clover	<u>Trifolium procumbens</u>
Henbit	<u>Lamium amplexicaule</u>
Mouseear chickweed	<u>Cerastium vulgatum</u>
Prostrate spurge	<u>Euphorbia supina</u>
Yellow woodsorrel	<u>Oxalis stricta</u>
Evening primrose	<u>Oenothera biennis</u>

**RATE AND APPLICATION CHART**

<u>TURF SPECIES</u>	<u>WEEDS CONTROLLED</u>	<u>RATES OF PENTAGON 60DG</u>	<u>COMMENTS</u>
NORTHERN GRASSES:	Fine fescue	2.5 to 3.3 lbs. per Acre or 0.9 to 1.2 oz. per 1000 sq.ft.	Apply in spring before weeds germinate
	Kentucky bluegrass		
	Perennial ryegrass		
	Tall fescue		
	Barnyardgrass		
	Crabgrass		
	Fall panicum		
	Foxtail		
	Hop clover		
	Prostrate spurge		
Yellow woodsorrel	5 lbs. per Acre or 1.8 oz. per 1000 sq.ft.	Apply in spring before weeds germinate. Repeat application if necessary in 8 weeks at 2.5 lbs. per Acre or 0.9 oz. per 1000 sq. ft.	
Goosegrass			
Evening primrose	2.5 to 3.3 lbs. per Acre or 0.9 to 1.2 oz. per 1000 sq.ft.	Apply in late summer to early fall before weeds germinate	
Annual bluegrass			
Common chickweed			
Mouseear chickweed			
Henbit			

6/90

**BEST AVAILABLE COPY**

6/10

<u>TURF SPECIES</u>	<u>WEEDS CONTROLLED</u>	<u>RATE OF PENTAGON 60DG</u>	<u>COMMENTS</u>
<b>SOUTHERN GRASSES:</b>			
Bahia	Barnyardgrass	2.9 to 3.3 lbs.	Apply in spring before weeds germinate. Repeat application if necessary in 8 wks. using 2.5 lbs. per acre.
Bermudagrass	Crabgrass	per Acre or	
Centipedegrass	Fall panicum	1.0 to 1.2 oz.	
St. Augustinegrass	Foxtail	per 1000 sq.ft.	
Tall fescue	Prostrate spurge		
Zoysiagrass	Yellow woodsorrel		
	Cudweed		
	Goosegrass	4.5 to 5.5 lbs.	
	Hop clover	per Acre or 1.6	
	Evening primrose	to 2.0 oz. per 1000 sq.ft.	
	Henbit	2.5 to 3.3 lbs.	Apply in late summer to early fall before weeds germinate
	Annual bluegrass	per Acre or 0.9	
	Common chickweed	to 1.2 oz. per	
	Mouseear chickweed	1000 sq.ft.	

**WEED CONTROL IN AND AROUND ORNAMENTAL PLANTINGS**

PENTAGON 60 DG herbicide is recommended for use on the following established field grown and container ornamentals, plants, trees, and established ground covers. Care must be taken that soil or planting mixes have settled firmly following transplanting and that there are no cracks that would allow direct contact of PENTAGON 60 DG herbicide and roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and ornamental tolerance. PENTAGON 60 DG herbicide sprays can be safely applied over-the-top of those plants listed below. Plant only those ornamentals listed on this label into soil treated the previous season with PENTAGON 60 DG or injury may occur. DO NOT apply PENTAGON 60 DG to seedbeds.

PENTAGON 60 DG herbicide may be used for the preemergence control of the weed species listed in and around the following established ornamental plants:

<u>Common Name</u>	<u>Scientific Name</u>
Abelia, Glossy	<i>Abelia grandiflora</i> var. "grandiflora"
Ash, Red	<i>Fraxinus pennsylvanica</i>
Azalea	<i>Rhododendron indicum</i>
Barberry, Japanese	<i>Berberis thunbergii</i> var. "atropurpurea"
Birch, European Weeping	<i>Betula pendula</i>
Birch, River	<i>Betula nigra</i>
Boxwood, Common	<i>Buxus sempervirens</i>

**BEST AVAILABLE COPY**

<u>Common Name</u>	<u>Scientific Name</u>
Capejasmine	<u>Gardenia jasminoides</u> var. "mystery"
Cedar, Northern White	<u>Thuja occidentalis</u>
Cedar, Red	<u>Juniperus virginiana</u>
Cotoneaster, Rock	<u>Cotoneaster horizontalis</u>
Crape myrtle, Common	<u>Lagerstroemia indica</u>
Dogwood, Flowering	<u>Cornus florida</u>
Dogwood, Silky	<u>Cornus amomum</u>
Euonymus	<u>Euonymus alata</u> var. "compacta"
Fir, Fraser	<u>Abies fraseri</u>
Fir, White	<u>Abies concolor</u>
Forsythia, Border	<u>Forsythia intermedia</u>
Hemlock, Eastern	<u>Tsuga canadensis</u>
Holly, American	<u>Ilex opaca</u> var. "tsuga"
Holly, Chinese	<u>Ilex cornuta</u>
Holly, Japanese	<u>Ilex crenata</u> var. "compacta"
Holly, Yaupon	<u>Ilex vomitoria</u> var. "shillings dwarf"
Juniper, Chinese	<u>Juniperus chinensis</u> var. "pfitzer" var. "pfitzer aurea"
Juniper, Shore	<u>Juniperus conferta</u>
Juniper, Trailing	<u>Juniperus horizontalis</u> cv. "plumosa" cv. "prince of wales" cv. "youngstown"
Laurel, Mountain	<u>Kalmia latifolia</u>
Lilac, Common	<u>Syringa vulgaris</u>
Locust, Honey	<u>Gleditsia triacanthos</u> var. "inermis"
Maple, Red	<u>Acer rubrum</u>
Nandina	<u>Nandina domestica</u>
Oak, Live	<u>Quercus virginiana</u>
Oak, Water	<u>Quercus nigra</u>
Peach	<u>Prunus persica</u>
Photina	<u>Photina frazerii</u>
Pieris, Japanese	<u>Pieris japonica</u>
Pine, Austrian	<u>Pinus nigra</u>
Pine, Loblolly	<u>Pinus taeda</u>
Pine, White	<u>Pinus strobus</u>
Privet, California	<u>Ligustrum ovalifolium</u>
Privet, Japanese	<u>Ligustrum japonicum</u>
Robira	<u>Pittosporum tobira</u>
Sourwood	<u>Oxydendron arboreum</u>
Spiraea	<u>Spiraea vanhouttei</u>
Spruce, Colorado Blue	<u>Picea pungens</u>
Waxmyrtle, Common	<u>Myrica cerifera</u>
Yew	<u>Taxus media</u>
Yew, Japanese	<u>Taxus cuspidata</u>

BEST AVAILABLE COPY

8  
10

### GROUND COVER ORNAMENTALS

PENTAGON 60 DG herbicide may be used for the preemergence control of the weed species listed in and around the following established ground cover plants:

<u>Common Name</u>	<u>Scientific Name</u>
Capweed	<u>Arctotheca calendula</u>
Daisy, Trailing African	<u>Osteospermum fruticosum</u>
Gazania	<u>Gazania splendens</u>
Rose-of-Sharon	<u>Hypericum calycinum</u>
Iceplant, Large Leaf	<u>Carpobrotus edule</u>
Ivy, English	<u>Helix hедера</u>
Ivy, Geranium	<u>Pelargonium peltatum</u>
Myoporum	<u>Myoporum parviflorum</u>
Pachysandra	<u>Pachysandra terminalis</u>
Potentilla	<u>Potentilla jackmanii</u>
Potentilla	<u>Potentilla verna</u>

#### PRECAUTION!

Apply only to established plantings.  
DO NOT apply PENTAGON 60 DG herbicide in ornamentals nurseries.

#### APPLICATION RATE FOR ORNAMENTALS

For preemergence control of the weed species listed, apply PENTAGON 60 DG herbicide at the following rates:

<u>Length of Control</u>	<u>PENTAGON 60 DG Rate</u>
Short Term Control (2-4 months)	3.3 lbs./Acre
Long Term Control (6-8 months)	6.6 lbs./Acre

PENTAGON 60 DG herbicide will not control established weeds.

The efficacy of PENTAGON 60 DG herbicide will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation.

**BEST AVAILABLE COPY**



(9)

## WEED SPECIES CONTROLLED

The following grass and broadleaf weeds are controlled by preemergence treatments of PENTAGON 60 DG herbicide at the rates recommended.

### GRASSES CONTROLLED

<u>Common Name</u>	<u>Scientific Name</u>
Barnyardgrass	<u>Echinochloa crus-galli</u>
Bluegrass, Annual	<u>Poa annua</u>
Crabgrass	<u>Digitaria</u> spp.
Crowfootgrass	<u>Dactyloctenium aegyptium</u>
Foxtail, Giant	<u>Setaria faberi</u>
Foxtail, Green	<u>Setaria viridis</u>
Foxtail, Yellow	<u>Setaria lutescens</u>
Goosegrass	<u>Eleusine indica</u>
Itchgrass	<u>Rottboellia exaltata</u>
Johnsongrass (from seed)	<u>Sorghum halepense</u>
Junglerice	<u>Echinochloa colonum</u>
Lovegrass	<u>Eragrostis</u> spp.
Panicum, Browntop	<u>Panicum fasciculatum</u>
Panicum, Fall	<u>Panicum dichotomiflorum</u>
Panicum, Texas	<u>Panicum texanum</u>
Sandbur, Field	<u>Cenchrus incertus</u>
Signalgrass	<u>Brachiaria platyphylla</u>
Sprangletop, Mexican	<u>Leptochloa uninervis</u>
Sprangletop, Red	<u>Leptochloa filiformis</u>
Witchgrass	<u>Panicum capillare</u>
Woolly Cupgrass	<u>Eriochloa villosa</u>

### BROADLEAF WEEDS CONTROLLED

<u>Common Name</u>	<u>Scientific Name</u>
Carpetweed	<u>Mollugo verticillata</u>
Chickweed, Common	<u>Stellaria media</u>
Chickweed, Mouseear	<u>Cerastium vulgatum</u>
Clover, Hop	<u>Trifolium procumbens</u>
Cudweed	<u>Gnaphalium</u> spp.
Fiddleneck	<u>Amsinckia intermedia</u>
Filaree	<u>Erodium</u> spp.
Henbit	<u>Lamium amplexicaule</u>
Knotweed (prostrate)	<u>Polygonum aviculare</u>
Kochia	<u>Kochia scoparia</u>
Lambsquarters	<u>Chenopodium album</u>
Pigweed	<u>Amaranthus</u> spp.
Puncturevine	<u>Tribulus terrestris</u>
Purslane	<u>Portulaca oleracea</u>
Pusley, Florida	<u>Richardia scabra</u>
Rocket, London	<u>Sisymbrium irio</u>
Shepherdspurse	<u>Capsella bursa-pastoris</u>
Smartweed, Pennsylvania	<u>Polygonum pennsylvanicum</u>

6/90

(10/10)

Common Name

Scientific Name

Spurge, Annual  
Spurge, Prostrate  
Woodsorrel, Yellow  
Velvetleaf (Buttonweed)

Euphorbia spp.  
Euphorbia matriculata  
Oxalis stricta  
Abutilon theophrasti

BEST AVAILABLE COPY