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01/26/2001

PENDULUM WDG herbicide water dispersible granule

FOR USE IN TURFGRASSES, ORNAMENTALS, LANDSCAPE OR GROUNDS MAINTENANCE, AND NONCROPLAND AREAS

ACTIVE INGREDIENT:

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine	60.0%
INERT INGREDIENTS	
TOTAL	
(1.2 oz. contains .72 oz. of pendimethalin)	
(10 lbs, contains 6 lbs, of pendimethalin)	

(13.2 lbs. contains 7.9 lbs. of pendimethalin)

EPA Reg. No. 241-340

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EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION!

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

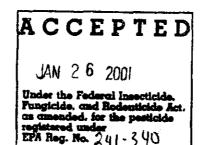
FIRST AID

If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If swallowed:	Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or for going for treatment.

In case of emergency endangering life or property involving this product, call day or night, 800-832-HELP (4357).

See Inside Leaflet For Additional Precautionary Statements and Directions For Use.



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Net Contents:

PENDULUM WDG herbicide

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PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS CAUTION

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

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

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

Follow manufacturer's instructions for cleaning and 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.
- 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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. 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.

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.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to turf or ornaraentals. DO NOT APPLY PENDULUM WDG herbicide in greenhouses, shadehouses or other enclosed structures

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.

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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 24 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
- 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 or allow others to enter the treated area until sprays have dried.

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

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

CONTAINER

DISPOSAL: Paper container:

Completely empty bag into application equipment. DO NOT reuse. 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.

Plastic container:

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or 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.

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

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 BASF Corporation (BASF). All such risks shall be assumed by the user.

BASF 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.

BASF makes no other express or implied warranty, including other express or implied warranty of FITNESS or of MERCHANTABILITY

GENERAL INFORMATION

PENDULUM WDG herbicide provides preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any turfgrass site (lawns, sod, turf areas). Examples of such sites include, but are not limited to: grounds or lawns around residential and commercial establishments, multifamily dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries; golf courses; prairiegrass areas; and sod farms.

PENDULUM WDG herbicide can also be used in and around field, liner, and container grown ornamental nurseries; established landscape ornamentals and ornamental gardens; listed groundcovers and bulbs; nonbearing fruit and nut trees; conifer and hardwood seedling nurseries; and for tree plantation site preparation and maintenance.

In addition, PENDULUM WDG herbicide can be applied for general grounds maintenance around areas such as parking lots, driveways and roadsides, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, mulch beds and other similar areas. It may be used under asphalt or concrete treatments as part of a site preparation program.

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PENDULUM WDG herbicide is recommended for preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any noncropland area such as railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; bridge abutments and approaches; utility substations; petroleum tank farms; pumping installations; storage areas; fence rows; windbreaks and shelterbelts; paved or gravel surfaces; established wildflower plantings, and other similar areas where weed control is desired.

PENDULUM WDG herbicide controls weeds as they germinate, but will not control established weeds. Therefore, areas to be treated should be free of established weeds. For the control of established weeds, PENDULUM WDG herbicide may be used in conjunction with herbicides registered for postemergence use. Consult the labels of those herbicides for use rates, timings, and precautions or restrictions.

Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

The efficacy of PENDULUM WDG herbicide will improve if the application is followed by onehalf inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM WDG herbicide is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Applied according to label directions and under normal growing conditions, FENDULUM WDG herbicide or PENDULUM WDG herbicide tank-mix combinations will not cause crop injury. Over-application can result in crop stand loss, crop injury, or soil residues. Unever application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants, and increase the possibility of plant damage from PENDULUM WDG herbicide.

PENDULUM WDG herbicide may cause temporary discoloration of sprayed surfaces. Rinse immediately to avoid staining. Spray colorants or dyes can be added to alter the color of the spray solution to match the treated surfaces.

MIXING INSTRUCTIONS FOR PENDULUM WDG HERBICIDE

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Respective sections of this leaflet define recommended PENDULUM WDG herbicide or PENDULUM WDG herbicide registered tank-mix treatments. Always allow water soluble packets to dissolve before agitating.

Ground Driven Sprayer:

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- 1. Begin with a clean spray tank. Fill tank one-half to three-quarters full with clean water.
- 2. PENDULUM WDG herbicide Alone

When using PENDULUM WDG herbicide alone, either premix (1 part product + 2 parts water) or slowly add PENDULUM WDG herbicide to the partially filled tank while agitating until completely dispersed. Fill the remainder of the tank with water.

- 3. PENDULUM WDG herbicide tank mixes
 - a. Wettable Powder Formulations
 - 1) When using PENDULUM WDG herbicide with a wettable powder formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
 - 2) When PENDULUM WDG herbicide is properly mixed, add a slurry of the wettable powder (1 part WP + 2 parts water) slowly into the tank. Fill the remainder of the tank while agitating.
 - b. Flowable Formulations
 - 1) When using PENDULUM WDG herbicide with a flowable formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
 - 2) When PENDULUM WDG herbicide is properly mixed, premix one part of the flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.
 - c. Emulsifiable Concentrate Formulations
 - 1) When using PENDULUM WDG herbicide with an emulsifiable concentrate formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
 - 2) When PENDULUM WDG herbicide is properly mixed, premix one part of the emulsifiable concentrate with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

d. Dry Flowable (Water Dispersible Granule) Formulations

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1) When using PENDULUM WDG herbicide with a dry flowable formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.

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- 2) When PENDULUM WDG herbicide is properly mixed, premix one part of the dry flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.
- 4. MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES AND UNTIL SPRAYING IS COMPLETED. 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.

Backpack Sprayer: Begin with a clean spray tank. Fill the spray tank $\frac{1}{2}$ full with clean water and add the required amount of PENDULUM WDG herbicide to the sprayer. When using water soluble packets, allow packet to dissolve before agitating. Cap sprayer and agitate to ensure mixing. Uncap sprayer and finish filling tank to desired level. Cap sprayer and agitate once again. During application it is desirable to agitate the mixture on occasion to ensure mixing. 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.

Liquid Fertilizers: Prior to mixing, small quantities should always be tested using a simple jar test. Add the required amount of PENDULUM WDG herbicide to half filled spray tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

Dry Bulk Fertilizers: PENDULUM WDG herbicide may be impregnated on dry bulk fertilizers. When applied as directed, PENDULUM WDG herbicide/Dry Bulk Fertilizer mixtures provide weed control equal to that provided by the same rates of PENDULUM WDG herbicide applied in water.

SPRAYING INSTRUCTIONS FOR PENDULUM WDG HERBICIDE

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 40 gallons of water per acre). Low pressure (e.g., 20-40 psi) sprayers are recommended.

Maintain continuous agitation during spraying with good mechanical or bypass agitation. Nozzle screens must be no finer than 50 mesh (100 mesh is finer than 50 mesh). Check sprayer routinely to determine proper calibration. Avoid overlaps that will increase rates above those recommended.

Avoid application when winds may cause drift.

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

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APPLICATION RATES FOR WEED CONTROL

Turfgrass Species	Weeds	Rates of PENDULUM WDG herbicide	Comments
COOL SEASON GRASSES			
Bluegrass, Kentucky Fescue, fine Fescue, tall Ryegrass, perennial	crabgrass foxtail <u>Poa annua</u> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	2.5 - 3.4 lbs./acre as the initial application prior to weed germination in the spring.	Apply a repeat application of 1.7 - 2.5 lbs./acre after 5 - 8 weeks for extended control or where heavy weed infestations are expected.
	goosegrass	Residential Turf Uses Only: 2.5 - 3.4 lbs./acre in the spring prior to weed germination.	Apply a repeat Application in 5 – 8 weeks of 2.5 lbs/acre if the lower rate was used initially or for extended goosegrass control.
		Commercial and Other Non- Residential Turf Uses Only: 2.5 – 5.0 lbs./acre in the spring prior to weed germination	
	cudweed <u>Poa annua</u> chickweed lawn burweed henbit corn speedwell	2.5 - 3.4 lbs./acre	Apply in late summer or early fall prior to weed germination.

Bentgrass or established <u>Poa annua</u>² (1/2 inch height or taller)

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crabgrass foxtail <u>Poa annua</u> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover

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2.5 lbs./acre in the spring prior to weed germination.

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Apply a repeat application of 1.7 -2.5 lbs./acre after 5 - 8 weeks where heavy weed infestations are expected.

goosegrass	2.5 lbs./acrein the spring priorto weed germination.Apply a repeatapplication of2.5 lbs./acreafter 5 - 8 weeks.	
cudweed <u>Poa annua</u> chickweed lawn burweed henbit corn speedwell	2.5 - 3.4 lbs./acre	Apply in late summer or early fall prior to weed germination.

WARM SEASON			
GRASSES Bahiagrass Bermudagrass Buffalograss Centipedegrass Fescue, tall St. Augustinegrass Zoysiagrass	crabgrass foxtail <u>Poa annua</u> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	Residential Turf Use Only: 2.5 – 3.4 lbs./acre prior to weed germination in the spring.	Apply a repeat application 1.7 – 2.5 lbs./acre after 5 – 8 weeks if necessary.
ς.		Commercial and Other Non- Residential Turf Uses Only: 2.5 – 5.0 lbs./acre prior to weed germination in the spring.	
	goosegrass	 2.5 lbs./acre prior to weed germination in the spring. Apply a repeat application of 2.5-3.4 lbs./acre after 5 - 8 weeks. 	An additional application of 2.5 lbs./acre may be applied for extended goosegrass control 8 weeks after the second application.
	cudweed <u>Poa annua</u> chickweed lawn burweed henbit corn speedwell	2.5 - 3.4 lbs./acre	Apply in late summer or early fall prior to weed germination
Bermudagrass greens	crabgrass foxtail <u>Poa annua</u> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	2.5 lbs./acre prior to weed germination.	Apply a repeat application of 2.5 lbs./acre after 5 - 8 weeks if recessary.

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goosegrass	2.5-3.4 lbs./acre prior to weed germination. Apply a repeat application of 2.5 lbs./acre after 5 - 8 weeks.	
cudweed <u>Poa annua</u> chickweed lawn burweed henbit corn speedwell	2.5 - 3.4 lbs./acre	Apply in late summer or early fall prior to weed germination

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¹ DO NOT exceed a maxium rate of 3.4 pounds per acre per application for use on residential turfgrass.

DO NOT exceed a maxium rate of 5.0 pounds per acre per application for use on commercial or other non-residential turfgrass.

² Not for use on bentgrass or <u>Poa annua</u> greens or tees.

The efficacy of PENDULUM WDG herbicide will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM WDG herbicide is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

TURFGRASS TANK MIXES

PENDULUM WDG herbicide can be mixed with postemergence herbicides to control emerged weeds in turfgrasses. For annual grass control, applications can be made with Acclaim Extra¹ or MSMA to control emerged weeds. Broadleaf weeds can be controlled using Trimec², Three-Way³, 2-4,D, and other similar products.

Before tank mixing a simple jar test is recommended to insure compatibility of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with PENDULUM WDG herbicide and follow those that are most restrictive.

TURFGRASS PRECAUTIONS

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Use on well established turfgrass with a dense and uniform stand. On newly planted areas, application should not be made until the turfgrass has filled in and has been mowed at least four times. On turf that has been thinned or damaged due to winter injury, excessive moisture, etc., allow for turf recovery prior to making an application.

Applications made to overseeded warm-season turfgrasses may cause thinning or injury of the overseeded species.

Do not use on bentgrass or <u>Poa annua</u> greens and tees or injury may occur.

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Delay reseeding or winter overseeding of treated turfgrass for at least three (3) months following the last PENDULUM application. Delay sprigging turfgrass for five (5) months after application.

INDUSTRIAL (UNIMPROVED) TURF

Industrial, or unimproved turf areas often have a different spectrum of weeds to be controlled than those found in fine turf as described elsewhere in this leaflet. PENDULUM WDG herbicide will control annual grasses and broadleaf weeds mentioned in that section of this label as well as the following weeds when they germinate in established grasses in rights-of-way, roadsides, constuction sites, parks, substations, lots, or similar areas:

Crowfootgrass, Itchgrass, Johnsongrass (from seed), Junglerice, Lovegrass (from seed), Browntop Panicum, Texas Panicum, Field Sandbur, Signalgrass, Mexican Sprangletop, Red Sprangletop, Witchgrass, Woolly Cupgrass, Carpetweed, Fiddleneck, Filaree, Kochia, Lambsquarters, Pigweed, Puncturevine, Florida Pusley, London Rocket, Shepherdspurse, Pennsylvania Smartweed, Annual Spurge, and Velvetleaf.

Apply before weeds germinate. A postemergence herbicide such as 2,4-D, MSMA, or similar products may be tank mixed to control established weeds. Apply according to label instructions for the respective products and follow the most restrictive wording.

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ORNAMENTALS

RECOMMENDED SPECIES

PENDULUM WDG herbicide sprays are safe around and over the top of the established plants listed below.

Refer to APPLICATION RATE TABLE for rates.

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TREES

Common Name Scientific Name Alder, European Black Alnus glutinosa Malus spp. Apple Arborvitae, American Thuja occidentalis Arbutus Arbutus spp. Fraxinus pennsylvanica Ash, Red Ash, White Fraxinus americana Aspen, Bigtooth Populus grandidentata Aspen, Quaking Populus tremuloides Basswood Tilia spp. Birch, European Weeping Betula pendula Birch, River Betula nigra Buckeye, Red Aesculus pavia Cedar, White Thuja occidentalis Chamaecyparis, Boulevard Chamaecyparis pisifera Cherry, Black Prunus serotina Cherry, Choke Prunus virginiana Cherry, Kwanzan Prunus serrulata Cherry, Nanking Prunus tomentosa Cottonwood Populus deltoides Malus spp. Crabapple Lagerstroemia indica Crepe Myrtle Cryptomeria, Japanese Cedar Cryptomeria japonica Cypress, Bald Taxodium distichum Cypress, Leyland Cupressocyparis leylandii Dogwood, Flowering Cornus florida Dogwood, Korean Cornus kousa Dogwood, Silky Cornus amomum Dogwood, Shrub Cornus spp. Elm Ulmus japonica <u>Ulmus alate</u> Elm, Winged Eucalyptus (Silver-dollar) tree Eucallyptus cinera Fir, Balsam Abies balsamee Fir, Douglas Pseudotsuga menziesii Fir, Fraser Abies fraseri Fir, White Abies concolor Franklinia Franklinia spp. Chlonenthus retusus Fringe tree

Ginkgo Gum, Black Gum. Sour Haw, Black Hawthorn Hemlock, Canada Hemlock, Eastern Holly, American Honeylocust Lilac, Common Lilac, Japanese Tree Linden Magnolia, Saucer Magnolia, Southern Magnolia, Star Maidenhair Tree Maple, Norway Maple, Japanese Maple, Red Maple, Sugar Nannyberry, Rusty Oak, Chinquapin Oak, Live Oak, Pin Oak, Red Oak, Swamp Chestnut Oak, Water Oak, White Oak, Willow Olive Palm. Date Palm. Fan Palm, Pindo Palm, Washington Peach Pear. Bradford Pecan Pine, Austrian Pine, Italian Stone Pine, Loblolly Pine, Monterey Pine. Red Pine, Scotch Pine, Virginia Pine, White Plum, Purple Leaf Poplar, Black Redcedar, Eastern Redcedar, Western Red Ironbark

Ginkgo biloba Nyssa sylvatica Nyssa sylvatica Viburnum prunifolium Crataegus spp. Tsuga canadensis Tsuga canadensis Ilex opaca Gleditsia triacanthos Syringa vulgaris Syringa reticulata Tilia spp. Magnolia soulangiana Magnolia grandiflora Magnolia stellata Ginkgo biloba Acer platanoides Acer palmatum Acer rubrum Acer saccharum Viburnum rufidulum Quercus muehlenbergii Ouercus virginiana Quercus palustris Ouercus rubra Ouercus michauxii Ouercus nigra Quercus alba Ouercus phellos Olea europaea Phoenix spp. Washingtonia spp. Butia spp. Washingtonia spp. Prunus persica Pyrus calleryana 'Bradford' Carya illinoensis Pinus nigra Pinus pinea Pinus taeda Pinus radiata Pinus resinosa Pinus sylvesais Pinus virginiana Pinus strobus Prunus cerzsifera Populus nigra Juniperus virginiana Thuja plicata Eucalyptus sideroxylon 'Rosea'

9/29/00

Redwood, Dawn Sequoia, Giant Serviceberry Sourwood Spruce, Colorado Blue Spruce, Dwarf Alberta Spruce, Norway Spruce, White Sweetgum Sycamore Trachycarpus Tulip tree Walnut, Black Willow, Weeping Yellowwood

SHRUBS

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<u>Common Name</u>

Abelia, Glossy Alder, Witch Aucuba, Gold Azalea Bamboo, Heavenly Barberry Barberry, Japanese Blue Indigo Bush Bottlebrush, Lemon Boxwood, Common Boxwood, Japanese Brittlebush Buttonbush Camellia Cape Jasmine Cassia, Feathery Cordyline Correa Cotoneaster Cotoneaster, Bayberry Cotoneaster, Rock Cypress, Italian Cypress, Leyland Deutzia, Slender Dogwood, Red Twig Elaeagnus Escallonia Euonymus Euonymus, Golden

Metasequoia glyptostroboides Sequoiadendron giganteum Amelanchier laevis Oxydendrum arboreum Picea pungens Picea glauca 'albertiana' Picea abies Picea glauca Liquidambar styraciflua Platanus occidentalis Trachycarpus spp: Liriodendron tulipifera Juglans nigra Salix babylonica Cladrastis lutea

Scientific Name

Abelia grandiflora Fothergilla gardenii Aucuba japonica Rhododendron sp. Nandina domestica Berberis gladwynensis Berberis thunbergii Dalea gregii Callistemon citrinus Buxus sempervirens Buxus microphylla Encelia farinosa Cephalanthus occidentalis Camellia japonica Gardenia jasminoides Cassia artemisioides Cordyline spp. Correa spp. Cotoneaster apiculatus Cotoneaster dammeri Cotoneaster horizontalis Cupressus sempervirens Cupressocyoaris levlandii Deutzia gracilis Cornus sericea Elaeagnus ebbingei Escallonia fradesii Euonymus fortunei Euonymus japonica

Euonymus, Winged Firethorn Forsythia, Border Fragrant Olive Fuschia, California Gardenia Hawthorne, Indian Hibiscus Holly, Chinese Holly, Japanese Holly, Fosters Holly, Savannah Holly, Yaupon Honeysuckle, Bush Hopseed Bush Hopbush Hydrangea Juniper Juniper, Chinese Juniper, Shore Juniper, Trailing Laurel, Cherry Laurel, Mountain Laurel, Otto Luyken Laurel, Schipka Laurustinus Lavender, English Leucothoe Leucothoe. Coast Lilac, Cut-leaf Lily-of-the-Nile Mahonia Mock Orange Myrtle, Compact Myrtle, Wax Nandina Oleander Oregon Grape Osmanthus Palm, European Fan Palm, Mediterranean Fan Phlox, Prickly Photinia, Fraser Pieris, Japanese Pine, Mugo Plum, Natal Privet, California Privet, Glossy Privet, Variegated Privet, Waxleaf

Euonymus alata Pyracantha coccinea Forsythia intermedia Osmanthus fragrans Zauschineria californica Gardenia jasminoides Raphiolepis indica Hibiscus syriacus Ilex cornuta Ilex crenata Ilex attenuata 'Fosteri' Ilex attenuata Ilex vomitoria Diervilla lonicera Dodonaea viscosa Dodonaea viscosa Hydrangea macrophylla Juniperus sp. Juniperus chinensis v. pfitzer Juniperus conferta Juniperus horizontalis Prunus laurocerasus Kalmia latifolia Prunus laurocerasus Prunus schipkanensis Viburnum tinus Lavandula angustifolia Leucothoe fontanesiana Leucothoe axillaris Syringa laciniata Agapanthus africanus Mahonia aquifolium Pittosporum tobira Myrtus communis Myrica cerifera Nandina domestica Nerium oleander Mahonia aquifolium Osmanthus fragrans Chamaerops humilis Chamaeroos spp. Leptodactylon californicum Photinia X Fraseri Pieris japonica Pinus mugo Carissa grandiflora Ligustrum ovalifolium Ligustrum lucidum Ligustrum sinensis Ligustrum japonicum

Pyracantha Quince, Flowering Ranger, Texas Redroot Rhododendron Robira Rose Spice Plant Spiraea Spiraea, Anthony Waterer Spiraea, Japanese Sweet Bay Trumpet Bush Verbena, Lemon Viburnum Vitex Weigela Wild Lilac Wisteria Xylosma Yellowbells Yew Yew, Japanese Yew, Southern Yucca, Adam's Needle Yucca, Weeping

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GROUND COVERS

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Common Name

Ajuga Baby Sun Rose Beach Strawberry Capeweed Cinquefoil, Spring Coyotebrush, Dwarf Daisy, Trailing African Dymondia Gazania Iceplant, Large Leaf Ivy, English Ivy, Geranium Jasmine, Asiatic Jasmine, Primrose Jessamine, Carolina Manzanita, Bearberry Miscanthus Mondograss Morninglory

Pvracantha coccinea Chaenomeles japonica Leucophyllum frutescens Ceanothus spp. Rhododendron spp. Pittosporum tobira Rosa spp. Illicium parviflorum Spiraea vanhouttei Spiraea X bumalda Spiraea japonica Laurus nobilis Tecoma stans Aloysia triphylla Viburnum <u>suspensum</u> Vitex spp. Weigela florida Ceanothus spp. Wisteria spp. Xylosma congestum Tecoma stans Taxus media Taxus cuspidata Podocarpus macrophyllus Yucca filamentosa Yucca pendula

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Scientific Name

Ajuga reptans Aptenia cordifolia Fragaria chiloensis Arctotheca calendula Potentilla verna Baccharis pitularis Osteospermum fruticosum Dymondia margaretae Gazania splendens Carpobroaus edulis Hedera helix Pelargonium peltatum Trachelospermum asizticum Jasminum mesnyi Gelsemium sempervirens Arctostaphylos uva-ursi Miscanthus spp. Ophiopogon japonica Convolvulus spp.

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Myoporum Pachysandra Potentilla Red Apple Rosemary Rose-Of-Sharon Sand Strawberry Sedum St. Johnswort, Creeping Stonecrop Verbena, Peruvian Vervain Verch, Crown Vinca Wintercreeper

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PERENNIALS

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Common Name

Acacia Asparagus Aster, New York Aster, Stokes Astilibe (False Spirea) Avens Babys Breath **Babys Breath** Beard-Tongue Bellflower Bellflower, Willow Bird of Paradise Black-eyed Susan Blanket Flower Blanket Flower **Bleeding Heart** Butterfly Weed California Poppy Calla Lily Canna, Common Garden Carex Chincherinchee Clover, Crimson Columbine Columbine Coreopsis (tickseed) Crinum Lily Crocus Daffodil Daylily

Myoporum parviflolium Pachysandra terminalis Potentilla fruticosa Aptenia cordifolia Rosemarinus officinalis Hypericum calycinum Fragaria chiloensis Sedum spurium Hypericum calycinum Sedum spurium Verbena peruviana Verbena peruviana Vicia sativa Vinca minor Euonymous fortunei

Scientific Name

Acacia redolens Asparagus spp. Aster novi-belgii Stokesia laevis Astilibe spp. Geum triflorum Gypsophila elegans Gypsophila paniculata Penstemon spp. Campanula spp. Campanula persicifolia Caesalpinia pulcherrima Rudbeckia hirta Gaillardia aristata Gaillardia x grandiflora Dicentra spectabilis Asclepias tuberosa Eschscholzia california Zantedeschia aethiopica Canna generalis 'Lucifer' Carex spp. Ornithogatum thyrsoides Trifolium incanatum Aquilegia 'McKana Giant' Aquilegia'x irvorida Coreopsis lanceolata Crinum spp. Crocus spp. Narcissus spp. Hemerocallis spp.

Fiary Duster Fern, Asparagus Fern, Boston Fern, Hay-scented Fern. Leatherleaf* Fortnight Lily Foxglove Freesia Gaillardia Geum Gladiolus Heather, Dwarf Hosta Indian Blanket Iris, Japanese Lantana, Weeping Leopards Bane Lilv Liriope, Big Blue Liriope, Creeping Liriope, Variegated Moonbeam Montbretia Mugwort, Western Nightshade Orchid, Peacock Oxeve Daisy Palm. Areca Palm, Pygmy Date Palm, Washington Peony, Chinese Purple Coneflower Purple Gay-feather Purple Loosestrife Rodgersia Rosemary Sedge Shasta Daisy Statice Statice, German Sweet Flag Tickseed Texas Bluebonnet Tulip Wonder Flower Yarrow Zephyr Lily

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Calliandra eriophylla Asparagus officinalis Nephrolepis exaltata Dennstaedtia punctilobula Rumohra adiantiformis Moraea spp. Digitalis purpurea Freesia x hybrida Gaillardia pulchella Geum spp. Gladiolus spp. Calluna vulgaris Hosta spp. Gaillardia pulchella Iris kaemphera Lantana montevidensis Doronicum cordatum Lillium spp. Liriope muscari Liriope spicata Liriope muscari Coreopsis verticillata Crocosmia crocosmiiflora Artemesia ludoviciana Solanum spp. Acidanthera bicolor Chrysanthemum leucanthemum Chysalidocarpus lutescens Phoenix roebelence Washington robusta Paeonia lactiflora Echinacea purpurea Liatris pycnostachys Lythrum virgatum Rodgersia henricie Rosmarinus officinalis Carex spp. Chrysanthemum x superbum Limonium latifolia Goniolimon tartaricum Acorus calernus Coreopsis lanceolata Lupinus texeris Tulipa spp. Ornithoga'um thyrsoides Achillea millefolium Zephyranthes spp.

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* Applications of PENDULUM WDG herbicide to immature ferns (during periods of new growth of fronds) may result in some injury.

ORNAMENTAL GRASSES

Common Name

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Beach Grass Fescue, Blue Fescue, Sheep Fountain Grass Pampas Grass Reed Canary Grass Reed, Giant Ribbon Grass Tufted Hair Grass

BEDDING PLANTS

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Common Name

Ageratum Alyssum* Anemone, Poppy-flowered Artemesia Balloonflower Begonia* Cabbage, Ornamental Caladium Cast-Iron Plant China Aster* Crocosmia, Montebretia Dahlia* Dianthus Dusty Miller Gavfeather Gazania, Treasure Flower Gazania, Trailing Gloxinia Kale, Ornamental Marigold, African Moss Rose* Mum. Garden Pansy Periwinkle* Periwinkle, Rose Petunia* Plumosa Cockscomb Portulaca* Salvia* Snapdragon Statice* Sweet William Vinca*

Scientific Name

Ammophila breviligulata Festuca ovina Festuca ovina Pennisetum setaceum Cortaderia selloana Phalaris arundinacea Arundo spp. Phalaris arundinacea Deschampsia caespitosa

Scientific Name

Ageratum houstonianum Alyssum saxatile Anemone coronaria Artemesia spp. Platycodon grandiflorum Begonia spp. Brassica olereacea Caladium spp. Aspidistra elatior Callistephus chinensis Crocosmia x crocosmiiflora Dahlia spp. Dianthus barbatus Senecio cineraria Liatris spp. Gazania rigens Gazania rigens leucolaena Gloxinia simningia Brassica napus Tagetes erecta Portulaca grandiflora Chrysanthemum spp Viola tricolor Vinca major Catharanthus roseus Petunia spp. Celosia cristata Portulaca grandiflora Salvia splendens Antirrhinum majus Limonium spp. Dianthus barbatus Vinca major

*Application of PENDULUM WDG herbicide should not be made sooner than four weeks after transplanting these annuals. Use the lower labeled rate.

PENDULUM WDG herbicide may be used on plant species not listed on this label. The suitability for such uses should be determined by treating a small number of such plants at the recommended rate. Treated plants should be evaluated 1-2 months following treatment for possible injury. THE USER ASSUMES RESPONSIBILITY FOR ANY CROP DAMAGE OR OTHER LIABILITY.

Do not treat plants grown for food or feed. Do not use treated plants for food or feed.

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ORNAMENTAL BULBS

PENDULUM WDG herbicide may be applied for control of susceptible annual weeds in ornamental bulbs listed on the label (crocus, daffodil (narcissus), gladiolus, tulip, etc.). Apply PENDULUM WDG herbicide prior to, during or after bulb emergence. If weeds have already germinated add a labeled postemergence herbicide to control emerged weeds.

WILDFLOWERS

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PENDULUM WDG herbicide may be applied for control of susceptible annual weeds in plantings of wildflowers listed on the label (Black-eyed Susan, California Poppy, Coreopsis, Oxeye Daisy, etc.). PENDULUM WDG herbicide may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply PENDULUM WDG herbicide after wildflowers have emerged but prior to weed germination. If weeds have already germinated, add a labeled postemergence product to control emerged weeds.

Due to the diversity of species and varieties which exist in areas where wildflowers are grown, the response to PENDULUM WDG herbicide may vary greatly. Careful testing on desirable species is recommended to determine if area-wide applications can be made.

ORNAMENTAL TANK MIXES

Emerged weeds in ornamentals can be controlled using tank mixes containing Roundup PRO⁴, Finale¹, Ornamec², Gallery⁵, Princep⁷, and other similar products. Do not apply sprays containing Roundup PRO or Finale over the top of ornamental plants.

Before tank mixing a simple jar test is recommended to insure compatibility of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with PENDULUM WDG herbicide and follow those that are most restrictive.

ORNAMENTAL PRECAUTIONS

Apply PENDULUM WDG herbicide to established plantings. DELAY applying PENDULUM WDG herbicide to seedbeds, transplant beds, or liners until plants have become well rooted. 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 PENDULUM WDG herbicide with roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and ornamental tolerance. Plant only those desirable plant species listed on this label into soil treated the previous season with PENDULUM WDG herbicide or injury may occur.

For container grown ornamentals, delay first application of this product to bareroot liners 2-4 weeks after transplanting.

DO NOT APPLY PENDULUM WDG herbicide in greenhouses, shadehouses or other enclosed structures.

LANDSCAPE AND GROUNDS MAINTENANCE5

PENDULUM WDG herbicide can be incorporated into landscape and grounds maintenance programs to provide extended preemergence control of most annual grasses and certain broadleaf weeds. Areas to be treated, such as mulch beds, parking areas and roadsides, fencelines and borders, around statuary or monuments, and similar areas, should be free of emerged weeds before application. To remove emerged weeds either cultivate or tankmix PENDULUM WDG herbicide with a postemergence product labeled for such use.

Refer to APPLICATION RATE TABLE for rates. Avoid unintentional contact of spray solution with stone, wood, or other porous surfaces as staining may occur. Rinse immediately to avoid staining.

NON-BEARING FRUIT AND NUT CROPS AND VINEYARDS

PENDULUM WDG herbicide may be applied for preemergence control of most annual grasses and certain broadleaf weeds on the following non-bearing crops:

Almond	Olive
Apple	Peach
Apricot	Pear
Cherry	Pecan
Citrus	Pistachio
Fig	Plum
Grape	Prune
Nectarine	Walnut, English

Refer to APPLICATION RATE TABLE for rates.

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Apply the spray directly to the ground below the trees or vines. 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 PENDULUM WDG herbicide and roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and plant tolerance. For newly transplanted and one year old grapevines, apply only when they are dormant. Do not apply if buds have started to swell. PENDULUM WDG herbicide may be used where the roots of a fruit, vine, nut, or ornamental plant encroach into a treatable area.

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NONCROPLAND AREAS INCLUDING TREE PLANTATIONS

PENDULUM WDG herbicide is recommended for grounds maintenance in noncropland areas; preemergence control of the weed species listed in and around established tree plantations (including Christmas trees); in and around established ornamentals planted in noncropland areas such as highway rights-of-way, and utility substations. PENDULUM WDG herbicide may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas.

Refer to APPLICATION RATE TABLE for rates.

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PENDULUM WDG herbicide may be applied at planting or to established trees. When making an application at planting, it is important that slit closure be achieved to prevent PENDULUM WDG from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur.

For postemergence control of weeds, tank-mix combinations of PENDULUM WDG herbicide plus Roundup PRO, Finale, or other labeled herbicides are recommended. Refer to approved labeling for species recommendations. Recommended rates for the tank-mix compounds should be determined from the product labels of both PENDULUM WDG herbicide and partner herbicides prior to use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. PENDULUM WDG herbicide plus **diuron** or **simazine** combinations will broaden weed control spectrum, however, use of combinations may restrict PENDULUM WDG herbicide usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use and follow those that are most restrictive.

TOTAL VEGETATIVE CONTROL

PENDULUM WDG herbicide may be tank mixed with ARSENAL[®], Roundup PRO, Karmex⁶, Finale, Oust⁶, diuron, or other products to provide bare ground, or total vegetation control. PENDULUM WDG herbicide can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals, or desirable trees encroaching into the treated zone. Refer to tankmix partner labels regarding effects on desirable plants. **DO NOT tank mix with ARSENAL in California.**

Applications may be made to existing weeds controlled by the partner herbicide. Recommended rates should be determined from the product labels prior to use. Follow the most restrictive label instructions.

For Kochia: combinations of PENDULUM WDG herbicide with ARSENAL or diuron are recommended if control has been a problem for other herbicides.

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APPLICATION RATE TABLE

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For preemergence control of the weed species listed using broadcast spray equipment, apply PENDULUM WDG herbicide at the following rates:

			1.2 oz. soluble bag
Length of Control	Pounds required to treat 1 acre	Ounces required to treat 1000 sq.ft.	Number of bags to treat 1,000 square feet
Short Term (2-4 months)	3.3 lbs.	1.2 oz.	1
Long Term (6-8 months)	6.6 lbs.	2.4 oz.	2

Hand-held Spray Equipment:

Use the table above to determine the amount of PENDULUM WDG herbicide to be applied per 1000 square feet. The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff. Calibration of backpack or other hand-held equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow mixing instructions discussed elsewhere on this label.

The efficacy of PENDULUM WDG herbicide will improve if the application is followed by onehalf inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM WDG herbicide is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

PENDULUM WDG herbicide will not control established weeds.

If weeds should develop prior to activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. PENDULUM WDG herbicide may be used in conjunction with herbicides registered for postemergence use (i.e. Roundup or Finale) for the control of established weeds. Do not apply sprays containing Roundup PRO or Finale over the top of desirable plants. A PENDULUM WDG herbicide treatment may be followed by any registered herbicide to control weeds not listed on the PENDULUM WDG herbicide label.

WEED SPECIES CONTROLLED

PENDULUM WDG herbicide is recommended for preemergence control of the weed species listed. Applications can be made around and over the top of the ornamentals and to the cites listed on this label.

GRASSES CONTROLLED

<u>Common Name</u>

Barnyardgrass Bluegrass, Annual Crabgrass Crowfootgrass Foxtail, Giant Foxtail, Green Foxtail, Yellow Goosegrass Itchgrass Johnsongrass (from seed) Junglerice Lovegrass (from seed) Panicum, Browntop Panicum, Fall Panicum, Texas Sandbur, Field Signalgrass Sprangletop, Mexican Sprangletop, Red Witchgrass Woolly Cupgrass

BROADLEAF WEEDS CONTROLLED

Common Name

Burweed, Lawn Carpetweed Chickweed, Common Chickweed, Mouseear Clover, Hop Cudweed Evening primrose Fiddleneck Filaree Henbit Knotweed, prostrate Kochia Lambsquarters Pigweed Puncturevine Purslane Pusley, Florida Rocket, London

Scientific Name

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Echinochloa crus-galli Poa annua Digitaria spp. Dactyloctenium aegyptium Setaria faberi Setaria viridis Setaria glauca Eleusine indica Rottboellia exaltata Sorghum halepense Echinochloa colona Eragrostis spp. Panicum fasciculatum Panicum dichotomiflorum Panicum texanum Cenchrus incertus Brachiaria platyphylla Leptochloa uninervia Leptochloa filiformis Panicum capillare Eriochloa villosa

Scientific Name

Soliva pterosperma Mollugo verticillata Stellaria media Cerastium vulgatum Trifolium procumbens Gnaphalium spp. Oenothera biennis Amsinckia intermedia Erodium spp. Lamium amplexicaule Polygonum aviculare Kochia scoparia Chenopodium album Amaranthus spr. Tribulus terrestris Portulaca oleracea Richardia scabra Sisymbrium irio

Shepherdspurse Smartweed, Pennsylvania Speedwell, Corn Spurge, Annual Spurge, Prostrate Woodsorrel, Yellow Velvetleaf (Buttonweed) Capsella bursa-pastoris Polygonum pensylvanicum Veronica arvensis Euphorbia spp. Euphorbia numistrata Oxalis stricta Abutilon theophrasti

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¹Trademark of Aventis Corporation

² Trademark of PBI Gordon Corp.

³ Trademark of Lesco, Inc.

⁴ Trademark of Monsanto Company

⁵ Trademark of Dow AgroSciences

⁶ Trademark of E. I. duPont de Nemours and Company

⁷ Trademark of Novartis Crop Protection, Inc.

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