



LICENSED

PERIOD 2014-2016 LIC. NO.

9556.68
Disc.



LICENSED

PERIOD 2011-2013 LIC. NO.

LICENSED
HAWAII
DEPT. OF AGRICULTURE
Rev. Period 2005-2007 No. 9556.68



Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD 2008-2010 LIC. NO.

1253-G_q5.qxd 9/3/04 2:22 PM Page 1

BLACK

DATE: 9/02/04

PRODUCT SIZE: -

NAME: ENVOY Herbicide
KIND: pamphlet

FINISHED SIZE: 6-3/8" x 4-1/4" open;
3-3/16" x 4-1/4" closed

4-1/4"



Envoy®

HERBICIDE



Active Ingredient By Wt.
*Clethodim 12.6%
Other Ingredients 87.4%
Total 100.0%
Contains Petroleum Distillates
(E)-2-[1-[[[3-chloro-2-propenyl]oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one
Contains 0.94 lbs. clethodim per gal.
U.S. Pat. No. 4,440,566; RE-32,489

KEEP OUT OF REACH OF CHILDREN
WARNING - AVISO
SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

3-3/16"

RECEIVED
OCT 12 2004
Pesticides Branch

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye injury. Causes skin irritation. Harmful if swallowed or inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 or clothing:** 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:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
- If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

(continued)

2

(continued)

NOTE TO PHYSICIANS

Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. If ingested, probable mucosal damage may contraindicate the use of gastric lavage.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

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

Applicators and other handlers must wear: Coveralls over short-sleeved shirt and short pants, chemical-resistant gloves, such as Barrier Laminate or Viton \geq 14 mils, chemical-resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure and chemical-resistant apron when cleaning equipment, mixing, or loading.

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.
- 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

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

3

The use of this product may pose a hazard to the federally designated endangered species of Solano Grass and Wild Rice. Use of this product is prohibited in the following areas where the species are known to exist:
Solano Grass: Solano County, California: the vernal lakes area bounded by the Union Pacific Railroad and Hastings Road to the north, Highway 113 to the east, Highway 12 to the south, and Travis Air Force Base to the west.

Wild Rice: Hays County, Texas.
PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL AND HANG TAG. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 24 hours. (continued)

(continued)

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 over short-sleeved shirt and short pants, chemical-resistant gloves, such as Barrier Laminate or Viton ≥ 14 mils, chemical-resistant footwear plus socks, protective eyewear and chemical-resistant headgear for overhead exposure.

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.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

Do not enter treated areas without protective clothing until sprays have dried.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended (continued)

(continued)

risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in

(continued)

6

(continued)

accordance with the label and subject to the Risks of Using This Product as described above. EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

If Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

7

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.
Read and follow the entire label of each product to be used in the tank mix with this product.

GENERAL INFORMATION

Do not apply this product through any irrigation system.

FOR USE ON: Conifer Trees, Ornamentals, Non-Bearing Food Crops, and Non-Crop or Non-Planted Areas.

ENVOY is a selective postemergence herbicide for control of annual and perennial grasses. ENVOY does not control sedges or broadleaf weeds.

Repeated use of ENVOY (or similar postemergence grass herbicide with the same mode of action) may lead to the selection of naturally occurring biotypes that are resistant to these products in some grass species.

If poor performance occurs and cannot be attributed to adverse weather or applications conditions, a resistant biotype may be present. This is most likely to occur in fields where other control strategies such as crop rotation, mechanical removal, and other classes of herbicides are not used from year to year.

Do not allow ENVOY to come in contact with desirable grass crops such as corn, rice, sorghum, small grains, or turf, as these and other grass crops will be injured or killed.

Minor leaf spotting may occur on treated plants under certain environmental conditions. New foliage is not affected.

Control Symptoms

Treated grass weeds show a reduction in vigor and growth. Early chlorosis/necrosis of younger plant tissue is followed by a progressive collapse of the remaining foliage. Symptoms will generally be observed in 7 to 14 days after application, depending on grass species treated and environmental conditions.

APPLICATION INFORMATION

Timing of Applications

Apply ENVOY postemergence to actively growing grasses according to rate table recommendations. Applications made to grass plants stressed by insufficient moisture, hot or cold temperatures, or to grass plants exceeding recommended growth stages may result in unsatisfactory control. Do not apply under these conditions.

In arid regions where irrigation is used to supplement limited rainfall, ENVOY should be applied as soon as possible after irrigation (within 7 days). In arid regions, a second application of ENVOY will generally provide more effective control of perennial grass weeds than a single application. Make second application to actively growing grass 2 to 3 weeks after emergence of new growth.

Cultivation of treated grasses 7 days prior to or within 7 days after application of ENVOY may reduce weed control. DO NOT APPLY ENVOY if rainfall is expected within one hour, since control may be reduced.

ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

CROP	ADJUVANT RECOMMENDATIONS
Ornamental Plants, Non-Bearing Food Crops	Add non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v). Use of crop oil concentrate is not recommended since it may injure flowers and foliage.
Conifer Trees, Non-Crop or Non-Planted Areas	Always use a crop oil concentrate* containing at least 15% emulsifier at 1% v/v (but not less than 1 pt./A) in the finished spray volume.

* Acceptable crop oil concentrates would be those that contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

Ground Application

Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Use a minimum of 5 gals. and a maximum of 40 gals. of spray solution per acre. Under the following conditions a minimum of 10 gals. per acre is required: perennial grasses, volunteer corn, drought or stress conditions, heavy grass pressure or when grasses are at or near maximum height. Failure to use a minimum of 10 gals. per acre under these conditions can result in poor coverage and reduced grass control requiring repeat applications. Spray pressures should reflect a minimum of 30 psi and a maximum of 60 psi at the nozzle. Do not use flood nozzles.

Air Application

Use a minimum of 3 gals. of spray solution per acre unless otherwise directed in this label. Increase spray volumes up to 10 gals. as grass or crop foliage becomes dense.

Spot Treatment

When using hand sprayers or high volume sprayers utilizing hand guns, mix 1/2% to 1% (0.65 oz. to 1.3 oz. per gal.) ENVOY and treat to wet vegetation, while not allowing runoff of spray solution. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz. per gal.) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at 1/4% (0.33 oz. per gal.) by volume.

NOTE: If ENVOY is applied as a spot treatment, care should be taken to not exceed the maximum rate allowed on a "per acre" basis or crop injury may occur.

RESTRICTIONS AND LIMITATIONS

GENERAL

Do not apply if rain is expected within 1 hour of application as control may be unsatisfactory.

Do not apply a postemergence broadleaf herbicide within one day following application of ENVOY or reduced grass control may result.

10

Do not apply more than 68 fl. oz. of ENVOY (0.5 lb. ai) per acre per season. Application on Long Island, New York, is restricted to no more than 34 fl. oz. of ENVOY (0.25 lb. ai.) per acre per season.

Do not apply more than 17 fl. oz./A of ENVOY per application to non-bearing food crops. **Exceeding this recommendation may result in unacceptable crop injury.**

Do not apply under conditions of stress. Applying ENVOY under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity, and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate ENVOY effectively, and will be less susceptible to herbicide activity.

Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (discing, plowing, etc.) to stimulate maximum emergence of grass shoots. Cultural practices, such as continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, results in a very staggered, non-uniform weed emergence. Due to this non-uniform weed emergence, no fewer than 2 ENVOY applications per season per year are recommended at the appropriate weed-growth stage rate under continuous no-till conditions.

Grass crops such as corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to ENVOY.

Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.

Tank mixes of ENVOY and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs an additional application of ENVOY may be necessary.

AVOID SPRAY DRIFT

Do not allow spray from ground or aerial equipment to drift onto adja-

11

cent land or crops. When drift may be a problem, do everything possible to reduce spray drift, including:

- Do not spray if wind speeds are or become excessive.
- Do not spray if wind speed is 10 MPH or greater. If sensitive crops or plants are downwind, extreme caution must be used under all conditions.
- Do not spray if winds are gusty.
- Use extreme caution when conditions are favorable for drift (high temperatures, drought, low relative humidity), especially when sensitive plants are located nearby.
- Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.
- Further reductions in drift can be obtained by:
 1. Using large droplet size sprays. Do not use nozzles that produce small droplets. Orient nozzles downward and slightly backward as needed to reduce drift for ground applications.
 2. Orienting nozzles straight back with the windstream, using straight stream orifices for aerial applications. Use the lowest number of nozzles practical with the largest possible orifice size to obtain the minimum 3 GPA volume. Application height and boom length should be set according to manufacturer's instructions to minimize drift.
 3. Increasing the volume of spray mixture (for example a minimum of 10 GPA for ground applications) by using higher flow rate nozzles. Using lower pressure with the appropriate nozzle to obtain higher volumes will also reduce drift.
 4. Apply as close to target plants as practical while maintaining a good spray pattern for adequate coverage.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

CROP-SPECIFIC RESTRICTIONS AND LIMITATIONS FOR ENVOY

Crops	Minimum Time From Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rate Per Acre ⁽¹⁾	Special Use Instructions
Conifer Trees Non-Crop or Non-Planted Areas	N/A	13-34 fl. oz.	1% v/v (but not less than 1 pt./A) in the finished spray volume using a crop oil concentrate containing at least 15% emulsifier.	Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop.
Ornamentals Non-Bearing Food Crops	N/A	13-34 fl. oz. 13-17 fl. oz. ⁽²⁾	Use of crop oil concentrate is not recommended since it may injure flowers and foliage. See Special Use Instructions.	Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v). Sugar maples cannot be tapped for syrup within one year of ENVOY application.

⁽¹⁾ Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. See the Addition of Adjuvant and Crop Oil Concentrate section for further information.

⁽²⁾ If ENVOY is applied as a spot treatment to non-bearing food crops, care should be taken to not exceed the maximum rate allowed on a "per acre" basis or crop injury may occur.

DIRECTIONS FOR USE IN ORNAMENTALS

For ornamental plant uses, ENVOY can be used to control labeled grass weeds in greenhouses, lathhouses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plantings, and structure landscapes.

IMPORTANT

ENVOY successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant tolerance to ENVOY at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is recommended that the user determine if herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of ENVOY have investigated the safety factor to ornamental plants not listed on the label.

The following plants have shown a tolerance for ENVOY applications:

COMMON NAME	ORNAMENTAL TREES	SCIENTIFIC NAME
Alder, Red		<i>Alnus rubra</i>
Ash		<i>Fraxinus</i> spp.
Basswood		<i>Tilia</i> spp.
Birch, European White		<i>Betula pendula</i>
Birch, River		<i>Betula nigra</i>
Birch, White		<i>Betula papyrifera</i>
Crabapple, Flowering		<i>Malus halliana</i>
Dogwood, Flowering		<i>Cornus florida</i>
Golden Chain Tree		<i>Laburnum anagyroides</i>
Maples		<i>Acer</i> spp.
Mulberry, White		<i>Morus alba</i>
Oaks		<i>Quercus</i> spp.
Olive, Wild		<i>Elaeagnus angustifolia</i>
Redbud, Eastern		<i>Cercis canadensis</i>
Sweet Gum, American		<i>Liquidambar styraciflua</i>

GROUND COVERS**COMMON NAME**

Bugleweed, Carpet
Ivy, English
Japanese Spurge
Lilyturf
Moneywort
Mondo Grass, White
Mondo Grass, Dwarf
Periwinkle, Lesser

SCIENTIFIC NAME

Ajuga reptans
Hedera helix
Pachysandra terminalis
Liriope muscari
Lysimachia nummularia
Ophiopogon jaburan
Ophiopogon japonicus
Vinca minor

GARDEN FLOWERS AND PLANTS**COMMON NAME**

Ageratum
Alyssum*, Sweet
Asparagus Fern
Bleeding Heart
Cast Iron Plant
Chrysanthemum
Cinquefoil
Coleus
Coralbells
Cranesbill
Dahlia
Daisy, Trailing African
Daylily
Dusty Miller
Euonymus
Gazania
Geranium, House
Heather, False
Hosta
Iris
Jasmine Tobacco
Loosestrife

SCIENTIFIC NAME

Ageratum spp.
Lobularia maritima
Asparagus setaceus
Dicentra spectabilis
Aspidistra elatior
Chrysanthemum spp.
Potentilla spp.
Coleus spp.
Heuchera sanguinea
Geranium spp.
Dahlia spp.
Osteospermum fruticosum
Hemerocallis spp.
Senecio cineraria
Euonymus spp.
Gazania spp.
Pelargonium hortorum
Cuphea hyssopifolia
Hosta fortunei
Hosta fortunei
Iris spp.
Nicotiana glauca
Lythrum salicaria

(continued)

GARDEN FLOWERS AND PLANTS (continued)

COMMON NAME	SCIENTIFIC NAME
Marigold	<i>Tagetes</i> spp.
Partridgeberry	<i>Mitchella repens</i>
Petunia*	<i>Petunia hybrida</i>
Phlox	<i>Phlox</i> spp.
Pinks	<i>Dianthus</i> spp.
Portulaca	<i>Portulaca grandiflora</i>
Salvia	<i>Salvia</i> spp.
Saxifrage	<i>Saxifraga</i> spp.
Sedum	<i>Sedum</i> spp.
Selloum	<i>Philodendron selloum</i>
Snapdragon*	<i>Antirrhinum majus</i>
Sweet Flag	<i>Lacorus gramineus</i>
Tickseed	<i>Coreopsis grandiflora</i>
Touch-me-not	<i>Impatiens</i> spp.
Verbena	<i>Verbena</i> spp.
Violet	<i>Viola</i> spp.
Yarrow, Common	<i>Achillea millefolium</i>
Zinnia	<i>Zinnia elegans</i>

*Slight foliage or flower speckling has been observed on these species.

SHRUBS

COMMON NAME	SCIENTIFIC NAME
Abelia	<i>Abelia</i> spp.
Anise, Purple	<i>Illicium floridanum</i>
Aucuba	<i>Aucuba</i> spp.
Azalea*	<i>Rhododendron</i> spp.
Bamboo	<i>Bambusa</i> spp.
Barberry, Japanese	<i>Berberis thunbergii</i>
Barberry, Magellan	<i>Berberis buxifolia</i>
Bayberry	<i>Myrica pensylvanica</i>
Bottlebrush	<i>Callistemon citrinus</i>
Boxwood, Common	<i>Buxus sempervirens</i>

(continued)

SHRUBS (continued)

COMMON NAME	SCIENTIFIC NAME
Camellia, Common	<i>Camellia japonica</i>
Candytuft	<i>Iberis sempervirens</i>
Cleyera	<i>Cleyera japonica</i>
Coralberry	<i>Ardisia crenata</i>
Crape Myrtle	<i>Lagerstroemia indica</i>
Coyote Brush	<i>Baccharis pilularis</i>
Fig, Creeping	<i>Ficus pumila</i>
Gardenia	<i>Gardenia</i> spp.
Holly	<i>Ilex</i> spp.
Honeysuckle	<i>Lonicera</i> spp.
Indian Hawthorn	<i>Raphiolepis indica</i>
Jasmine	<i>Jasminum</i> spp.
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, Star	<i>Trachelospermum jasminoides</i>
Juniper	<i>Juniperus</i> spp.
Lantana	<i>Lantana</i> spp.
Nandina*, Heavenly Bamboo	<i>Nandinia domestica</i>
Oleander, Common	<i>Nerium oleander</i>
Oregon Grape	<i>Mahonia aquifolium</i>
Photinia	<i>Photinia</i> spp.
Pittosporum	<i>Pittosporum</i> spp.
Podocarpus	<i>Podocarpus</i> spp.
Privet	<i>Ligustrum</i> spp.
Pyracantha	<i>Pyracantha</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Rose	<i>Rosa</i> spp.
Spirea	<i>Spiraea bumalda</i>
Sweet Olive	<i>Osmanthus fragrans</i>
Viburnum	<i>Viburnum tinus</i>
Wisteria	<i>Wisteria</i> spp.
Yellow Sage/Shrub Verbena	<i>Lantana camara</i>

*Slight foliage or flower speckling has been observed on these species.

**RECOMMENDATIONS FOR ANNUAL GRASSES
IN ORNAMENTALS**

- Apply only to actively growing grasses at recommended weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL OZ./ ACRE ⁽¹⁾	HIGH RATE ⁽²⁾
Barnyardgrass	<i>Echinochloa crus-galli</i>	2-8	17	34
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2-6	17	34
Brome				
California	<i>Bromus carinatus</i>	2-6	17	34
Cheat	<i>Bromus secalinus</i>	2-6	17	34
Downy	<i>Bromus tectorum</i>	2-6	17	34
Ripgut	<i>Bromus diandrus</i>	2-6	17	34
Canarygrass	<i>Phalaris canariensis</i>	1-4	17	34
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2-6**	17	34
Large	<i>Digitaria sanguinalis</i>	2-6**	17	34
Smooth	<i>Digitaria ischaemum</i>	2-6**	17	34
Southern	<i>Digitaria ciliaris</i>	2-6**	17	34
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2-6**	17	34
Fall Panicum	<i>Panicum dichotomiflorum</i>	2-8	17	34

(continued)

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

⁽¹⁾ 17 fl. oz./acre = approximately 0.4 fl. oz./1000 sq. ft.⁽²⁾ 34 fl. oz./acre = approximately 0.8 fl. oz./1000 sq. ft.

Add non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

(continued)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL OZ./ ACRE ⁽¹⁾	HIGH RATE ⁽²⁾
Field Sandbur	<i>Cenchrus incertus</i>	2-6	17	34
Foxtail				
Giant	<i>Setaria faberi</i>	2-12	17	34
Green	<i>Setaria viridis</i>	2-8	17	34
Yellow	<i>Setaria glauca</i>	2-8	17	34
Goosegrass	<i>Eleusine indica</i>	2-6**	17	34
Itchgrass	<i>Rottboellia cochinchinensis</i>	2-6	17	34
Junglerice	<i>Echinochloa colona</i>	2-6	17	34
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2-6	17	34
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1-4	17	34
Red Rice	<i>Oryza sativa</i>	1-3	17	34
Ryegrass				
Hardy	<i>Lolium remotum</i>	2-6	17	34
Italian	<i>Lolium multiflorum</i>	2-6	17	34
Seedling				
Johnsongrass	<i>Sorghum halepense</i>	4-10	17	34
Shattercane	<i>Sorghum bicolor</i>	6-18	17	34
Southwestern				
Cupgrass	<i>Eriochloa gracilis</i>	2-6	17	34
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2-6	17	34
Bearded	<i>Leptochloa fascicularis</i>	2-6	17	34
Mexican	<i>Leptochloa uninervis</i>	2-6	17	34
Red	<i>Leptochloa filiformis</i>	2-6	17	34

(continued)

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

⁽¹⁾ 17 fl. oz./acre = approximately 0.4 fl. oz./1000 sq. ft.⁽²⁾ 34 fl. oz./acre = approximately 0.8 fl. oz./1000 sq. ft.

Add non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

(continued)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL OZ./ ACRE ⁽¹⁾	HIGH RATE ⁽²⁾
Texas Panicum	<i>Panicum texanum</i>	2-6	17	34
Volunteer Cereals				
Barley	<i>Hordeum vulgare</i>	2-6	17	34
Oats	<i>Avena sativa</i>	2-6	17	34
Rye	<i>Secale cereale</i>	2-6	17	34
Wheat	<i>Triticum aestivum</i>	2-6	17	34
Volunteer Corn	<i>Zea mays</i>	4-12	13	17
Volunteer Corn	<i>Zea mays</i>	12-24	17	34
Volunteer Grain				
Sorghum	<i>Sorghum bicolor</i>	8-12	17	34
Wild Oats	<i>Avena fatua</i>	2-6	17	34
Wild Proso				
Millet	<i>Panicum miliaceum</i>	2-10	17	34
Witchgrass	<i>Panicum capillare</i>	2-8	17	34
Woolly Cupgrass	<i>Eriochloa villosa</i>	2-8	17	34

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

⁽¹⁾ 17 fl. oz./acre = approximately 0.4 fl. oz./1000 sq. ft.⁽²⁾ 34 fl. oz./acre = approximately 0.8 fl. oz./1000 sq. ft.

Add non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

RECOMMENDATIONS FOR ANNUAL BLUEGRASS CONTROL WITH ENVOY IN ORNAMENTALS

GRASS SPECIES	WEED STAGE	RATE FL OZ./ ACRE	HIGH RATE
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	13	34

Apply under favorable soil moisture and humidity that exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s).

Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.

Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.

Add non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

RECOMMENDATIONS FOR PERENNIAL GRASSES IN ORNAMENTALS

- Apply only to actively growing grasses at recommended weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE ⁽¹⁾	HIGH RATE ⁽²⁾
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	17	34
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	17	34
Foxtail Barley (<i>Hordeum jubatum</i>)			
First Application	2-6	17	34
Repeat Application(s) (if regrowth occurs)	2-6	17	34
Quackgrass (<i>Elytrigia repens</i>)			
First Application	4-8	17	34
Repeat Application(s) (if regrowth occurs)	4-8	17	34
Rhizome Johnsongrass (<i>Sorghum halepense</i>)			
First Application	12-24	17	34
Repeat Application(s) (if regrowth occurs)	6-18	13	17
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)			
First Application	4-8	17	34
Repeat Application(s) (if regrowth occurs)	4-8	17	34

⁽¹⁾ 17 fl. oz./acre = approximately 0.4 fl. oz./1000 sq. ft.

⁽²⁾ 34 fl. oz./acre = approximately 0.8 fl. oz./1000 sq. ft.

Add non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

DIRECTIONS FOR USE IN CONIFER TREES, NON-BEARING FOOD CROPS AND NON-CROP OR NON-PLANTED AREAS

IMPORTANT

Plant tolerance to ENVOY at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is recommended that the user determine if the herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of ENVOY have investigated the safety factor to plants not listed on the label.

The following plants have shown a tolerance for ENVOY applications:

CONIFER TREES

ENVOY can be used to control labelled grasses in Christmas tree farms, conifer nurseries and conifer plantations (but not in forests).

COMMON NAME	SCIENTIFIC NAME
Arborvitae, American	<i>Thuja occidentalis</i>
Cedars	<i>Cedrus</i> spp.
Cypress	<i>Taxodium</i> spp.
Fir, Douglas	<i>Pseudotsuga menziesii</i>
Firs	<i>Abies</i> spp.
Hemlock, Canadian/Eastern	<i>Tsuga canadensis</i>
Hemlock, Western	<i>Tsuga heterophylla</i>
Pines	<i>Pinus</i> spp.
Spruces	<i>Picea</i> spp.
Yew	<i>Taxus</i> spp.

NON-BEARING FOOD CROPS

ENVOY SHOULD NOT BE APPLIED TO NON-BEARING FRUIT OR NUT CROPS WHICH ARE GROWN FOR ROOT STOCK.

Crop injury to non-bearing fruit and nut crops can occur if ENVOY is improperly applied. ENVOY should not be applied directly over the top of these plant types. Instead spray should be directed at the base of the plant where grassy weeds are growing near the ground.

Non-bearing fruit and nut crops are plants which will not bear fruit or nuts for at least one year following ENVOY application.

COMMON NAME	SCIENTIFIC NAME
Apples	<i>Malus</i> spp.
Berries	<i>Vaccinium</i> spp.
Cherry, Sweet	<i>Rubus</i> spp.
Citrus Fruits	<i>Prunus avium</i>
Grapes	<i>Citrus</i> spp.
Olives	<i>Vitis</i> spp.
Peach	<i>Olea</i> spp.
Pears	<i>Prunus persica</i>
Prunes	<i>Pyrus communis</i>
Stone Fruits	<i>Prunus</i> spp.
Strawberries	<i>Prunus</i> spp.
Tree Nuts	<i>Fragaria</i> spp.
Almond	<i>Prunus triloba</i>
Filbert	<i>Corylus maxima</i>
Pecan	<i>Carya illinoensis</i>
Pistachio	<i>Pistacia vera</i>
Walnut	<i>Juglans</i> spp.

NON-CROP OR NON-PLANTED AREAS

The following areas are considered non-crop or non-planted areas:
Rights-of-way including railroads, highways, roads, dividers, medians, pipelines, public utility lines, pumping stations, transformer stations and substations. Around airports, electric utilities, commercial buildings, manufacturing plants, storage yards, rail yards, fence lines, parkways. Also beneath greenhouse benches, and around golf courses.

RECOMMENDATIONS FOR ANNUAL GRASSES

- Apply only to actively growing grasses at recommended weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.
- Do not apply more than 17 fl. oz./A of ENVOY per application to non-bearing food crops.

24

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./ ACRE	HIGH RATE ⁽⁴⁾
Barnyardgrass	<i>Echinochloa crus-galli</i>	2-8	13	17
Broadleaf				
Signalgrass	<i>Brachiaria platyphylla</i>	2-6	13	17
Brome				
California	<i>Bromus carinatus</i>	2-6	13	17
Cheat	<i>Bromus secalinus</i>	2-6	13	17
Downy	<i>Bromus tectorum</i>	2-6	13	17
Ripgut	<i>Bromus diandrus</i>	2-6	13	17
Canarygrass	<i>Phalaris canariensis</i>	1-4	13	17
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2-6**	13	17
Large	<i>Digitaria sanguinalis</i>	2-6**	13	17
Smooth	<i>Digitaria ischaemum</i>	2-6**	13	17
Southern	<i>Digitaria ciliaris</i>	2-6**	13	17
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2-6**	13	17
Fall Panicum	<i>Panicum dichotomiflorum</i>	2-8	13	17
Field Sandbur	<i>Cenchrus incertus</i>	2-6	13	17
Foxtail				
Giant	<i>Setaria faberi</i>	2-12	13	17
Green	<i>Setaria viridis</i>	2-8	13	17
Yellow	<i>Setaria glauca</i>	2-8	13	17
Goosegrass	<i>Eleusine indica</i>	2-6**	13	17

(continued)

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

⁽⁴⁾ Rates higher than 17 fl. oz./A may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 17 to 34 fl. oz./A may be applied. Do not apply more than 17 fl. oz./A of ENVOY per application to non-bearing food crops.

25

(continued)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./ ACRE	HIGH RATE ⁽⁴⁾
Itchgrass	<i>Rottboellia cochinchinensis</i>	2-6	13	17
Junglerice	<i>Echinochloa colona</i>	2-6	13	17
Lovegrass (Sinkgrass)	<i>Eragrostis cilianensis</i>	2-6	13	17
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1-4	13	17
Red Rice	<i>Oryza sativa</i>	1-3	13	17
Ryegrass				
Hardy	<i>Lolium remotum</i>	2-6	13	17
Italian	<i>Lolium multiflorum</i>	2-6	13	17
Seedling				
Johnsongrass	<i>Sorghum halepense</i>	4-10	13	17
Shattercane	<i>Sorghum bicolor</i>	6-18	13	17
Southwestern				
Cupgrass	<i>Eriochloa gracilis</i>	2-6	13	17
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2-6	13	17
Bearded	<i>Leptochloa fascicularis</i>	2-6	13	17
Mexican	<i>Leptochloa uninervis</i>	2-6	13	17
Red	<i>Leptochloa filiformis</i>	2-6	13	17
Texas Panicum	<i>Panicum texanum</i>	2-6	13	17

(continued)

- * Generally occurs between 3-leaf stage and tillering.
- ⁽⁴⁾ Rates higher than 17 fl. oz./A may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 17 to 34 fl. oz./A may be applied. Do not apply more than 17 fl. oz./A of ENVOY per application to non-bearing food crops.

(continued)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./ ACRE	HIGH RATE ⁽⁴⁾
Volunteer Cereals ⁽³⁾				
Barley	<i>Hordeum vulgare</i>	2-6	13	17
Oats	<i>Avena sativa</i>	2-6	13	17
Rye	<i>Secale cereale</i>	2-6	13	17
Wheat	<i>Triticum aestivum</i>	2-6	13	17
Volunteer Corn ⁽²⁾	<i>Zea mays</i>	4-12	9	13
Volunteer Corn(S.R.) ⁽¹⁾	<i>Zea mays</i>	4-12	17	(suppression only)
Volunteer Corn ⁽²⁾	<i>Zea mays</i>	12-24	13	17
Volunteer Grain				
Sorghum	<i>Sorghum bicolor</i>	8-12	13	17
Wild Oats	<i>Avena fatua</i>	2-6	13	17
Wild Proso Millet	<i>Panicum miliaceum</i>	2-10	13	17
Witchgrass	<i>Panicum capillare</i>	2-8	13	17
Woolly Cupgrass	<i>Eriochloa villosa</i>	2-8	13	17

- * Generally occurs between 3-leaf stage and tillering.
- ⁽¹⁾ Sethoxydim resistant volunteer corn.
- ⁽²⁾ Includes ROUNDUP Ready®, Liberty Link® and IMI-CORN® volunteer corn.
- ⁽³⁾ When the cereal grain crop (such as wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum ENVOY use rate for control is 17 fl. oz./A.
- ⁽⁴⁾ Rates higher than 17 fl. oz./A may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 17 to 34 fl. oz./A may be applied. Do not apply more than 17 fl. oz./A of ENVOY per application to non-bearing food crops.

RECOMMENDATIONS FOR ANNUAL BLUEGRASS CONTROL WITH ENVOY			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	13	34
Apply under favorable soil moisture and humidity which exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s).			
Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.			
Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.			
Always add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			

RECOMMENDATIONS FOR PERENNIAL GRASSES

- Apply only to actively growing grasses at recommended weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.
- Do not apply more than 17 fl. oz./A of ENVOY per application to non-bearing food crops.

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE	HIGH RATE
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	17	34
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	17	34
Fescue, Tall (<i>Festuca arundinacea</i>)			
First Application	4-8	17	34
Repeat Application(s) (if regrowth occurs)	4-8	17	34
Foxtail Barley (<i>Hordeum jubatum</i>)			
First Application	2-6	17	34
Repeat Application(s) (if regrowth occurs)	2-6	17	34
Orchardgrass (<i>Dactylis glomerata</i>)			
First Application	4-8	17	34
Repeat Application(s) (if regrowth occurs)	4-8	17	34
Quackgrass* (<i>Elytrigia repens</i>)			
First Application	4-12	17	34
Repeat Application(s) (if regrowth occurs)	4-12	17	34
Rhizome Johnsongrass (<i>Sorghum halepense</i>)			
First Application	12-24	17	34
Repeat Application(s) (if regrowth occurs)	6-18	13	17

(continued)

(continued)

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE	HIGH RATE
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)			
First Application	4-8	17	34
Repeat Application(s) (if regrowth occurs)	4-8	17	34
Perennial Bluegrass*			
Roughstalk Kentucky (<i>Poa trivialis</i>)			
First Application	2-4	17	34
Repeat Application(s) (if regrowth occurs)	2-4	17	34
Bentgrass* (<i>Agrostis</i> spp.)			
First Application	2-4	-	34
Repeat Application(s) (if regrowth occurs)	2-4	-	34

* Control of quackgrass, perennial bluegrass and bentgrass with ENVOY may be enhanced by adding AMS at 2.5 to 4.0 lbs./A.

STORAGE AND DISPOSAL

PROHIBITIONS

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

Open dumping is prohibited.

PESTICIDE STORAGE

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Store in cool, dry place.

Do not store diluted spray.

Emergency Response: For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099.

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

Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Copyright © 2004 by Valent U.S.A. Corporation

ENVOY® – Reg. TM of Valent U.S.A. Corporation.

IMI-CORN® – Reg. TM of American Cyanamid Co.

LIBERTY LINK® – Reg. TM of The Aventis Group.

ROUND-UP READY® – Reg. TM of Monsanto Company.



Manufactured for
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek CA 94596-8025
www.valent.com
Form 1253-G
Made in U.S.A.
EPA Reg. No. 59639-78

