

TRUSTED SINCE 1926

**BONIDE®**

# GRASS BEATER®

Over-the-top grass killer

Concentrate



**ACTIVE INGREDIENT:**

Sethoxydim: 2-[1-ethoxyimino] butyl]-  
5-[2-(ethylthio) propyl]-3-hydroxy-2-  
cyclohexen-1-one\* ..... 13%

**OTHER INGREDIENTS:** ..... 87%

**TOTAL:** ..... 100%

\*Equivalent to 1 pound of sethoxydim per gallon  
formulated as an emulsifiable concentrate

Contains petroleum distillate

EPA Est. No. 4-NY-1 EPA Reg. No. 7969-88-4

Keep Out Of Reach Of Children

## CAUTION/ PRECAUCIÓN

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.)

(See Back Panel for Additional  
Precautionary Statements & First Aid)

**Net Contents 8 FL.OZ. (236.5 ML)**



7458

# GRASS BEATER OVER-THE-TOP GRASS KILLER CONCENTRATE

EPA Est. No. 4-NY-1 EPA Reg. No. 7969-88-4

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Distributed by

Bonide Products, Inc.

6301 Sutliff Road

Oriskany, NY 13424

BN



8 fl. oz.

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give any liquid to the person.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

*(continued)*

### **FIRST AID *(continued)***

#### **If inhaled**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

### **NOTE TO PHYSICIAN**

May pose an aspiration pneumonia hazard.  
Contains petroleum distillate.

### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information on pesticide products (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

### **PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye injury. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing.

## **Personal Protective Equipment (PPE)**

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category E** on an EPA chemical-resistance category-selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as or made of any waterproof material
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## **Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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 aquatic organisms. For terrestrial uses, **DO NOT** apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters.

### Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law. This pesticide is toxic to vascular plants and should be used strictly in accordance with drift precautions on this label in order to minimize offsite exposures.

## DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements

specific to your state or tribe, consult the agency responsible for pesticide regulation. Unless otherwise stated in supplemental labeling, all applicable directions, restrictions and precautions are to be followed. This labeling must be in the user's possession during application.

### **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 production of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

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

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

## **Steps to be taken in case materials released or spilled**

Wear the personal protective equipment specified on this label. Recover the material for reuse according to label whenever possible. Cover the liquid with an absorbent material (such as pet litter). Sweep up and place in an appropriate container for disposal. Remove and wash clothing and personal protective equipment prior to reuse. Keep the spill out of all sewers and open bodies of water.

## **General Information**

This product is a selective, broad spectrum, postemergence herbicide for control of annual and perennial grass weeds. This product does not control sedges or broadleaf weeds. Essentially, all grass crops, such as sorghum, corn, small grains, and rice, as well as ornamental grasses, such as turf, are susceptible to this product.

## **Mode of Action**

This product rapidly enters the target weed through its foliage and translocates throughout the plant. The effects range from slowing or stopping growth (generally within 2 days), to foliage reddening and leaf tip burn. Subsequently, foliage burnback may occur. These symptoms will generally be observed within 3 weeks depending on environmental conditions.

## **Crop Tolerance**

All labeled crops are tolerant to this product at all stages of growth.

## **Application Instructions**

Applications can be made to actively growing weeds as broadcast or band applications at the rates and growth stages listed in **Tables 1, 2** and



**3, unless instructed differently in Crop-specific Information.** The most effective control will result from making postemergence applications of this product early, when weeds are small. Delaying application permits weeds to exceed the maximum size stated and may prevent adequate control.

Apply this product to the foliage of grasses uniformly and completely because large leaf canopies shelter smaller weeds and can prevent adequate spray coverage. **DO NOT** spray to the point of runoff.

## **Spray Drift Management**

### **General Information Pertaining to Ground Applications**

Make ground application when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured to the application site on the upwind side immediately prior to application. **DO NOT** make ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. When permissible by local regulations, the applicator may detect the presence of an inversion by the producing smoke and observing a smoke layer near the ground surface.

All ground application equipment must be properly maintained and calibrated using appropriate carriers.

## **Additives**

To achieve consistent weed control, always use one of the following additives: **Dash HC**, **Sundance HC**, methylated/modified seed oil, or crop oil concentrate. In addition, urea ammonium nitrate or ammonium sulfate is recommended for use on alfalfa, beans, cotton, flax, peanuts, peas, potatoes, soybeans, field corn, sweet corn, sugar beets, and sunflowers to enhance activity on certain grass species. See **Table 4. Additive Rates Per 1000 sq. ft.** for more information. However, when used in many vegetable crops under the following conditions, this product plus adjuvants should be used with caution due to potential crop leaf injury: when the temperature exceeds 90° F and the relative humidity is 60% or greater, or anytime the temperature exceeds 100° F, regardless of the humidity.

Because most nitrogen solutions are mildly corrosive to galvanized, mild steel, and brass spray equipment, rinse the entire spray system with water soon after use. UAN and AMS are not registered in California.

Consult a Bonide representative or local agricultural authority for more information on the use of additives.

### **Dash HC, Sundance HC, Crop Oil Concentrate, or Methylated Seed Oils**

A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- Non-phytotoxic
- Contain only EPA-exempt ingredients
- Provide good mixing quality in the jar test
- Successful in local experience

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality.

Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. For more information, see **Compatibility Test for Mix Components**. For most crops, **Dash HC** or **Sundance HC** may be substituted for crop oil concentrate or methylated seed oil; however, for some crops and tank mixes, Dash HC, Sundance HC and MSO are not recommended. (See **Crop-Specific Information** for more information.)

### **Nitrogen Source**

- **Urea Ammonium Nitrate (UAN):** Commonly referred to as 28%, 30%, or 32% nitrogen solution, UAN may be used in addition to **Dash HC**, **Sundance HC**, or crop oil concentrate to improve weed control. **DO NOT** use brass or aluminum nozzles when spraying UAN.
- **Ammonium Sulfate (AMS):** AMS per 1000 sq. ft. may be substituted for UAN. When liquid AMS is used, 2.2 fl. ozs. of 8-8-0 analysis may be substituted for 1 oz. of dry AMS. Use high-quality AMS (spray grade) to avoid plugging of nozzles. Other sources of nitrogen are not as effective as those mentioned. If the AMS is added directly to the spray tank, add slowly while agitating. Adding the mix too quickly may clog outlet lines. Be sure the AMS is completely dissolved before adding any other products. Bonide does not recommend applying AMS if applied in less than 1 Quart per 1000 sq. ft. because of potential problems with precipitation in reduced volumes.

UAN and AMS are not registered for use in California.

### **Mixing Order**

1. **Water.** Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
2. **Agitation.** Maintain constant agitation throughout mixing and application.
3. **Remaining quantity of water.**
4. **Emulsifiable concentrates** (or oil concentrate when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
5. **Water-soluble additives** (such as AMS or UAN when applicable). If an inductor is used, rinse it thoroughly after the component has been added.  
Maintain constant agitation during application.

**Table 1. Standard Application Rates and Timing – Annual Grasses**

All application rate and timing recommendations are based on growing region. Therefore, refer to the descriptions below to ensure application accuracy. Follow the **Application Rate and Timing** tables for your region only. Refer to **Table 5** for the maximum allowable use rates for specific crop and use sites.

Annual Grass	Midwest, South and Northeast		West and High and Rolling Plains	
	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)
Barnyardgrass	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Crabgrass, Large, <sup>1</sup>	6"	0.55 fl. ozs.	4"	0.83 fl. ozs.
Smooth <sup>1</sup>	6"	0.55 fl. ozs.	4"	0.83 fl. ozs.
Cupgrass, Southwestern,			8"	0.83 fl. ozs.
Woolly	8"	0.55 fl. ozs.		
Fescue, Tall (seedling)	6"	0.83 fl. ozs.		

(continued)

**Table 1. Standard Application Rates and Timing – Annual Grasses *(continued)***

Annual Grass	Midwest, South and Northeast		West and High and Rolling Plains	
	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)
Foxtail, Giant,	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Green,	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Yellow	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Goosegrass	6"	0.55 fl. ozs.	4"	0.83 fl. ozs.
Itchgrass	4"	1.1 fl. ozs.		
Johnsongrass (seedling)	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Junglerice	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Lovegrass	6"	0.83 fl. ozs.		
Millet, Wild Proso	10"	0.275 fl. ozs.	10"	0.55 fl. ozs.
Oats, Tame,	6"	0.83 fl. ozs.		
Wild <sup>1</sup>	4"	0.55 fl. ozs.	4"	0.83 fl. ozs.

*(continued)*

**Table 1. Standard Application Rates and Timing – Annual Grasses *(continued)***

Annual Grass	Midwest, South and Northeast		West and High and Rolling Plains	
	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)
Orchardgrass (seedling)	6"	0.83 fl. ozs.		
Panicum, Browntop,	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Fall,	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Texas	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Red Rice <sup>1</sup>	4"	1.1 fl. ozs.		
Ryegrass, Annual	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Sandbur, Field	3"	0.69 fl. ozs.		
Shattercane/Wildcane <sup>1</sup>	18"	0.55 fl. ozs.	18"	0.83 fl. ozs.
Signalgrass, Broadleaf	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Sprangletop, Red <sup>3</sup>	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Stinkgrass	6"	0.83 fl. ozs.		

*(continued)*

**Table 1. Standard Application Rates and Timing – Annual Grasses (*continued*)**

Annual Grass	Midwest, South and Northeast		West and High and Rolling Plains	
	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)
Volunteer <sup>2, 4</sup> Barley <sup>1</sup>	4"	0.83 fl. ozs.	4"	1.1 fl. ozs.
Corn <sup>1</sup>	20"	0.55 fl. ozs.	12"	0.83 fl. ozs.
Oats <sup>1</sup>	4"	0.83 fl. ozs.	4"	1.1 fl. ozs.
Rye <sup>1</sup>	4"	0.83 fl. ozs.	4"	1.1 fl. ozs.
Wheat <sup>1</sup>	4"	0.83 fl. ozs.	4"	1.1 fl. ozs.
Witchgrass <sup>1</sup>	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.

<sup>1</sup>Add nitrogen to the crop oil concentrate to improve grass control on indicated species.

<sup>2</sup>Apply this product before tillering.

<sup>3</sup>This product is not recommended for use on red sprangletop in California, Arizona, or western New Mexico.

<sup>4</sup>In the West Region, volunteer cereals that emerge from late spring through early summer (May through July) may be partially or incompletely controlled because of unfavorable conditions at application time.



## **Regional Descriptions**

**West and High and Rolling Plains.** An area of the western United States, including western Texas, Oklahoma and Kansas; west of a line running north from Del Rio to Gainesville, Texas, and extending along Interstate 35 to the Oklahoma-Kansas border; then west along border to Highway 83 and then north to the Kansas-Nebraska border; west to Colorado; all of Colorado to the Continental Divide; then west of the Continental Divide north to the US-Canada border.

**Midwest, South, and Northeast.** All other regions not listed above.

**Table 2. Standard Application Rates and Timing – Perennial Grasses**

All application rate and timing recommendations are based on growing region. Therefore, refer to the descriptions in **Table 1** to ensure application accuracy. Follow the **Application Rate and Timing** tables for your region only. Refer to **Table 5** for the maximum allowable use rates for specific crop and use sites.

Perennial Grass	Midwest, South and Northeast		West and High and Rolling Plains	
Standard Initial Application	Maximum Height	Rate Per 1,000 sq.ft. (fl. ozs.)	Maximum Height	Rate Per 1,000 sq. ft. (fl. ozs.)
Bermudagrass	6" stolon	0.83 fl. ozs.	6" stolon	1.1 fl. ozs.- 1.38 fl. ozs.
Guineagrass	8"	1.38 fl. ozs.		
Johnsongrass (Rhizome)	25"	0.83 fl. ozs.	10"	0.83 fl. ozs. - 1.38 fl. ozs.
Johnsongrass (No-Till)	20"	0.83 fl. ozs.		

*(continued)*

**Table 2. Standard Application Rates and Timing – Perennial Grasses (*continued*)**

<b>Perennial Grass (<i>continued</i>)</b>	<b>Midwest, South and Northeast</b>		<b>West and High and Rolling Plains</b>	
<b>Standard Initial Application</b>	<b>Maximum Height</b>	<b>Rate Per 1,000 sq.ft. (fl. ozs.)</b>	<b>Maximum Height</b>	<b>Rate Per 1,000 sq. ft. (fl. ozs.)</b>
Muhly, Wirestem	6"	0.69 fl. ozs.		
Quackgrass	8"	0.83 fl. ozs.	8"	1.38 fl. ozs.
Ryegrass, perennial	8"	0.83 fl. ozs.	8"	0.83 fl. ozs.
Torpedograss	8"	1.38 fl. ozs.		

*(continued)*

**Table 2. Standard Application Rates and Timing – Perennial Grasses (*continued*)**

<b>Sequential Application</b>	<b>Maximum Height</b>	<b>Rate Per 1,000 sq.ft. (fl. ozs.)</b>	<b>Maximum Height</b>	<b>Rate Per 1,000 sq. ft. (fl. ozs.)</b>
Bermudagrass	4" stolon	0.55 fl. ozs.	4" stolon	0.83 fl. ozs.
Guineagrass	8"	1.38 fl. ozs.		
Johnsongrass (Rhizome)	12"	0.55 fl. ozs.	8"	0.55 fl. ozs.- 0.83 fl. ozs.
Johnsongrass (No-Till)	12"	0.55 fl. ozs.		
Muhly, Wirestem	6"	0.69 fl. ozs.		
Quackgrass	8"	0.55 fl. ozs.	8"	0.83 fl. ozs.
Ryegrass, perennial	8"	0.83 fl. ozs.	8"	0.83 fl. ozs.
Torpedograss	8"	1.38 fl. ozs.		

**Table 3. Special Application Rates and Timing for Midwest, South and Northeast**

<b>Annual Grass</b>	<b>Special Early Maximum Height</b>	<b>Early Rate Per 1,000 sq. ft. (fl. ozs.)</b>	<b>Rescue Maximum Height</b>	<b>Rescue Rate Per 1,000 sq. ft. (fl. ozs.)</b>
Barnyardgrass	4"	0.41 fl. ozs. <sup>1</sup>	12"	0.83 fl. ozs.
Crabgrass, Large			8"	0.83 fl. ozs.
Smooth			8"	0.83 fl. ozs.
Foxtail, Giant <sup>1</sup> ,	4"	0.41 fl. ozs.	16"	0.83 fl. ozs.
Green,	4"	0.41 fl. ozs.	16"	0.83 fl. ozs.
Yellow			16"	0.83 fl. ozs.
Goosegrass	3"	0.41 fl. ozs.	8"	0.83 fl. ozs.
Johnsongrass (seedling)			16"	0.83 fl. ozs.
Millet, Wild Proso	10"	0.275 fl. ozs.	24"	0.55 fl. ozs.

*(continued)*

**Table 3. Special Application Rates and Timing for Midwest, South and Northeast (*continued*)**

<b>Annual Grass (<i>continued</i>)</b>	<b>Special Early Maximum Height</b>	<b>Early Rate Per 1,000 sq. ft. (fl. ozs.)</b>	<b>Rescue Maximum Height</b>	<b>Rescue Rate Per 1,000 sq. ft. (fl. ozs.)</b>
Panicum, Fall,	4"	0.41 fl. ozs.	12"	0.83 fl. ozs.
Texas	4"	0.41 fl. ozs.	12"	0.55 fl. ozs.
Singnalgrass, Broadleaf	4"	0.41 fl. ozs.	12"	0.83 fl. ozs.
Volunteer Corn	12"	0.41 fl. ozs.		

<sup>1</sup>In the following states use 0.55 fl. ozs.: AL, AR, FL, GA, LA, MS, NC, SC, TN, TX, and VA.

Table 4. Additive Rates Per 1,000 sq. ft.	
Additive	Ground Application
AMS	1 oz.
Dash® HC/Sundance® HC	0.37 fl. ozs.
Crop Oil Concentrate	0.73 fl. ozs.
Methylated Seed Oils (MSO)	0.55 fl. ozs.
UAN Solution	1.47 - 2.94 ozs.

### General Restrictions and Limitations – All Crops

- **Maximum seasonal use rate:** See Table 5 for crop-specific maximum seasonal use rates.
- **Preharvest Interval:** See Table 5 for crop-specific preharvest intervals.
- **Restricted-Entry Interval (REI): 12 hours**
- Avoid all direct or indirect contact with any desired grass crop unless otherwise recommended on this label.
- **Stress: DO NOT** apply to grasses or crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperature, as unsatisfactory control may result. In irrigated areas, it may be necessary to irrigate before application to ensure active weed growth.
- **DO NOT** apply to crops that show **injury** (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications because this injury may be enhanced or prolonged.
- **DO NOT** apply as a **preplant** or **preemergence treatment** before planting grass crops, such as corn, millet, or sorghum, unless otherwise specified on supplemental labeling.

- **DO NOT** use UAN or AMS in California.
- **DO NOT** use **selective application equipment** such as recirculating sprayers, wiper applicators, or shielded applicator.
- **Rainfast Period:** This product is rainfast 1 hour after application.
- **DO NOT** apply through any type of irrigation equipment.
- **DO NOT** plant other crops to be harvested for 30 days after application unless **Poast® herbicide**, **Poast Plus® herbicide**, or **Result® G herbicide** are registered for use on that crop.



**Table 5. Crop-specific Restrictions and Limitations for this product**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
Apricot	25 days	1.38 fl. ozs.	2.75 fl. ozs.	n/a
Artichoke, Globe	7 days	1.38 fl. ozs.	2.75 fl. ozs.	No
Asparagus	1 day	1.38 fl. ozs.	2.75 fl. ozs.	No
Avocado (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a
Beans <sup>1</sup> , Dry, Succulent	30 days	1.38 fl. ozs.	2.2 fl. ozs.	Yes
	15 days	1.38 fl. ozs.	2.2 fl. ozs.	Yes
Beet (Garden)	60 days	1.38 fl. ozs.	2.75 fl. ozs.	No

*(continued)*

**Table 5. (continued)**

Crop	Minimum Time From Application to Harvest (PHI)	Maximum Rate Per 1,000 sq. ft. Per Application	Maximum Rate Per 1,000 sq. ft. Per Season	Livestock Grazing or Feeding
Blueberry	30 days	1.38 fl. ozs.	2.75 fl. ozs.	No
<u>Brassica<sup>1</sup>, including:</u> Broccoli (including Chinese and Raab), Brussels Sprouts, Cabbage (Bok Choy, Chinese Mustard, Napa), Cauliflower, Collards, Kale, Kohlrabi, Mustard Greens, Rape Greens	30 days <sup>1</sup>	0.83 fl. ozs.	1.65 fl. ozs.	No

(continued)

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
<u>Bulb vegetables, including:</u> Garlic, Leek, Onion (Dry Bulb and Green), Shallot	30 days	0.83 fl. ozs.	2.48 fl. ozs.	No
<u>Caneberries<sup>1</sup>, including:</u> (All varieties and/or hybrids of these) Blackberry, Raspberry (Red, Black), Loganberry, Youngberry	45 days	1.38 fl. ozs.	2.75 fl. ozs.	No
Carrot	30 days	1.38 fl. ozs.	2.75 fl. ozs.	No

*(continued)*

**Table 5. (continued)**

Crop	Minimum Time From Application to Harvest (PHI)	Maximum Rate Per 1,000 sq. ft. Per Application	Maximum Rate Per 1,000 sq. ft. Per Season	Livestock Grazing or Feeding
Cherries (sweet & sour)	25 days	1.38 fl. ozs.	2.75 fl. ozs.	n/a
Citrus <sup>1</sup>	15 days	1.38 fl. ozs.	5.5 fl. ozs.	Yes
Clover	7 days before grazing, feeding, or cutting for (undried) forage	1.38 fl. ozs.	3.58 fl. ozs.	Yes

(continued)

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
Corn (field corn) <sup>1</sup>	60 days (grain or fodder) 45 days (forage and silage)	0.83 fl. ozs.	1.65 fl. ozs.	Yes
Corn (sweet corn) <sup>1</sup>	45 days (grain or fodder) 30 days (fresh sweet corn or forage and silage)	0.83 fl. ozs.	1.65 fl. ozs.	Yes

*(continued)*

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
Cranberry <sup>1</sup>	60 days	1.38 fl. ozs.	2.48 fl. ozs.	No
<u>Cucurbits<sup>1</sup>, including:</u> Cantaloupes (all); Cucumber, Gherkin, Honeydew Melon, Muskmelon (all), Pumpkin, Squash (all), Watermelon	14 days <sup>1</sup>	0.83 fl. ozs.	1.65 fl. ozs.	No
Date (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a

*(continued)*

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
Deciduous Trees, Nonfood Crop Areas, Fallow Land <sup>1</sup>	n/a	1.38 fl. ozs.	n/a	No
Fescue, Tall <sup>1</sup>	n/a	1.38 fl. ozs.	n/a	No
Fig (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a
<u>Fruiting Vegetables<sup>1</sup>, including:</u> Eggplant, Goundcherry, Pepino, Peppers (all) <sup>1</sup> , Tomatillo, Tomato <sup>1</sup>	20 days	0.83 fl. ozs.	2.48 fl. ozs.	No
Grape <sup>1</sup>	50 days	1.38 fl. ozs.	2.75 fl. ozs.	No

*(continued)*

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
<u>Head and Petiole Type vegetables<sup>1</sup></u> Cardoon, Celery <sup>1</sup> , Celery (Chinese), Celltuce, Fennel (Florence), Lettuce (Head), Radicchio, Rhubarb <sup>1</sup> , Swiss Chard	30 days	0.83 fl. ozs.	1.65 fl. ozs.	No
Horseradish <sup>1</sup>	60 days	1.38 fl. ozs.	2.75 fl. ozs.	No

*(continued)*



**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
<u>Leafy Vegetables</u> Amaranth, Arugula, Chervil, Chrysanthemum, (Edible, Garland), Cilantro, Corn Salad, Cress (Garden, Upland), Dandelion, Dock, Endive (Escarole), Lettuce (Leaf), Orach, Parsley, Purslane (Garden, Winter), Spinach (including New Zealand and Vine)	15 days	0.83 fl. ozs	1.65 fl. ozs	No

*(continued)*

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
Lingonberry, Salal, Juneberry	45 days	1.38 fl. ozs.	2.75 fl. ozs.	No
Mint <sup>1</sup>	20 days	1.38 fl. ozs.	2.75 fl. ozs.	No
Nectarine	25 days	1.38 fl. ozs.	2.75 fl. ozs.	n/a
Olives (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a
Peach	25 days	1.38 fl. ozs.	2.75 fl. ozs.	n/a
Peas, dry, Succulent	30 days 15 days	1.38 fl. ozs. 1.38 fl. ozs.	2.2 fl. ozs. 2.2 fl. ozs.	Yes Yes

(continued)

**Table 5. (continued)**

Crop	Minimum Time From Application to Harvest (PHI)	Maximum Rate Per 1,000 sq. ft. Per Application	Maximum Rate Per 1,000 sq. ft. Per Season	Livestock Grazing or Feeding
Pistachio <sup>1</sup>	15 days	1.38 fl. ozs.	5.5 fl. ozs.	n/a
Plum (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a
<u>Pome Fruits<sup>1</sup>, including:</u> Apples, Crabapples, Pears and Quince	14 days	1.38 fl. ozs.	4.13 fl. ozs.	No
Pomegranate (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a

(continued)

**Table 5. (continued)**

Crop	Minimum Time From Application to Harvest (PHI)	Maximum Rate Per 1,000 sq. ft. Per Application	Maximum Rate Per 1,000 sq. ft. Per Season	Livestock Grazing or Feeding
Potatoes <sup>1</sup> , Field, Sweet (East US) Sweet (West US)	30 days	1.38 fl. ozs.	2.75 fl. ozs.	No
	30 days	1.38 fl. ozs.	2.75 fl. ozs.	No
	60 days	0.83 fl. ozs.	2.75 fl. ozs.	No
Prune (nonbearing) <sup>1</sup>	1 year	1.38 fl. ozs.	4.13 fl. ozs.	n/a

(continued)

**Table 5. (continued)**

<b>Crop</b>	<b>Minimum Time From Application to Harvest (PHI)</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Application</b>	<b>Maximum Rate Per 1,000 sq. ft. Per Season</b>	<b>Livestock Grazing or Feeding</b>
<u>Tuberous and Corn Vegetables</u> Arracacha, Arrowroot, Artichoke (Chinese, Jerusalem), Canna (Edible), Cassava (Bitter, Sweet), Chayote Root, Chufa, Dasheen (Taro), Ginger, Leren, Potato <sup>1</sup> , Tanier, Tumeric, Yarn Bean, Yam (True)	30 days	1.38 fl. ozs.	2.75 fl. ozs.	No
Strawberry <sup>1</sup>	7 days	1.38 fl. ozs.	1.38 fl. ozs.	No

*(continued)*

**Table 5. (continued)**

Crop	Minimum Time From Application to Harvest (PHI)	Maximum Rate Per 1,000 sq. ft. Per Application	Maximum Rate Per 1,000 sq. ft. Per Season	Livestock Grazing or Feeding
Tree Nuts <sup>1</sup>	15 days	1.38 fl. ozs.	5.5 fl. ozs.	No

<sup>1</sup>See **Crop-specific Information** for more details concerning use restrictions and PHI exceptions.  
n/a = not applicable

## **Crop Specific Information**

### **Corn, Field**

Not for use in California.

**DO NOT** apply this product after pollination occurs.

### **Corn, Sweet**

Applications of this product in sweet corn may be made until the onset of pollen shed. **DO NOT** apply this product after pollination occurs. A second application of this product in sweet corn may be made 10 days or later following the first application.

**Mowing:** The best control of annual grasses can be achieved by applying this product before grass weeds are mowed. Once a grass is mowed it becomes tougher to control, as much of the leaf surface may be removed, putting the grass under stress. In areas without a killing frost, some annuals can overwinter after having been mowed a number of times. These grasses can form large crowns and contain many viable buds. A large crown, even if it is an annual grass, may require repeated applications of this product for partial or complete control.

### **Annual Grass Control**

Apply this product at the grass sizes and rates indicated in **Tables 1** and **3**. If grass has been cut, apply this product after the regrowth reaches the minimum height (so there will be enough leaf area for absorption) and before it exceeds the maximum height indicated.

Some annual grasses are spring- and summer-germinating plants, while others are fall-germinating plants, and the time they are actively growing and most susceptible to this product may vary from area to area. Also, some annuals

germinate over a long time, and because control of small grasses is desired, applications after each weed flush may be needed.

As a general guideline, spray spring- and summer-germinating grasses as early in the season as possible. The optimum application timing may occur very early in the spring after initial green-up. Spray fall-germinating weeds in the fall soon after they begin growing but before any killing frosts. Late fall applications may be less effective due to environmental changes, such as frosts or the onset of flowering.

### **Perennial Grass Control**

This product effectively controls or suppresses perennial grasses, such as Bermudagrass, Johnsongrass, quackgrass, wirestem muhly, and perennial ryegrass (see **Table 2**). However, their growth characteristics are such that they are more difficult to control than annual grasses, especially in a perennial crop such as established alfalfa or clover. A program of repeated applications is usually necessary for best results.

The most economical way of controlling perennial grasses is to do so in the year of stand establishment before rhizomes or stolons become large and difficult to kill. The field should be disked before seeding to thoroughly fragment rhizomes or stolons.

In summer and fall seedings, cool season grasses (quackgrass, wirestem muhly, and perennial ryegrass) can become very competitive under cool fall conditions. Fall applications of this product will reduce late season grass growth and limit the ability of grasses to accumulate nutrient reserves in roots and rhizomes.

In established stands, it is important to begin applying in the spring when conditions favor active



growth and before storage tissues have increased their nutrient reserves. Additional applications could be made on any grass regrowth in latter cuttings.

### **Fruit and Nut Crops**

**Blueberry:** Not registered in California.

**Citrus:** Pulp and waste may be fed to livestock.

**Cranberry:** Not registered in California.

**Grape:** Pomace and raisin waste may be fed to animals.

**Pistachio:** This product should only be applied as a directed spray to the grove floor for bearing pistachio trees.

**Pome Fruits:** Pressed or processed apple waste may be fed to animals.

### **Tree Nuts**

This product may be used for grass control and suppression in bearing or nonbearing tree nuts. Tree nuts are very tolerant to this product; this product may be applied over the top of small, nonbearing trees or as a directed spray on larger trees.

**DO NOT** apply this product with another pesticide whose label cautions against use with oil adjuvants.

In almond, only almond hulls may be fed to animals.

### **Nonbearing Fruit and Nut Crops**

For nonbearing areas, always add 0.75 fl. ozs. of oil concentrate per 1000 sq. ft.

The nonbearing crops that this product may be applied to are:

- **Avocado**   • **Date**   • **Fig**   • **Olive**   • **Plum**
- **Pomegranate**   • **Prune**

To minimize the potential for tree injury, direct the spray away from the leaves as much as possible.

**Noncrop Areas  
Deciduous Trees, Nonfood Crop Areas,  
Fallow Land**

**DECIDUOUS TREES,  
NONFOOD CROP AREAS, FALLOW LAND**

This product may be used in noncrop areas including rights-of-way, roadsides and other paved areas, along fences and hedgerows, public buildings, recreation areas, industrial sites, storage yards, airports, electric transformer stations, pipeline pumping stations, sewage disposal areas, on potting soil and topsoil, uncultivated agricultural areas, and general indoor or outdoor sites.

This product is not recommended for use on red sprangletop in California, Arizona or western New Mexico.

**Notice to user:** Due to variability within species and in application techniques, neither the manufacturer nor the seller has determined whether or not this product can be safely used on all varieties and species of nonbearing food crops and other nonfood crops under all conditions. Therefore, determine if this product can be used safely before broad use in the following manner: On a small test area, apply the rate of this product on nonbearing or nonfood crop species or varieties under the conditions expected to be encountered. Any adverse conditions should be visible within 7 days.

**Vegetable Crops**

Allow a minimum of 14 days between sequential applications.

Always add oil concentrate at 0.73 fl. ozs. per 1,000 sq. ft. However, when the temperature exceeds 90°F and the relative humidity is 60%

or greater, or any time the temperature exceeds 100°F regardless of the humidity, this product plus adjuvants should be used with caution due to potential leaf injury.

### **Brassica Vegetables**

Mustard greens may be harvested 14 days after the last application. All other brassica vegetable crops may be harvested no sooner than 30 days after the last application.

### **Cucurbit Vegetables**

Cantaloupe may be harvested 3 days after the last application. All other cucurbit vegetable crops may be harvested no sooner than 14 days after the last application.

### **Fruiting Vegetables**

Peppers may be harvested 7 days after the last application. All other fruiting vegetable crops may be harvested no sooner than 20 days after the last application. Tomato waste may be fed to animals.

### **Head and Petiole Vegetables**

In Florida, celery may be harvested 14 days after the last application. All other head and petiole vegetable crops may be harvested no sooner than 30 days after the last.

**Horseradish:** Not for use in California.

### **Potato and Tomato**

In case of heavy infestations of quackgrass in potato, use 1.38 fl. ozs. of this product per 1,000 sq. ft. followed by 0.83 fl. ozs. per 1,000 sq. ft. sequentially if needed. DO NOT treat transplanted tomatoes within 14 days of transplanting. Tomatoes must have recovered from transplant shock and new growth must be evident. DO NOT treat seeded tomatoes until plants have reached the 5 to 6 leaf stage. Potato and tomato wastes may be fed to animals.

## Sweet Potato

Eastern US includes AL, FL, GA, LA, MS, NC, SC, TN, TX and VA. Western US includes AZ, CA, ID, NV, OR and WA.

## Rhubarb

Rhubarb grown only in IL, IN, MI, MN, and WI may be harvested up to **15-day PHI**.

Weeds listed in this label	
Common Name	Scientific Name
Barnyardgrass (Watergrass)	<i>Echinochloa crus-galli</i>
Bermudagrass (Wiregrass)	<i>Cynodon dactylon</i>
Crabgrass, Large, Smooth	<i>Digitaria sanguinalis</i> <i>Digitaria ischaemum</i>
Cupgrass, Southwestern, Wooly	<i>Eriochloa gracillis</i> <i>Eriochloa villosa</i>
Fescue, Tall	<i>Festuca arundinacea</i>
Foxtail, Giant (Pigeongrass), Green, Yellow	<i>Setaria faberi</i> <i>Setaria viridis</i> <i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass	<i>Sorghum halepense</i>
Junglerice	<i>Echinochla colonum</i>
Lovegrass	<i>Eragrostis sp.</i>
Millet, Wild Proso	<i>Panicum miliaceum</i>
Muhly, Wirestem	<i>Muhlenbergia frondosa</i>
Oats, Tame, Wild	<i>Avena sativa</i> <i>Avena fatua</i>
Orchardgrass	<i>Dactylis glomerata</i>

(continued)

## Weeds listed in this label *(continued)*

Common Name	Scientific Name
Panicum, Browntop, Fall, Texas	<i>Panicum fasciculatu</i> <i>Panicum dichotomiflorum</i> <i>Panicum texanum</i>
Quackgrass	<i>Agropyron repens</i>
Red Rice	<i>Oryza sativa</i>
Ryegrass, Annual, Perennial	<i>Lolium multiflorum</i> <i>Lolium perenne</i>
Sandbur, Field	<i>Cenchrus incertus</i>
Shattercane/Wildcane	<i>Sorghum bicolor</i>
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Sprangltop, Red	<i>Leptochloa filiformis</i>
Stinkgrass	<i>Eragrostis cilianensis</i>
Volunteer Barley	<i>Hordeum vulgare</i>
Corn	<i>Zea mays</i>
Oats	<i>Avena sativa</i>
Rye	<i>Secale Cereale</i>
Wheat	<i>Triticum aestivum</i>
Witchgrass	<i>Panicum capillare</i>

## Crops

This product may be used on the following crops:

Apricot	Carrot
Artichoke	Cherry
Asparagus	Citrus
Avocado*	Corn field and sweet
Beans	Cranberry
Beet, Garden	Cucurbits
Blueberry	Date*
Bassica Crops	Fig*
Bulb Vegetables	Fruiting vegetables
Caneberries	Grape

*(continued)*

### Crops (*continued*)

Head and Petiole Vegetables	Pistachio
Horseradish	Plum*
Juneberry	Pome Fruits
Leafy Vegetables	Pomegranate*
Lingonberry	Potato
Mint	Prune*
Nectarine	Root and Tuberous Vegetables
Olive*	Strawberry
Peach	Tree Nuts
Peas, Dry and Succulent	Other Nonbearing and Nonfood Areas

#### \*Nonbearing crop only

Look inside for complete restrictions and limitations and application instructions.

### FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

#### Nonagricultural 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, nurseries, or greenhouses. **DO NOT** allow people or pets to come into contact with treated areas until sprays have dried.

#### General Information

This product is a selective, broad-spectrum, postemergence herbicide for control of annual and perennial grass weeds in turf, ornamentals, nonfood, and noncrop sites listed on this label. This product does not control sedges or broadleaf weeds. All grass crops, such

as sorghum, corn, small grains, and rice, as well as ornamental grasses, such as turf, are susceptible to this product. A program for total vegetation suppression may necessitate the use of a broadleaf herbicide. Any combination treatment using this product, either tank mixed or sequential, should be tested to determine if seed-head growth suppression is maintained without increased injury or discoloration to tall fescue or other desired plant species. A reduction in grass competition may make certain broadleaf weeds appear more prominent or may allow new weeds to germinate.

**This product may be used in or around the following sites:**

Airports	Perennial peanuts (nonfood)
Bedding plants	Pipeline pumping stations
Centipedegrass and fine fescue turf	Potting soil and topsoil
Drug and medicinal crops	Public buildings
Electrical transformer stations	Recreation areas
Fences and hedgerows	Sewage disposal areas
Fine fescue seed production	Shrubs
General indoor/outdoor sites	Storage yards
Ground covers	Trees, Christmas trees
Industrial sites	Uncultivated agricultural areas
Other paved areas	Wildflowers

## **Mode of Action**

This product rapidly enters the targeted grass weed through its foliage and translocates throughout the plant. The effects range from slowing or stopping growth (generally within 2 days), to foliage and leaf-tip burn. Subsequently, foliage burnback occurs. These symptoms will generally be observed within 3 weeks depending on environmental conditions.

## **Crop Tolerance**

All labeled crops are tolerant to this product at all stages of growth. Leaf speckling may occur, but plants generally outgrow this condition within 10 days. New growth is normal, and crop vigor is not reduced.

**Notice to User:** Due to variability within species, and in application techniques and equipment, and the number of tank mix combinations, neither the manufacturer nor the seller has determined if this product can safely be used on all varieties and species of nonbearing food crops, trees, shrubs, ornamentals, bedding plants, ground covers, nursery plants, wildflowers, Christmas trees, turf and other nonfood crops under all conditions. It is recommended, therefore, that the professional user determine if this product can be used safely before broad use by applying the use rate of this product under the conditions expected to be encountered on a small test area. Any adverse effects should be visible within 7 days.

## **Herbicide Resistance**

Repeated use of this product (or similar postemergence grass herbicides with the same mode of action) may lead to the selection of naturally occurring biotypes with resistance to these products. If poor performance cannot be attributed to adverse weather conditions or



improper application methods, a resistant biotype may be present. Consult your local representative or agricultural advisor for assistance.

### **Irrigation**

In irrigated areas, it may be necessary to irrigate before treatment to ensure active weed growth.

### **Coverage**

Apply this product uniformly and completely to the foliage of grasses on a spray-to-wet basis. Dense leaf canopies shelter smaller grassy weeds and can prevent adequate spray coverage. **DO NOT** spray to the point of runoff.

## **Application Instructions**

Applications (broadcast, band, or spot spray) can be made to actively growing grassy weeds at the rates and growth stages listed in **Table 6** and **Table 7**, unless instructed differently in **Crop-specific Information**. The most effective control will result from making postemergence applications of this product early, when grassy weeds are small. Delaying application permits grassy weeds to exceed the maximum size stated and will prevent adequate control.

**DO NOT** apply when conditions favor drift from target area or when wind speed is greater than 10 mph.

### **Ground Application (Broadcast)**

**Water volume.** Use 1 to 10 pints of spray solution per 1,000 sq. ft.

**Spray Pressure.** Use 30 to 60 psi (measured at the boom, not at the pump or in the line). When crop and grass weed foliage is dense, use a minimum of 3.67 pints per 1,000 sq. ft. of water and 60 psi.

**Application Equipment.** Use standard high-pressure pesticide flat fan or hollow cone nozzles spaced up to 20 inches apart. **DO NOT** use flood, whirl chamber, or controlled droplet

applicator (CDA) nozzles because erratic coverage can cause inconsistent weed control. Refer to the nozzle manufacturer's directions for recommended height.

**DO NOT** use selective application equipment such as recirculating sprayers or wiper applicators.

### **Spot or Small Area Application**

This product can be applied using tank type sprayers, knapsack sprayers, high-volume equipment with handguns, or other suitable nozzle arrangements. Prepare a solution of this product in water according to **Table 8**.

**DO NOT** make spot treatments in addition to broadcast treatment.

<b>Table 6.</b>		
<b>Grass</b>	<b>Grasses up to 6" height</b>	<b>Grasses up to 12" height</b>
Bahiagrass <sup>1</sup> Barnyardgrass Bentgrass, colonial Bentgrass, highland Broadleaf signalgrass Crabgrass, large <sup>1,2</sup> Crabgrass, smooth <sup>1,2</sup> Downy brome <sup>3</sup> German velvetgrass <sup>1</sup> Goosegrass <sup>1,2</sup> Johnsongrass, rhizome Johnsongrass, seedling Junglerice	0.8 fluid ounce per 1,000 square feet	1.4 fluid ounces per 1,000 square feet

*(continued)*

**Table 6. (continued)**

<b>Grass</b>	<b>Grasses up to 6" height</b>	<b>Grasses up to 12" height</b>
Lovegrass Orchardgrass, seedling Panicum, browntop Panicum, fall Panicum, Texas Quackgrass Ryegrass, annual <sup>4</sup> Sandbur, field Shattercane/Wildcane Sprangletop, red* Tall Fescue, seedling Volunteer, barley Volunteer, oats Volunteer, rye Volunteer, wheat Wild oats Wild proso millet Wirestem muhly Witchgrass Wooly cupgrass	0.8 fluid ounce per 1,000 square feet	1.4 fluid ounces per 1,000 square feet

<sup>1</sup>Up to 4"

<sup>2</sup>In seedling centipedegrass and fine fescue,  
use 0.5 fluid ounce per 1,000 sq. ft.

<sup>3</sup>Up to 6"

<sup>4</sup>Up to 8"

\*Not recommended in Arizona or western  
New Mexico.

**Table 7. Spot Treatment Application Rates**

<b>Grass</b> (see <b>Appendix</b> for the complete list of grasses controlled)	<b>Concentration of this product in Spray Solution (%)</b>
Annual grasses up to 6" height	1.5
Annual grasses up to 12" height	2.25
Perennial grasses	2.25 <sup>1</sup>
<sup>1</sup> Use 1.5% for wirestem muhly.	

**Table 8. Spot Treatment Dilution**

<b>Spray Solution volume (gallons)</b>	<b>Amount of this herbicide to be added (fl. oz.)</b>	
	<b>1.5% v/v</b>	<b>2.25% v/v</b>
1	2	3

### **Additives**

No additives or adjuvants are recommended for use with this product.

### **Mixing Order**

1. **Water.** Begin by agitating a thoroughly clean sprayer tank half full of clean water.
2. **Emulsifiable concentrates.**
3. **Remaining quantity of water.**

Maintain constant agitation during application.

### **General Restrictions and Limitations – All Crops**

- **Maximum seasonal use rate.** See **Crop-specific Information** for crop-specific maximum seasonal use rates.

- **Restricted-Entry Interval (REI): 12 hours**
- Avoid all direct or indirect contact with any desired grass crop unless otherwise recommended on this label.
- **DO NOT** use treated vegetation as pasture, hay, feed, or forage.
- **DO NOT** apply this product with another pesticide when label cautions against use with additives, surfactants, or oil adjuvants.
- **DO NOT** use **selective application equipment** such as recirculating sprayers, wiper applicators, or **shielded applicators**.
- **Stress. DO NOT** apply to grasses, or crops under stress, such as stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures, as unsatisfactory control will probably result.
- **DO NOT** apply to crops that show **injury** (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications because this injury may be enhanced or prolonged.
- **Rainfast Period.** This product is rainfast 1 hour after application.
- **DO NOT** apply through any type of irrigation equipment.

### **Crop-specific Information**

#### **Christmas Tree and Deciduous Tree Farms**

This product may be used to control annual and perennial grasses in Christmas and deciduous tree farms.

If a Christmas tree or deciduous tree is not listed in the **Appendix**, the user may determine if this product can be used safely prior to broad use by applying the recommended use rate of this product to the target plant on a small test area under the conditions expected to be encountered. Any adverse effects should be visible within 7 days.

**Table 9. Christmas Trees**

<b>Common Name</b>	<b>Scientific Name</b>
Fir, balsam	<i>Abies balsamea</i>
Fir, Douglas	<i>Pseudotsuga mensiesii</i>
Fir, Frasier	<i>Abies fraseri</i>
Fir, grand	<i>Abies grandis</i>
Fir, noble	<i>Abies procera</i> ( <i>A. nobilis</i> )
Fir, Nordmann	<i>Abies nordmanniana</i>
Fir, red	<i>Abies magnifica</i>
Fir, Shasta	<i>Abies magnifica</i>
Fir, Turkish	<i>Abies bornmuelleriana</i>
Fir, white	<i>Abies concolor</i>
Hemlock, Canada	<i>Tsuga Canadensis</i>
Pine, Austrian	<i>Pinus nigra</i>
Pine, lodgepole	<i>Pinus contrta latifolia</i>
Pine, Monterey	<i>Pinus radiata</i>
Pine, ponderosa	<i>Pinus ponderosa</i>
Pine, Scotch	<i>Pinus sylvestris</i>
Pine, Southern (longleaf)	<i>Pinus palustris</i>
Pine, Virginia	<i>Pinus virginiana</i>
Pine, white	<i>Pinus strobes</i>
Spruce, Black Hills	<i>Picea glauca</i>
Spruce, Colorado Blue	<i>Picea pungens</i>
Spruce, Norway	<i>Picea abies</i>
Spruce, white	<i>Picea glauca</i>

## **Nonbearing Food Crops, Ornamental and Nursery Plantings, Rights-of-way, Nonfood Crop Areas, Noncrop Areas, and Fallow Land**

Apply this product to nonbearing food crops, nursery liners, trees, shrubs, ornamentals, bedding plants, cut flowers, and ground covers including those listed in the **Appendix**. If species in the application site are not listed in the **Appendix**, this product may be applied as a directed spray away from the foliage of desired plants. This product may also be applied to sites such as rights-of-way, fallow land, noncrop areas and nonfood crop areas such as airports, industrial sites, roadsides, storage yards, and other areas listed in **General Information**. Repeat application if new germination or regrowth occurs.

## **Turf, Lawns, Rights-of-way FINE FESCUE GROWN FOR TURF SEED (Not for use in California)**

This product may be used to control annual and perennial grass weeds in fine fescue. On seedling centipedegrass, **DO NOT** apply more than 0.55 fl. ozs. per 1,000 sq. ft. per application or 1.1 fl. ozs. per 1,000 sq. ft. per season. On established centipedegrass, **DO NOT** apply more than 0.83 fl. ozs. per 1,000 sq. ft. per application or 1.65 fl. ozs. per 1,000 sq. ft. per season. **Applications should be made in the Pacific Northwest from November 1 to March 15 at the rates indicated in Table 5.** Applying this product at other times of the year will generally result in reduced control of these problem grass weeds. This product does not control annual bluegrass or rattail fescue.

## **Restrictions and Limitations**

**DO NOT** apply this product to desirable tall fescue turf.

**Table 10. Application Rates for Pacific Northwest Only**

<b>Grass Species</b>	<b>Weed Size (inches)</b>	<b>Rate per 1,000 sq.ft.* (fl. ozs.)</b>
<b>Annual Grasses</b>		
Annual ryegrass	4 to 8	0.83 fl. ozs.
Downy brome <sup>1</sup>	2 to 6	1.38 fl. ozs.
<b>Perennial Grasses</b>		
German velvetgrass	2 to 4	1.1 fl. ozs. - 1.38 fl. ozs.
Colonial and Highland bentgrass	2 to 4	0.83 fl. ozs. - 1.38 fl. ozs.
<sup>1</sup> Also called cheatgrass. *If regrowth occurs or new plants emerge, make a second application at the same rate and weed size.		

### **Wildflowers**

This product may be used to control grass in native wildflowers on roadsides and in landscapes.

This product will reduce the competition from grasses on wildflower species. Grass competition can cause flower stand thinning, stunting and reduced seed production, which reduces the aesthetic value and the resetting potential of the wildflower stand. Many wildflower species are tolerant of this product's applications such as those listed in the **Appendix**. However, apply this product prior to blooming.



## Application Timing

Apply this product to grass after wildflowers have emerged, but not during flowering. Apply this product 4 to 6 weeks after wildflowers have emerged, but always base the application timing on grass size. Make broadcast applications according to **Table 1** and **Table 2**. A second application may be necessary if a new flush of grass occurs later in the growing season.

<b>Appendix</b> <b>Tree Species Tolerant to this product</b>	
Acacia, knife leaf ( <i>Acacia cultriformis</i> )	Birch, Asian white (var. Japonica) ( <i>Betula platyphylla</i> )
Arborvitae, Eastern (var. Teehny) ( <i>Thuja occidentalis</i> )	Birch, European white ( <i>Betula pendula</i> )
Arborvitae, berkman's, Oriental ( <i>Thuja Orientalis</i> )	Birch, paper ( <i>Betula papyrifolia</i> )
Ash, green ( <i>Fraxinus pennsylvanicum</i> )	Birch, river, black or red ( <i>Betula nigra</i> )
Ash, mountain ( <i>Sorbus aucuparia</i> )	Black locust ( <i>Robinia pseudoacacia</i> )
Ash, mountain ( <i>Sorbus Americana decora</i> )	Bottle-brush ( <i>Callistemon lanceolatus</i> )
Ash, white ( <i>Fraxinus Americana</i> )	Bottle tree ( <i>Brachychiton populneus</i> )
Basswood, America ( <i>Tilia Americana</i> )	Brisbane box tree ( <i>Tristania conferta</i> )
Berkman's, Oriental ( <i>Thuja orientalis</i> )	Cajeput tree ( <i>Melaleuca quinquenervia</i> )
Birch ( <i>Betula sp.</i> )	Carob tree ( <i>Ceratonia siliqua</i> )

(continued)

## Appendix

### Tree Species Tolerant to this product (cont.)

Carrot wood ( <i>Cupaniopsis anacardioides</i> )	Eucalyptus ( <i>Eucalyptus robusta</i> , <i>lehmannii</i> , <i>nicholi granis</i> )
Catalpa Southern ( <i>Catalpa binonioides</i> )	Fir ( <i>Abies</i> sp.)
Cherry, black ( <i>Prunus serotina</i> )	Fir, Douglas ( <i>Pseudotsuga menziesii</i> )
Cherry, Carolina ( <i>Prunus caroliniana</i> 'compacta')	Fir, Frasier ( <i>Abies fraseri</i> )
Crabapple, flowering (var. dalgo, radiant, red splendor, royalty, vanguard, sylvestris, domestic) ( <i>Malus</i> sp.)	Fir, white ( <i>Abies concolor</i> )
Cypress, false ( <i>Chamaecyparis</i> <i>pisifera</i> )	Goldenrain tree ( <i>Koelreuteria paniculata</i> )
Cypress, leyland ( <i>Cupressocyparis</i> <i>leylandii</i> )	Guava ( <i>Psidium littorale</i> )
Cypress, Italian ( <i>Cupressus</i> <i>sempervirens</i> )	Guava, pineapple ( <i>Feijoa sellowiana</i> )
Dogwood, flowering ( <i>Cornus florida</i> )	Gum, blue ( <i>Eucalyptus globules</i> )
Dogwood, silky ( <i>Cornus amonum</i> )	Gum, lemon-scented ( <i>Eucalyptus citriodora</i> )
Dogwood, pagoda ( <i>Cornus alternifolia</i> )	Gum, red box ( <i>Eucalyptus</i> <i>polyanthemos</i> )
Elm, Chinese evergreen ( <i>Ulmus parvifolia</i> )	Hackberry, common ( <i>Celtis occidentalis</i> )
	Hemlock, Canadian ( <i>Tsuga Canadensis</i> )
	Holly, Chinese (var. Bufordii, Rotunda)
	( <i>Ilex cornuta</i> )

(continued)

## Appendix

### Tree Species Tolerant to this product (cont.)

Holly, hybrid (var. Nellie Stevens) ( <i>Ilex spares</i> )	Maple, Japanese ( <i>Acer palmatum</i> )
Holly, Japanese (var. convexa, compacta, helleri, hoogendorn) ( <i>Ilex crenata</i> )	Maple, silver ( <i>Acer saccharinum</i> )
Holly, yaupon ( <i>Ilex vomitoria</i> )	Mimosa tree (silk tree) ( <i>Albizia julibrissin</i> )
Ironbark, red ( <i>Eucalyptus sideroxylon</i> )	Myoporum ( <i>Myoporum laetum</i> )
Jacaranda ( <i>Jacaranda mimosifolia</i> )	New Zealand Christmas tree ( <i>Metrosideros excelsus</i> )
Kentucky coffee tree ( <i>Gymnocladus dioicus</i> )	Oak ( <i>Quercus</i> )
Larch, European ( <i>Larix europa</i> )	Oak, water ( <i>Quercus nigra</i> )
Laurel, Indian ( <i>Ficus microcarpa nitida</i> )	Oak, willow ( <i>Quercus phellos</i> )
Linden ( <i>Tilia americana</i> )	Olive tree ( <i>Olea europaea</i> )
Linden, littleleaf ( <i>Tilia cordata</i> )	Olive, Russian ( <i>Elaeagnus angustifolia</i> )
Locust, honey ( <i>Gleditsia triacanthos inermis</i> )	Orchid tree, purple ( <i>Bauhinia variegata</i> )
Loquat ( <i>Eriobotrya japonica</i> )	Osage orange ( <i>Maclura pomifera</i> )
Magnolia, Southern ( <i>Magnolia grandiflora</i> )	Palm, Mediterranean fan ( <i>Chamaerops humilis</i> )
Maple, red ( <i>Acer rubrum</i> )	Palm, pygmy date ( <i>Phoenix roebelenii</i> )
	Palm, queen ( <i>Arecastrum romanzoffianum</i> )

(continued)

## Appendix

### Tree Species Tolerant to this product (cont.)

Palm, sago ( <i>Cycas revoluta</i> )	Pine, loblolly ( <i>Pinus taeda</i> )
Palm, windmill ( <i>Tracheocarpus fortunei</i> )	Pine, Mugho ( <i>Pinus mugho</i> )
Palo verde, green ( <i>Parkinsonia aculeate</i> )	Pine, ponderosa ( <i>Pinus ponderosa</i> )
Paulownia royal ( <i>Paulownia tomentosa</i> )	Pine, Western yellow ( <i>Pinus ponderosa</i> )
Pear, common ( <i>Pyrus communis</i> )	Pine, red ( <i>Pinus resinosa</i> )
Pear, evergreen ( <i>Pyrus kawakamii</i> )	Pine, Scotch ( <i>Pinus sylvestris</i> )
Pear, Ussurian ( <i>Pyrus ussuriensis</i> )	Pine, shore ( <i>Pinus contra</i> )
Pepper, Brazilian ( <i>Schinus terebinthifolius</i> )	Pine, slash ( <i>Pinus ellottii</i> )
Pine, Aleppo ( <i>Pinus halepensis</i> )	Pine, Southern ( <i>Pinus palustris</i> )
Pine, Austrian ( <i>Pinus nigra</i> )	Pine, Virginia ( <i>Pinus virginiana</i> )
Pine, Canary Island ( <i>Pinus canariensis</i> )	Pine, white ( <i>Pinus strobes</i> )
Pine, Caribbean slash ( <i>Pinus caribean</i> )	Pine, yew ( <i>Podocarpus macrophyllus</i> )
Pine, Italian stone ( <i>Pinus pinea</i> )	Plum, wild ( <i>Prunus Americana</i> )
Pine, jack ( <i>Pinus banksiana</i> )	Poplar, hybrid ( <i>Populus alba</i> )
Pine, Japanese black ( <i>Pinus thunbergii</i> )	Popular, tulip tree ( <i>Liriodendron tulipifera</i> )
Pine, Japanese white ( <i>Pinus parviflora</i> )	Popular, yellow ( <i>Liriodendron tulipifera</i> )

(continued)

<b>Appendix</b> <b>Tree Species Tolerant to this product (cont.)</b>	
Purpleleaf, Bailey acacia <i>(Acacia baileyana)</i> Redwood, coast <i>(Sequoia sempervirens)</i> Sandcherry, Western <i>(Prunus besseyi)</i> Sensitive plant <i>(Mimosa pudica)</i> Silk tree <i>(Albizia julibrissin)</i> Spruce, Black Hills (var. Densata) <i>(Picea glauca)</i> Spruce, Colorado blue <i>(Picea pungens)</i> Spruce, Norway <i>(Picea abies)</i> Spruce, white <i>(Picea glauca)</i> Strawberry tree <i>(Arbutus unedo)</i> Sumac, African <i>(Rhus lancea)</i> Sumac, standard <i>(Rhus lancea)</i>	Sweet gum <i>(Liquidambar styraciflus)</i> Sycamore <i>(Platanus occidentalis)</i> Tea tree, Australian <i>(Leptospermum laevigatum)</i> Tipu tree <i>(Tipuana tipu)</i> Walnut, black <i>(Juglans nigra)</i> Weeping fig, exotica <i>(Ficus bengamina)</i> Willow <i>(Salix matsudana tortuosa)</i> Willow, Australian <i>(Geijera parviflora)</i> Willow, desert <i>(Pittosporum phillyraeoides)</i> Willow, peppermint <i>(Agonis flexuosa)</i> Yate, bushy <i>(Eucalyptus lehmannii)</i> Yew, English <i>(Taxus baccata)</i>

<b>Shrub Species Tolerant to this product</b>	
Abelia, glossy <i>(Abelia grandiflora)</i> Acacia, Bailey <i>(Acacia baileyana)</i>	Acacia, Knife leaf <i>(Acacia cultriformis)</i> Acacia, prostrate <i>(Acacia redolens)</i>

(continued)

## Shrub Species Tolerant to this product (cont.)

Acacia, Sydney golden wattle ( <i>Acacia longifolia</i> )	Boxwood, Japanese (var. Japonica) ( <i>Buxus microphylla</i> )
Andromeda ( <i>Pieris japonica</i> )	Buckthorn, Alder ( <i>Thamnus frangula</i> )
Arborvitae, Oriental ( <i>Platycladus orientalis</i> )	Buckthorn, Glossy ( <i>Phamnus frangula</i> )
Arrowwood, Southern ( <i>Viburnum dentatum</i> )	Camellia ( <i>Camellia japonica</i> )
Azalea, mollis hybrid ( <i>R. x kosterianum</i> )	( <i>Camellia sasanqua</i> )
Azalea, Northern lights hybrid ( <i>R. x kosterianum</i> x <i>R. prinophyllum</i> )	Cedar, Eastern red (var. Pyramidiformus, canearl)
Bamboo, heavenly ( <i>Nandina domestica</i> )	Cedar ( <i>Juniperus virginiana</i> )
Barberry, Japanese ( <i>Berberis thunbergii</i> )	Cherry, brush ( <i>Eugenia myrtifolia</i> )
Barberry, Korean ( <i>Berberis koreana</i> )	Cherry, Manchu, Nanking ( <i>Prunus tomentosa</i> )
Barberry, redleaf ( <i>Berberis Virginian</i> )	Chokecherry sp. ( <i>Aronia meloelata</i> )
Bird of Paradise bush ( <i>Caesalpinia gillesil</i> )	Copper plant, Caribbean ( <i>Euphoria cotinifolia</i> )
Bluebeard ( <i>Caryopteris clandonensis</i> )	Cotoneaster, bearberry ( <i>Cotoneaster dammerii</i> )
Boxwood, African ( <i>Myrsine Africana</i> )	Cotoneaster, cranberry ( <i>Cotoneaster apiculata</i> )
Boxwood, common ( <i>Buxus sempervirens</i> )	Cotoneaster, 'lowfast' Peking ( <i>Cotoneaster acutifolia</i> )
	Coyote bush ( <i>Baccharis pilularis</i> )

(continued)

## Shrub Species Tolerant to this product (cont.)

Cranberry bush,  
     American  
     (*Viburnum trilobum*)  
 Cranberry bush, golden  
     (*Viburnum opulus*  
     *aureum*)  
 Crape myrtle  
     (*Lagerstromia indica*)  
 Current, alpine  
     (*Ribes alpinum*)  
 Dogwood, red osier  
     (*Cornus stolonifera*)  
 Elaeagnus  
     (*Elaeagnus umbellata*)  
 Escallonia  
     (*Escallonia fradesii*)  
     (*Escallonia runia*)  
 Euonymus  
     (*Euonymus japonica*)  
 Euonymus, evergreen  
     (var. golden, silver king)  
 Euonymus, winged  
     (*Euonymus alata*)  
 Fig, creeping  
     (*Ficus repens*)  
 Firethorn  
     (*Pyracantha graberi*)  
 Forsythia, greenstem  
     (*Forsythia viridissima*  
     *bronxensis*)  
 Flax, New Zealand  
     (*Phormium tenax*)  
 Fuschia, Australian  
     (*Correa pulchella*)

Gardenia  
     (var. Mystery, Radicans)  
     (*Gardenia augusta*)  
     (*Gardenia jasminoides*)  
 Gardenia, dwarf  
     (var. Veitchii) (*Gardenia*  
     *jasminoides*)  
 Gold vine, Guinea  
     (*Hibbertia scandens*)  
 Hakea  
     (*Hakea proteacea*)  
 Hawthorn, Indian  
     (*Phaphiolepis indica*)  
 Hibiscus, blue  
     (*Alyogyne huegelli*)  
 Hibiscus, Chinese  
     (*Hibiscus rosa-sinensis*)  
 Holly, dwarf Burford  
     (var. Burfordii nana)  
     (*Ilex cornuta*)  
 Honeysuckle, bush  
     (*Diervilla lonicera*)  
 Honeysuckle, cape  
     (*Tecomaria capensis*)  
 Hydrangea  
     (*Hydrangea*  
     *macrophylla*)  
 Jasmine, Asiatic  
     (*Trachelopsernum*  
     *asiaticum*)  
 Jasmine, orange  
     (*Murraya paniculata*)

(continued)

## Shrub Species Tolerant to this product (cont.)

Jasmine, star  
(*Trachelospermum jasminoides*)  
Jasmine, winter  
(*Jasmine nudiflorum*)  
Jessamine, Carolina  
(*Gelsemium sempervirens*)  
Jojoba  
(*Simmondsia chinensis*)  
Juniper, Chinese  
(var. Maneyl, Old Gold, Phtzerana, Sea Green, Hekii, Nana, Torulosa, Phtzerana (Aurea, Pfitzer, Golden Pfitzer)  
(*Juniperus chinensis*)  
Juniper, creeping  
(var. Bluechip, Hughes, Plumosa, Prince of Wales, Webberi, Wiltonii, Bar Harbor, Andorra, Variegata, Youngstown Blue Bug)  
(*Juniperus Horizontalis*)  
Juniper, Ozark  
(*Juniperus sp.*)  
Juniper, Rocky Mountain  
(var. Blue Heaven, Welchii, Wichita Blue, Medova, Moffet, Pyramidal Green, Springtime, Admiral)  
(*Juniperus scopulorum*)

Juniper, savin  
(var. Skandia, Arcadia, Broadmoor, Buffalo, Pepin) (*Juniperus Sabina*)  
Juniper, shore  
(var. Cornpacta)  
(*Juniperus conferta*)  
Juniper, tam  
(var. Tamariscifolia)  
(*Juniperus Sabina*)  
Lantana, purple trailing  
(*Lantana montevidensis*)  
Laurustinus  
(*Viburnum tinus*)  
Lemonage berry  
(*Rhus integrifolia*)  
Lilac, common purple  
(*Syringa vulgaris purpurea*)  
Liriope, green  
(*Liriope muscari*)  
Liriope, variegated  
(*Liriope musccari*)  
Mickey Mouse bush  
(*Oohna serrulata*)  
Mirror plant  
(*Coprosma repens*)  
Mock orange  
(*Pittosporum tobira*)  
Mountain lilac, Carmel creeper  
(*Ceanothus griseas*)

(continued)



## Shrub Species Tolerant to this product (cont.)

Myrtle, dwarf ( <i>Myrtus communis compacta</i> )	Pink lady ( <i>Rahioleis indica</i> )
Nandina, heavenly bamboo ( <i>Nandina domestica</i> )	Pink powder puff ( <i>Calliandra haematocephala</i> )
Nannyberry ( <i>Viburnum lantago</i> )	Pittosporum, variegated Japanese ( <i>Pittosporum tobira variegata</i> )
Ninebark ( <i>Physocarpus opulifolius</i> ) (var. Aureas) ( <i>Physocarpus opulifolius nanus</i> )	Plumbago, cape ( <i>Plumbago capensis</i> )
Oleander ( <i>Nerium oleander</i> )	Podocarpus, yew ( <i>Podocarpus macrophyllus</i> )
Orchid, rockrose ( <i>Cistus purpureus</i> )	Princess flower ( <i>Tibouchina urvilleana</i> )
Oregon grape ( <i>Mahonia aquifolium</i> )	Privet ( <i>Ligustrum indica</i> )
Osmanthus, holly-leaf ( <i>Osmanthus heterophyllum</i> )	Privet, gloss (var. Lake Tresca) ( <i>Ligustrum lucidum</i> )
Osmanthus, sweet olive ( <i>Osmanthus fragrans</i> )	Privet, Japanese ( <i>Ligustrum japonicum</i> )
Palm, natal (var. green carpet tuttle) ( <i>Carissa grandiflora</i> )	Privet, Texas ( <i>Liustrum texanum</i> )
Pampas grass ( <i>Cortaderia selloana</i> )	Privet, waxleaf ( <i>Ligustrum japonicum</i> )
Photinia ( <i>Photinia sp.</i> )	Purple hop bush ( <i>Dodonaea viscosa</i> )
Photinia Fraser ( <i>Photinia fraser</i> )	Pyracantha ( <i>Pyracantha graberi</i> )

(continued)

## Shrub Species Tolerant to this product (cont.)

Rhododendron sp.  
(Rhododendron –  
Azalea)  
(var. Hinocrimson,  
Hershey red, Coral  
blue, Hinodigiri,  
Christmas cheer, Pink  
ruffle, Formosa flame,  
Delaware Valley white,  
New white)

Sandcherry, purpleleaf  
(*Prunus cistena*)

Serviceberry, Allegheny  
(*Amelanchier laevis*)

Serviceberry, Saskatoon  
(var. Regent)  
(*Amelanchier alnifolia*)

Silver king  
(*Euonymus japonica*)

Sky flower, Brazilian  
(*Duranta stenostachya*)

Snowball bush  
(*Viburnum opulus sterilis*)

Spindle tree  
(*Euonymus kiautschovica*)

Spiraea  
(*Spiraea vanhouttei*)  
(var. Anthony waterer,  
Froebellii, goldflame)  
(*Spiraea bumalda*) (var.  
fairy queen) (*Spiraea  
trilobata*) (var.  
Snowbound) (*Spiraea  
nipponica*)

Star plant, lavender  
(*Grewia occidentalis*)

Tea tree, Australian  
(*Leptospermum  
laevigatum*)

Tea tree, New Zealand  
(var. Red glow)  
(*Leptospermum  
scoparium*)

Texas ranger  
(*Leucophyllum  
frutescens*)

Toyon, California holly  
(*Heteromeles arbutifolia*)

Trumpet vine, pink  
(*Pandorea rosea*)

Veronica  
(*Hebe 'Coed'*)

Viburnum, Japanese  
(*Viburnum japonicum*)

Viburnum, Sandankwa  
(*Viburnum suspensum*)

Wayfaring tree  
(*Viburnum lantanoide*)

Weeping fig, exotica  
(*Ficus benjamina*)

Wheeler's dwarf,  
Variegated  
(var. Wheeler)  
(*Pittosporum tobira*)

Yellow bells  
(*Tecoma stans*)

## Ornamentals and Bedding Plants Tolerant to this product

Alyssum ( <i>Alyssum</i> sp.)	Cactus, barrel ( <i>Echinocactus</i> sp.)
Asparagus, myers (var. Meyer)	Candytuft ( <i>Iberis sempervirens</i> )
( <i>Asparagus densiflorus</i> )	( <i>Iberis amara</i> )
Asparagus, sprenger (var. Sprenger)	Canna ( <i>Canna</i> sp.)
( <i>Asparagus densiflorus</i> )	Cassia, feathery ( <i>Cassia artemisioides</i> )
Aster, New York ( <i>Aster novi-belgii</i> )	Chrysanthemum, Marguerite
Aster, stokes (var. Blue, White)	( <i>Chrysanthemum</i> <i>frutescens</i> )
( <i>Stokesia cyanae</i> )	( <i>Chrysanthemum</i> <i>indicum</i> )
Baby's breath (var. Bristo fairy)	Cockscomb ( <i>Celosia argentea</i> )
( <i>Gypsophila paniculata</i> )	( <i>Canna</i> )
Begonia ( <i>Begonia semperflorens</i> )	Coleus ( <i>Coleus blumei</i> )
Bellflower, Tussock (var. Canterbury bells)	Coneflower, purple (var. Gloriosa Dairy)
( <i>Campanula carpatica</i> )	( <i>Echinacea purpurea</i> )
Bittersweet, American ( <i>Calastrus scandens</i> )	Coralbells ( <i>Heuchera sanguine</i> )
Black-eyed Susan (var. goldilicks)	Coreopsis (var. Sunray)
( <i>Rudbeckia hirta</i> )	( <i>Coreopsis lanceolata</i> )
Bleeding heart ( <i>Dicentra spectabilis</i> )	Cup of gold vine ( <i>Solandra maxima</i> )
Butterfly weed ( <i>Asclepias tuberosa</i> )	Daffodil ( <i>Narcissus</i> spp.)
Bower vine ( <i>Pandorea jasminoides</i> )	

(continued)

## Ornamentals and Bedding Plants Tolerant to this product (cont.)

Dahlia ( <i>Dahlia pinnata</i> )	Geranium, Martha Washington ( <i>Pelargonium domesticum</i> )
Daisy bush ( <i>Euryops pectinatus</i> ), Blue ( <i>Felicia amellioides</i> )	Gerbera daisy ( <i>Gerbera jamesonii</i> )
Daisy, Shasta (var. Alaska) ( <i>Chrysanthemum maximum</i> )	Geum (var. Lady Strathedon, Mrs. Bradshaw, Mrs. Bradshaw Improved) ( <i>Geum quellyon</i> )
Daylily ( <i>Hemerocallis hybrids</i> )	Gladiolus ( <i>Gladiolus</i> sp.)
Dianthus ( <i>Dianthus deltoids</i> )	Heather, false ( <i>Cuphea hyssopifolia</i> )
Dragonhead, false ( <i>Physostegia virginiana</i> )	Honeysuckle, amar ( <i>Lonicera maachii</i> )
Dusty Miller ( <i>Centaurea cineraria</i> )	Honeysuckle, fly (var. Emerald Mound, Clavey's Dwarf) ( <i>Lonicera xylosteum</i> )
Fern, sprenger asparagus ( <i>Asparagus densiflorus Sprengerii</i> )	Honeysuckle, Japanese ( <i>Lonicera japonica</i> )
Fescue, blue ( <i>Festuca ovina</i> )	Honeysuckle, morrow ( <i>Lonicera morrowii</i> )
Flowering tobacco ( <i>Nicotiana</i> sp.)	Honeysuckle, tatarian (var. Zabeli) ( <i>Lonicera tatarica</i> )
Fountain grass, red ( <i>Pennisetum setaceum</i> )	Hopseed bush, purple (var. Purpurea) ( <i>Dodonaea viscosa</i> )
Gazania ( <i>Gazania ringens leucolaena</i> ) ( <i>Gazania</i> sp.)	Impatiens ( <i>Impatiens</i> sp.)
Geranium ( <i>Geranium</i> sp.)	

(continued)

## Ornamentals and Bedding Plants Tolerant to this product (cont.)

Iris ( <i>Iris</i> sp.)	Lilac, Korean (var. Miss Kim) ( <i>Syringa patula</i> )
Iris, African ( <i>Dietes bicolor</i> )	Lilac, mountain ( <i>Ceanothus griseaus</i> )
Ivy, grape (var. Ellen Danica) ( <i>Cissus rhombifolia</i> )	Lily-of-the-Nile, Peter Pan ( <i>Agapanthus africanus</i> )
Jack-in-the-Pulpit ( <i>Arisaemia pusillum</i> )	Lily-of-the-Valley ( <i>Convallaria majalis</i> )
(Mrs. Bradshaw Improved)	Lobelia ( <i>Lobelia erinus</i> )
Jade plant ( <i>Crassula argentea</i> )	Marigold ( <i>Tagetes</i> sp.)
Jasmine, Madagascar ( <i>Stephanotis floribunda</i> )	Mirror plant ( <i>Coprosma baueri</i> )
Lamb's ear ( <i>Stachys lanata</i> )	Mirror plant, variegated ( <i>Coprosma repens</i> )
Lavender, English ( <i>Lavandula vera</i> )	Moneywort, creeping, Jenny ( <i>Lysimachia nummularia</i> )
Lavender, French ( <i>Lavandula dentate</i> )	Moss, rose ( <i>Portulaca grandiflora</i> )
Lavender, cotton ( <i>Santolina chamaecyparissus</i> )	Moss, sandwort ( <i>Arenaria verna</i> )
Lilac, Chinese ( <i>Syringa chinensis</i> )	Pansy, Johnny-jump-up ( <i>Viola tricolor</i> )
Lilac, common purple (var. Charles Joly, Ludwig Spaeth, Jay tree) ( <i>Syringa vulgaris purpurpa</i> )	Pepper, ornamental ( <i>Capsicum</i> sp.)
Lilac, Meyer (var. Palibin) ( <i>Syringa</i> sp.)	Periwinkle, Madagascar ( <i>Catharanthus roseus</i> ) ( <i>Vinca minor</i> )
	Petunia ( <i>Petunia</i> sp.)

(continued)

## Ornamentals and Bedding Plants Tolerant to this product (cont.)

Phlox, perennial ( <i>Phlox paniculata</i> )	Sweet grass ( <i>Acorus gramineus</i> )
Plantain lily ( <i>Hosta</i> sp.)	Sweet William ( <i>Dianthus barbatus</i> )
Purple loosestrife (var. Morden's Gleam) ( <i>Lythrum virgatum</i> )	Transvaal daisy ( <i>Gerbera jamesonii</i> )
Raspberry ice ( <i>Bougainvillea</i> sp.)	Trumpet vine, blood red ( <i>Distictis buccinatoria</i> )
Sage ( <i>Salvia greggii</i> )	Trumpet vine, lavender ( <i>Clytostoma callistegioides</i> )
Sea pinks, thrift ( <i>Armeria maritima</i> )	Trumpet vine, pink ( <i>Pandorea rosea</i> )
Sedum, stonecrop ( <i>Sedum x rebrotinctum</i> ) (Lavender cotton)	Tulip ( <i>Tulipa</i> spp.)
Shrimp plant ( <i>Justicia brandegeana</i> )	Verbena ( <i>Verbena</i> sp.)
Sky flower, Brazilian ( <i>Duranta stenostachya</i> )	Wandering Jew ( <i>Tradescantia</i> sp.)
Snail vine ( <i>Vigna Caracalla</i> )	Wisteria ( <i>Wisteria sinensis</i> )
Snapdragon ( <i>Antirrhinum majus</i> )	Yarrow (var. Cerise Queen) ( <i>Achillea Millefolium</i> )
Speedwell, spike ( <i>Veronica spicata</i> )	Yarrow, debutante ( <i>Achillea taygetea</i> v.)
Statice, perennial ( <i>Limonium perezii</i> )	Yellow trumpet ( <i>Macfadyena unguis-cati</i> )
Stock ( <i>Mattiola incana</i> )	Zinnia ( <i>Zinnia elegans</i> )

## Ground Covers Tolerant to this product

Aaron's beard ( <i>Hypericum calycinum</i> )	Green carpet ( <i>Herniaria glabra</i> )
Aptenia (var. Red apple) ( <i>Aptenia cordifolia</i> )	Ivy, Algerian ( <i>Hedera canaiensis</i> )
Bergenia, winter-blooming ( <i>Bergenia crassifolia</i> )	Ivy, Boston ( <i>Parthenocissus tricuspidata</i> )
Bugleweed ( <i>Ajuga reptans</i> )	Ivy, English ( <i>Hedera helix</i> )
Capeweed ( <i>Arctotheca calendula</i> )	(var. California)
Carpathian, harebell ( <i>Campanula carpatica</i> )	Ivy, grape (var. Ellen Danica) ( <i>Cissus rhombifolia</i> )
Cinquefoil, spring ( <i>Potentilla tabernaemontani</i> )	Ivy, Hahn's (var. Hahnii) ( <i>Hedera helix</i> )
Coyote brush (var. Twin peaks) ( <i>Baccharis pilularis</i> )	Lantana, lavender ( <i>Lantana montevidensis</i> )
Crownvetch ( <i>Coronilla varia</i> )	Lily-turf, big blue ( <i>Liriope muscari</i> )
Cushion bush ( <i>Calocephalus brownii</i> )	Lippia ( <i>Phyla nodiflora</i> )
Daisy, freeway ( <i>Osteospermum</i> )	Mondo grass ( <i>Ophiopogon japonicas</i> )
Daisy, trailing African ( <i>Osteospermum</i> )	Myoporum (var. Prostratum) ( <i>Myoporum parvifolium</i> )
Daisy, white African ( <i>Osteospermum fruticosum alba</i> )	Pachysandra ( <i>Pachysandra terminalis</i> )
Gazania, trailing ( <i>Gazania regens leucolaena</i> )	Periwinkle ( <i>Vinca major</i> )
	Plumbago, dwarf ( <i>Ceratostigma plumbaginoides</i> )

(continued)

## Ground Covers Tolerant to this product (cont.)

Pork and beans  
(*Sedum rubrotinctum*)

Rosea ice plant  
(*Drosanthemum  
floribundum*)

Rosemary, dwarf  
(var. *Prostratus*)  
(*Rosmarinus officinalis*)

Rupture wort  
(*Herniaria glabra*)

St. Johnswort, creeping  
(*Hypericum calycinum*)

Stonecrop, sedum  
(*Sedum rubrotinctum*)

Verbena  
(*Verbena officinalis*)

Verbena, blue  
(*Verbena peruviana*)

## Wildflowers Tolerant to this product

African daisy  
*Dimorphotheca  
aurantiaca*

Baby blue eyes  
*Nemophila insignis*

Baby snapdragon  
*Linaria macrocanna*

Baby's breath  
*Gypsophila muralis*

Bachelor button  
*Centaurea cyanus*

Bird's eyes  
*Gilia tricolor*

Black-eyed Susan  
*Rudbeckia hirta*

Blanketflower  
*Gaillardia aristata*

Blue fescue  
*Festuca ovina glauca*

Blue flax  
*Linum lewisii*

Butterflyweed  
*Asclepias tuberosa*

Calendula  
*Calendula officinalis*

California poppy  
*Eschscholzia californica*

Calliopsis  
*Coreopsis tinctoria*

Candytuft  
*Iberis sempervirens*

Carnation  
*Dianthus*

Catchfly  
*Silene armeria*

Chicory  
*Chicory intybus*

Chinese houses  
*Collinsia heterophylla*

Columbine  
*Aquilegia* spp.

(continued)



## Wildflowers Tolerant to this product (cont.)

Corn poppy <i>Papaver rhoeas</i>	Lance-leaved coreopsis <i>Coreopsis lanceolata</i>
Cornflower <i>Centaurea cyanus</i>	Lemon mint <i>Monarda citriodora</i>
Cosmos <i>Cosmos bipinnatus</i>	Liatris <i>Liatris spicata</i>
Creeping daisy	Lupine <i>Lupinus</i> spp.
Dames rocket <i>Hesperis matronalis</i>	Moss verbena <i>Verbena tenuisecta</i>
Drummond phlox <i>Phlox drummondii</i>	New England aster <i>Aster novi-anglae</i>
Dwarf primrose <i>Oenothera</i> sp.	Nodding catchfly pink <i>Silene</i> sp.
Firewheel <i>Gaillardia pulchella</i>	Oxeye daisy <i>Chrysanthemum leucanthemum</i>
Five spot comflower <i>Centaurea</i> sp.	Painted daisy <i>Chrysanthemum carinatum</i>
Foxglove <i>Digitalis purpurea</i>	Perennial lupine <i>Lupinus perennis</i>
Godetia <i>Clarkia amoena</i>	Plains coreopsis <i>Coreopsis tinctoria</i>
Grayhead coneflower <i>Echinacea pallid</i>	Poor man's weather glass Prairie aster <i>Machaeranthera tanacetifolia</i>
Hard fescue <i>Festuca longifolium</i>	Purple coneflower <i>Echinacea purpurea</i>
Indian blanket <i>Gaillardia pulchella</i>	Purpleknot toadflax <i>Linaria</i> sp.
Indian paintbrush <i>Castilleja coccinea</i>	Queen Anne's lace <i>Daucus carota</i>
Jewels of Opar <i>Talinum paniculatum</i>	
Johnny-jump-up <i>Viola pedata</i>	

(continued)

## Wildflowers Tolerant to this product (cont.)

Red ribbons

*Clarkia concinna*

Rocket larkspur

*Delphinium ajacis*

Sainfoin

*Conobrychis vicifolia*

Sand bluebonnet

*Lupinus subcarneus*

Scarlet flax

*Linum rubrum*

Showy primrose

*Oenothera speciosa*

Siberian wallflower

*Cheiranthus* spp.

Spurred snapdragon

*Linaria macrocarpa*

Stock

*Matthiola maritime*

Sulfur cosmos

*Cosmos sulfureus*

Sweet alyssum

*Lobularia maritime*

Sweet William

*Dianthus barbatus*

Texas bluebonnet

*Lupinus texensis*

Tickseed

*Coreopsis lanceolata*

Tidy tips

*Layia platyglossa*

Virginian stock

*Malcolmia maritime*

Wallflower

*Cheiranthus allionii*

White yarrow

*Achillea millefolium*

In limited testing with the following plants, some unacceptable phytotoxicity has been found, though usually occurring at application rates above those recommended on the product label.

## Trees

Red oak

*Quercus rubra*

White oak

*Quercus alba*

<b>Shrubs</b>	
Azalea (var. snow)	<i>Rhododendron sp.</i>
Potentilla (var. Jackmanni, K. VanDyke)	<i>Potentilla fruticosa</i> <i>Potentilla verna</i>
Privet, Japanese	<i>Ligustrum japonica</i>
<b>Ornamentals</b>	
Snow-in-summer	<i>Cerastium tomentosum</i>

<b>Nonbearing Food Crops and Nursery Liners Tolerant to this product</b>			
Almonds	Crabapples	Macadamias	Pistachios
Apples	Cranberries	Nectarines	Plums
Apricots	Dates	Olives	Pomegranates
Asparagus	Figs	Oranges	Prunes
Avocados	Grapefruits	Peaches	Raspberries
Blackberries	Grapes	Peanuts, perennial	Tangelos
Blueberries	Lemons	Pears	Tangerines
Cherries	Limes	Pecans	Walnuts
<b>DO NOT</b> apply to nonbearing food crops within 1 year of harvest.			

<b>Weeds listed in This Label</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Bahiagrass Barnyardgrass (Watergrass)	<i>Paspalum notatum</i> <i>Echinochloa crus-galli</i>

(continued)

## Weeds listed in This Label (continued)

Bentgrass, (Highland/ Colonial)	<i>Agrostic tenuis</i>
Bermudagrass (Wiregrass)	<i>Cynodon dactylon</i>
Bluegrass, annual	<i>Poa annua</i>
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Brome, downy	<i>Bormus tectorum</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Cupgrass, woolly	<i>Eriochloa villosa</i>
Fescue, fine	<i>Festuca sp.</i>
Fescue, Chewings	<i>Festuca rubra</i>
Fescue, creeping red	<i>Festuca rubra</i>
Fescue, hard	<i>Festuca longifolia</i>
Fescue, rattail	<i>Festuca myuros</i>
Fescue, sheep	<i>Festuca ovina</i>
Fescue, tall	<i>Festuca arundinacea</i>
Foxtail, giant (Pigeongrass)	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Johnsongrass	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Lovegrass	<i>Eragrostis cilianensis</i>
Orchardgrass	<i>Dactylis glomerata</i>
Panicum, browntop	<i>Panicum fasciculatu</i>
Panicum, fall	<i>Panicum</i> <i>dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Quackgrass	<i>Agropyron repens</i>
Red sprangletop	<i>Laptochloa filiformis</i>
Ryegrass, annual	<i>Lolium multiflorum</i>
Sandbur, field	<i>Cenchrus incertus</i>

(continued)

## Weeds listed in This Label (continued)

Shattercane/Wildcane	<i>Sorahum bicolor</i>
Torpedograss	<i>Panicum repens</i>
Velvetgrass, German	<i>Holcus mollis</i>
Volunteer barley	<i>Hordeum vulgare</i>
Volunteer oats	<i>Avena sativa</i>
Volunteer rye	<i>Secale Cereale</i>
Volunteer wheat	<i>Triticum aestivum</i>
Wild oats	<i>Avena fatua</i>
Wild proso millet	<i>Panicum miliaceum</i>
Wirestem muhly	<i>Muhlenbergia frondosa</i>
Witchgrass	<i>Panicum capillare</i>

## Sites

This product can be used on the following sites:

Airports	Perennial peanuts (nonfood)
Bedding plants	Pipeline pumping stations
Centipedegrass and fine fescue turf	Potting soil and topsoil
Drug and medicinal crops	Public buildings
Electrical transformer stations	Recreation areas
Fences and hedgerows	Sewage disposal areas
Fine fescue seed production	Shrubs
General indoor/outdoor sites	Storage yards
Ground covers	Trees, Christmas trees
Industrial sites	Uncultivated agricultural areas
Other paved areas	Wildflowers

See inside for complete restrictions and limitations and **Application Instructions**.

## **Storage and Disposal for Homeowner Use**

**Pesticide Storage.** Keep pesticide in original container. **DO NOT** put concentrate or dilute spray into food, feed or drink containers. Avoid contamination of feed and foodstuffs. Store in a cool, dry place, preferably in a locked storage area. **DO NOT** store diluted spray.

### **Container Disposal**

**Nonrefillable container. DO NOT reuse this container.** When empty, offer for recycling, if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

## **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BONIDE PRODUCTS, INC. ("BONIDE") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BONIDE warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

## **Conditions of Sale and Warranty Cont.**

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