

# AVATAR™

CLETHODIM GROUP 1 HERBICIDE

## HERBICIDE FOR USE ON LISTED CROPS

### ACTIVE INGREDIENT:

\*Clethodim ..... 26.4%

### OTHER INGREDIENTS\*\*:

..... 73.6%

### TOTAL:

..... 100.0%

\*(E)-2-[1[[[(3-chloro-2-propenyl)-oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

\*\*Contains Petroleum Distillates

Contains 2.0 lbs. clethodim per gallon.

## KEEP OUT OF REACH OF CHILDREN WARNING / AVISO

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.)

**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.**

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# HERBICIDE



Distributed By:  
**INNICTIS® CROP CARE, LLC**  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

## FIRST AID

<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye 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 eye.</li><li>• Call a poison control center or doctor for treatment advice.</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 SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• <b>DO NOT</b> induce vomiting unless told to do so 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 INHALED:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

## HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time or your poison control center at 1-800-222-1222.

## NOTE TO PHYSICIAN

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.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye irritation. Avoid contact with skin. **DO NOT** get in eyes, on skin or on clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves made of Barrier Laminat<sup>e</sup> or Viton  $\geq$  14 mils, shoes plus socks, and protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. 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.

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash thoroughly with soap and water after handling and 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

**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.

## Non-Target Organisms Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

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 are 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

**Combustible: 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 the entire label. 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.**

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, made of Barrier Laminat<sup>e</sup> or Viton  $\geq$  14 mils, shoes plus socks, and protective eyewear.

## 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, forest, 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.

## RESISTANCE MANAGEMENT

For resistance management, this product is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 1 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

## Weed Management

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 1 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact INNICTIS CROP CARE, LLC at 855-466-8428.

## Management of Resistant Biotypes

The following good agronomic practices are recommended to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this Mode of Actions have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

## Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

## TANK MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## PRODUCT INFORMATION

**FOR USE ON:** Alfalfa; Bean, Dry except Soybean Dried Shelled Pea and Bean (except soybean) Subgroup 6C; Bean, Succulent Shelled Succulent Shelled Pea and Bean Subgroup 6B; Berry Low Growing (except Cranberry and Strawberry) Subgroup 13-07G; Brassica Head and Stem Vegetable Crop Group 5-16; Brassica Leafy Greens Subgroup 4-16B (except Radish Leaves, Turnip Greens and Watercress); Canola\* Rapeseed Subgroup 20A (except flax seed, mustard seed and sesame seed); Carrot; Clover; Conifer Trees; Cotton (including cotton grown for seed); Cranberry; Fallow Land (and other non-producing agricultural areas); Flax\*; Fruiting Vegetable (except Okra and Tomato) Crop Group 8-10; Garden Beet; Herbs Subgroup 19A; Hops; Leaf Petiole Vegetables Subgroup 22B; Leafy Greens Subgroup 4-16; Legume Vegetables, Edible Podded Subgroup 6A; Melon Subgroup 9A; Mint (Peppermint tops and Spearmint tops); Mustard Seed\*; Non-Crop or Non-Planted Areas; Non-Bearing Fruit and Nut Crops; Okra\*; Onion (Dry Bulb Only) Bulb Onion Subgroup 3-07A; Onion, Green; Subgroup 3-07B; Ornamentals; Pea, Dried Shelled Subgroup 6C; Pea, Succulent Shelled Subgroup 6B; Peanut (including Perennial); Pome Fruit Crop Group 11-10; Potato; Radish and Radish Leaves; Root Vegetables Subgroup 1B (except Sugar Beet and Radish); Safflower; Sesame; Soybean; Squash/Cucumber Subgroup 9B; Stalk and Stem Vegetable\* Subgroup 22A; Stevia, dried leaves; Stone Fruit Crop Group 12-12; Strawberry; Sugar Beet; Sunflower Subgroup 20B; Tomato; Tree Nuts Crop Group 14-12; Tuberos and Corm Vegetables Subgroup 1C (except Potato); Turnip Greens; and Watercress\*; \*Not for use in California

## Precautions

- This product is a selective postemergence herbicide for control of annual and perennial grasses. This product does not control sedges or broadleaf weeds.
- 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, result in a very staggered, non-uniform weed emergence. Due to this non-uniform weed emergence, no fewer than two applications of this product per year are specified at the appropriate weed-growth stage rate under continuous no-till conditions.
- Grass crops including corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to this product.
- While all the vegetable crops on this label have been tested and are tolerant to this product, not all specialty varieties of these crops have been tested. It is advised that, before applying this product to specialty varieties of vegetable crops on this label, crop tolerance be investigated first using a small section of the field. It is possible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.
- Tank mixes of this product and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of this product may be necessary.

## Restrictions

- In Nassau and Suffolk Counties of New York State, application rate is limited to 16 fluid ounces of this product (0.25 lb. a.i.) per acre per year.
- **DO NOT** apply if rain is expected within 1 hour of application as control may be unsatisfactory.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.
- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided on this label.
- **DO NOT** apply a postemergence broadleaf herbicide within one day following application of this product or reduced grass control may result.

- **DO NOT** apply under conditions of stress. Applying this product 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 this product effectively, and will be less susceptible to herbicide activity.
- **DO NOT** allow this product 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.
- **DO NOT** plant rotational crops until 30 days after application of this product unless the crop is listed on this label.
- For tank mixes, it is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## APPLICATION INFORMATION

### Timing of Applications

Apply *AVATAR* postemergence to actively growing grasses according to rate table instructions. Applications made to grass plants stressed by insufficient moisture, or hot or cold temperatures, or to grass plants exceeding listed growth stages may result in unsatisfactory control. **DO NOT** apply under these conditions.

In arid regions where irrigation is used to supplement limited rainfall, apply *AVATAR* as soon as possible, after irrigation (within 7 days). In arid regions, a second application of *AVATAR* 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 *AVATAR* may reduce weed control. **DO NOT** apply *AVATAR* if rainfall is expected within one hour, since control may be reduced.

### 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.

### ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

CROP	ADJUVANT USE INSTRUCTIONS
Alfalfa, Cotton, Dried Shelled Pea and Bean (except soybean) Subgroup 6C, Edible Podded Legume Vegetables Subgroup 6A, Peanuts (including perennial), Potato, Soybean, Succulent Shelled Pea and Bean Subgroup 6B, Sugar Beet and Sunflower Subgroup 20B	Always use a crop oil concentrate* at 1.0 quart per acre by ground or 1% v/v (but not less than 1 pint per acre) in the finished spray volume by air.  1 to 2 quarts per acre of liquid fertilizer (10-34-0, 28%N or 32%N), or an equivalent amount (2.5 to 4.0 pounds per acre) of spray grade ammonium sulfate (AMS) may be added to <i>AVATAR</i> applications, in addition to the specified rate of crop oil concentrate. The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

CROP	ADJUVANT USE INSTRUCTIONS
Brassica Head and Stem Vegetables Crop Group 5-16, Canola Rapeseed Subgroup 20A (except flax seed, mustard seed and sesame seed), Brassica Leafy Greens Subgroup 4-16B (except Radish Leaves, Turnip Greens and Watercress); Carrot, Clover, Cranberry, Flax, Fruiting Vegetable (except Okra and Tomato) Crop Group 8-10, Garden Beet, Herbs Subgroup 19A, Hops, Leaf Petioles Vegetables Subgroup 22B, Onion (Dry Bulb Only) Onion, Green Subgroup 3-07B, Root Vegetables Subgroup 1B (except Sugar Beet and Radish), Safflower, Sesame, Squash/ Cucumber Subgroup 9B, Stalk and Stem Vegetable Subgroup 22A, Strawberry, Tomato and Tuberous and Corm Vegetables Subgroup Subgroup 1C (except Potato)	Always use a crop oil concentrate at 1% v/v in the finished spray volume unless tank mix instructions indicate otherwise.  Addition of liquid fertilizer is not specified for these crops.
Non-Bearing Fruit and Nut Crops, Ornamental Plants	Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v). Use of crop oil concentrate is not specified since it may injure flowers and foliage.
Conifer Trees, Fallow Land (and other non-producing agricultural areas), and 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 pint per acre) 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 gallons and a maximum of 40 gallons of spray solution per acre. Under the following conditions a minimum of 10 gallons per acre is required: ultra narrow row cotton,

narrow row soybeans, broadleaf herbicide tank mixes, 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 gallons per acre under these conditions can result in poor coverage and reduced grass control requiring repeat applications. Spray pressures must reflect a minimum of 30 psi and a maximum of 60 psi at the nozzle.

Applications to onions (dry bulbs and green), garlic, and shallots (dry bulbs and green) must be made in a minimum of 20 gallons of spray solution per acre.

#### Air Application

Use a minimum of 3 gallons of spray solution per acre unless otherwise directed in this label. Increase spray volumes up to 10 gallons as grass or crop foliage becomes dense. For onions (dry bulbs and green), garlic, or shallots (dry bulbs and green): When applying by air **DO NOT** exceed 8 fluid ounces (0.125 lb. ai) per acre in a single application. In California, air applications to onions, garlic or shallots must be made in a minimum of 20 gallons of spray solution per acre. In states other than California, air application to onions, garlic, or shallots must be made in a minimum of 10 gallons of spray solution per acre.

#### Spot Treatment

When using hand sprayers or high volume sprayers utilizing hand guns, mix 1/4% to 1/2% (0.33 to 0.65 fluid ounces per gallon.) *AVATAR* 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 fluid ounces per gallon) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at 1.4% (0.33 fluid ounces per gallon) by volume.

#### Precautions

- **Air Application:** Crop injury may occur when this product is applied to onions, garlic or shallots with aerial equipment.

#### Restrictions

- **Ground Application:** **DO NOT** use flood nozzles.
- **Spot Treatment:** **DO NOT** exceed the maximum rate allowed on a "per acre" basis.

#### CHEMIGATION – ONION (Dry Bulb and Green) AND GARLIC SPRINKLER IRRIGATION APPLICATION

May be applied to onions and garlic by sprinkler irrigation systems.

Apply *AVATAR* at the high rate specified for annual grasses (16 fluid ounces (0.265 lb ai) per acre) when the grass height is at the low end of the range (application to larger grasses may not provide adequate control). Add a crop concentrate containing at least 15% emulsifier at 1 quart per acre.

Apply *AVATAR* in 0.1 to 0.2 acre-inch of water either at the end of a regular irrigation set or as a separate application not associated with a regular irrigation using the least amount of water that provides proper distribution and coverage. Application of more than label specified quantities of irrigation water per acre may result in decreased production performance by removing the chemical from the zone of effectiveness. Use a metering device to inject the *AVATAR* into the irrigation water at a constant flow. Constant agitation must be maintained in the chemical supply tank during the entire period of herbicide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period.

**DO NOT** apply *AVATAR* through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

#### Precautions

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.
- If you have any questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.
- A person knowledgeable of the chemigation system and responsible for its operation or under supervision of the responsible person, must shut the system down and make necessary adjustments must be made.

#### Restrictions

- **DO NOT** apply this product by chemigation in the states of Idaho, Montana, Oregon and Washington.
- **DO NOT** apply by chemigation to any other crop, or to this crop using any other type of irrigation system.
- **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally close solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

#### MANDATORY SPRAY DRIFT

##### Aerial Applications

- **DO NOT** release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

##### Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Table 1. CROP SPECIFIC USE DIRECTIONS AND RESTRICTIONS FOR AVATAR**

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<p><b>Alfalfa</b> including: Sainfoin Holy Clover Birdsfoot trefoil <sup>(3)</sup></p>	<p>15 days before grazing, feeding or harvesting (cutting) for forage or hay</p>	<p>6-16 fl. oz. <sup>(4)</sup> (0.094 – 0.25 lb ai)</p>	<p>1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(5)</sup></p>	<p>Refer to tank mix partners for feeding, grazing and harvesting restrictions. <sup>(5,6)</sup></p> <p>The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.</p> <p>For repeat applications, make on a minimum of a 14 day interval.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>
<p><b>Bean, Dry except Soybean [Dried Shelled Pea and Bean (except soybean) Subgroup 6C]</b> Bean (<i>Lupinus</i> spp.) Grain Sweet White White Sweet Bean (<i>Phaseolus</i> spp.) Field Kidney Lima (dry) Navy Pinto Tepary Bean (<i>Vigna</i> spp.) Adzuki Bean Black-eyed Pea Catjang Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea Urd Bean Broad (dry) Chickpea (garbanzo) Guar Lablab Bean Lentil</p>	<p>30 days</p>	<p>6-16 fl. oz. (0.094 – 0.25 lb ai).</p>	<p>1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(5)</sup></p>	<p>For repeat applications make on a minimum of 14 day interval.</p> <p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than eight applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Bean, Succulent Shelled [Succulent Shelled Pea and Bean Subgroup 6B]</b> including: Bean ( <i>Phaseolus</i> spp.) Broad Bean (succulent) Lima Bean (green) Bean ( <i>Vigna</i> spp.) Black-eyed Pea Cowpea Southern Pea	21 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(5)</sup>	Refer to appropriate Table for reduced rate directions for the control of small annual grasses.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre in a single application.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> apply more than 1 application per acre.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than two applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<b>Beet, Garden</b>	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Berry Low Growing (except Cranberry and Strawberry) Subgroup 13-07G</b> including: Bearberry Bilberry Blueberry, lowbush Cloudberry Lingonberry Muntries Partridgeberry	45 days	4-8 fl. oz. (0.063- 0.125 lb ai)	Non-ionic surfactant (NIS) at 0.25 % v/v	For repeat applications make on a minimum of a 14 day interval.  Verify crop safety to this product on a small area of the crop, at the desired rate and with the same non-ionic surfactant (NIS) that will be used on the field. If not crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year</li> </ul>



Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Brassica Head and Stem Vegetable Crop Group 5-16</b> including: Broccoli Brussels sprouts Cabbage Cabbage, Chinese (napa) Cauliflower cultivars, varieties and/or hybrids of these commodities	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Brassica Leafy Greens Subgroup 4-16B (except Radish Leaves, Turnip Greens and Watercress)</b> including: Arugula Broccoli, Chinese Broccoli Raab Cabbage, Abyssinian Cabbage, Chinese (bok choy) Cabbage, Seakale Collards Cress, Garden Cress, Upland Hanover Salad Kale Maca (leaves) Mizuna Mustard Greens Rape Greens Rocket, Wild Shepherd's Purse cultivars, varieties, and/or hybrids of these commodities	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Canola Rapeseed Subgroup 20A (except flax seed, mustard seed and sesame seed)</b> (Not for use in California) including Borage Crambe Cuphea Echium Gold of Pleasure (Camelina) Hare's Ear Mustard Lesquerella Lunaria Meadowfoam Milkweed Oil Radish Poppy seed Rapeseed (canola) Sweet Rocket	70 days	4-6 fl. oz. (0.063 – 0.094 lb ai)	1% w/v in the finished spray volume.	Verify crop safety to this product on a small area of the crop, at the desired rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6 fl. oz. (0.094 lb. ai) per acre per application.</li> <li>• For Annual and Perennial Grasses: <b>DO NOT</b> make more than 1 application at 6 fl oz (0.094 lb ai) per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 1 application at 4 fl oz (0.0625 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting. Crop injury may occur when this product is applied during the bloom period.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
Carrot	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
Clover	15 days before grazing, feeding, or harvesting (cutting) for forage or hay	6-16 fl. oz. (0.094 – 0.25 lb ai)	1% w/v in the finished spray volume.	<p>For use on clover grown in the states of Idaho, Oregon and Washington only.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> exceed 16 fl. oz. (0.25 lb. ai) per acre in a year.</li> <li>• <b>DO NOT</b> make more than 1 application per year.</li> </ul>
Cotton (including cotton grown for seed)	60 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(6)</sup>	<p>The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.</p> <p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> graze treated fields or feed treated forage or hay to livestock.</li> </ul>
Cranberry	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai)/A per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply between the "hook" stage and full fruit set.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<p><b>Fallow Land</b>  <b>Conifer Trees</b>            (and other non-producing agricultural areas)</p> <p><b>Non-Crop or Non-Planted Areas</b></p>	N/A	6-16 fl. oz. (0.094 – 0.25 lb ai)	1% w/v (but not less than 1 pt./A) in the finished spray volume using a crop oil concentrate containing at least 15% emulsifier.	For repeat applications make on a minimum of a 14 day interval. <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> plant any crop for 30 days after application unless clethodim is registered for use in that crop.</li> </ul>
<p><b>Flax</b>            (Not for use in California)</p>	60 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	Apply prior to bloom. Crop injury may occur when this product is applied during the bloom period. For repeat applications make on a minimum of a 14 day interval. <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> exceed 16 fl. oz (0.25 lb. ai) per acre in a year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 4 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<p><b>Fruiting Vegetables</b>  <b>(except Okra and Tomato) Crop Group 8-10</b> including:            African Eggplant            Bush Tomato            Bell Pepper            Cocona            Currant Tomato            Eggplant            Garden Huckleberry            Goji Berry            Groundcherry            Martynia            Naranjilla            Pea Eggplant            Pepino            Nonbell Pepper            Roselle            Scarlet Eggplant            Sunberry            Tomatillo            Tree Tomato            Cultivars, varieties, and/or hybrids of these.</p>	20 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval. <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Herbs Subgroup 19</b> including: Angelica Balm Basil Borage Burnet Camomile Catnip Chervil (dried) Chive Chive, Chinese Clary Coriander (leaf) Costmary Culantro (leaf) Curry (leaf) Dill (dillweed) Horehound Hyssop Lavender Lovage (leaf) Marigold Marjoram ( <i>Origanum</i> spp.) Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  This product has not been tested on all herbs, and herb varieties. It is the responsibility of the user to test this product on a small portion of the crop to be treated before treating the entire field.  Verify crop to this product on a small area of the herb crop, at the desired rate of this product and with the same crop oil concentrate that will be used on the herb field. If no crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same crop oil used in the tolerance test.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Hops</b>	21 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Leaf Petiole Vegetables Subgroup 22B</b> including: Cardoon Celery Celery, Chinese Fuki Rhubarb Udo Zuiki cultivars, varieties, and/or hybrids of these commodities	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Leafy Greens</b> <b>Subgroup 4-16A</b> including: Amaranth, Chinese Amaranth, Leafy Aster, Indian Blackjack Cat's Whiskers Cham-chwi Cham-na-mul Chervil (fresh leaves) Chipilin Chrysanthemum, Garland Cilantro (fresh leaves) Corn Salad Cosmos Dandelion (leaves) Dang-gwi (leaves) Dillweed Dock Dol-nam-mul Ebolo Endive Escarole Fameflower Feather Cockscomb Good King Henry Huauzontle Jute (leaves) Lettuce, Bitter Lettuce, Head Lettuce, Leaf Orach Parsley (fresh leaves) Plantain, Buckhorn Primrose, English Purslane, Garden Purslane, Winter Radicchio Spinach Spinach, Malabar Spinach, New Zealand Spinach, Tanier Swiss Chard Violet, Chinese (leaves) Cultivars, varieties, and/or hybrids of these commodities	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Legume Vegetables, Edible Podded Subgroup 6A</b> including: Bean ( <i>Phaseolus</i> spp.) Runner Snap Wax Bean ( <i>Vigna</i> spp.) Asparagus Chinese Longbean Moth Yardlong Jackbean Pea ( <i>Pisum</i> spp.) Dwarf Edible-pod Snow Sugar Snap Pigeon Sword Bean	21 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(6)</sup>	For peas apply before bloom, but no later than 21 days before harvest.  Refer to appropriate Table for reduced rate directions for the control of small annual grasses.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> apply more than 1 application per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<b>Melon Subgroup 9A</b> including Citron melon Muskmelon (including cantaloupe) Watermelon	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Mint</b> (Peppermint tops and Spearmint tops)	21 days	6-16 fl. oz. <sup>(4)</sup> (0.094 – 0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A by air.)	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Mustard Seed</b> (Not for use in California)	75 days	4-6 fl. oz. (0.063 – 0.094 lb ai)	1% w/v in the finished spray volume.	<b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6 fl. oz. (0.094 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 12 fl. oz. (0.188 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 application per year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting. Crop injury may occur when this product is applied during the bloom period.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 3 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<b>Okra</b> (Not for use in California)	3 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 application per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<p><b>Onion (Dry Bulb Only) Bulb Onion Subgroup 3-07A</b> including</p> <ul style="list-style-type: none"> <li>Daylily, Bulb</li> <li>Fritillaria, Bulb</li> <li>Garlic, Bulb</li> <li>Garlic, Great-headed, Bulb</li> <li>Garlic, Serpent, Bulb</li> <li>Lily, Bulb</li> <li>Onion, Bulb</li> <li>Onion, Chinese, Bulb</li> <li>Onion, Pearl</li> <li>Onion, Potato, Bulb</li> <li>Shallot, Bulb</li> <li>Cultivars, varieties, and/or hybrids of these.</li> </ul>	45 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1% w/v in the finished spray volume.	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Minimum of 20 gallons per acre spray volume by ground in entire U.S.</p> <p>Minimum of 20 gallons per acre spray volume by air in California.</p> <p>In states other than California, air application to onions, garlic or shallots must be made in a minimum of 10 gallons per acre.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• When applying by air, <b>DO NOT</b> exceed 8 fl oz (0.125 lb ai) per acre per application and 16 fl oz (0.25 lb ai) per acre per year.</li> <li>• If this product is applied as a spot treatment to onion or garlic, <b>DO NOT</b> exceed the maximum rate allowed on a “per acre” basis.</li> <li>• In California, <b>DO NOT</b> apply this product to garlic or onion until the crop has at least two full leaves. Use a 14 day spray interval between the application of this product and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.</li> </ul> <p><b>For Garlic</b></p> <ul style="list-style-type: none"> <li>• When applying by ground, <b>DO NOT</b> exceed 8 fl oz (0.125 lb ai) per acre per application or 16 fl oz (0.250 lb ai) per acre per year.</li> </ul>



Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Onion, Green Subgroup 3-07B</b> including: Chive (fresh leaves) Chive, Chinese (fresh leaves) Elegans Hosta Fritillaria (leaves) Kurrat Lady's Leek Leek Leek, Wild Onion, Beltsville (bunching) Onion (fresh) Onion, Green Onion, Macrostem Onion, Tree (tops) Onion, Welsh (tops) Shallot (fresh leaves) Cultivars, varieties, and/or hybrids of these commodities.	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For air applications to onion, <b>DO NOT</b> exceed 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• In California for air applications to onion, <b>DO NOT</b> exceed 2 applications per year.</li> <li>• If this product is applied as a spot treatment to onion or garlic, <b>DO NOT</b> exceed the maximum rate allowed on a "per acre" basis.</li> <li>• In California, <b>DO NOT</b> apply this product to onion or garlic until the crop has at least two full leaves. Use a 14 day spray interval between the application of this product and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.</li> </ul>
<b>Ornamentals</b>	N/A	6-16 fl. oz. (0.094 – 0.25 lb ai)	Use of crop oil concentrate is not advised since it may injure flowers and foliage. See Specific Use Directions.	For repeat applications make a minimum of a 14 day interval.  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 this product application.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Non-Bearing Fruit and Nut Crops</b>	N/A	6-8 fl. oz. (0.094 – 0.125 lb ai)	Use of crop oil concentrate is not advised since it may injure flowers and foliage. See Specific Use Directions.	<p>For repeat applications, make a minimum of a 14 day interval.</p> <p>Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pint. per 50 gallons (0.25% v/v).</p> <p>Sugar maples cannot be tapped for syrup within one year of this product application.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Must be applied to non-bearing fruit or nut crops which are grown for root stock.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Pea, Dried Shelled Subgroup 6C</b> including: Pea ( <i>Pisum</i> spp.) Field Pigeon	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(6)</sup>	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Apply before bloom but not later than 30 days prior to harvest.</p> <p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.</p> <p>Application of this product to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> apply more than 1 application per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than two applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Pea, Succulent Shelled Subgroup 6B</b> including: Pea ( <i>Pisum</i> spp.) English Pea Garden Pea Green Pea Pigeon Pea	21 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(6)</sup>	Apply before bloom but not later than 21 days prior to harvest.  Refer to appropriate Table for reduced rate directions for the control of small annual grasses.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> apply more than 1 application per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 4 fl oz (0.625 lb ai) per acre per year.</li> </ul>
<b>Peanut</b> (including Perennial)	40 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(6)</sup>	The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Pome Fruit Crop Group 11-10</b> including Apple Azarole Crabapple Loquat Mayhaw Medlar Pear Pear, Asian Quince Quince, Chinese Quince, Japanese Tejocote	14 days	4-8 fl. oz. (0.063 – 0.125 lb ai)	Non-ionic surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Potato</b>	30 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A.) by air. <sup>(5)</sup>	For repeat applications, make on a minimum of a 14 day interval.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>
<b>Radish</b> <b>Radish Leaves</b>	15 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>
<b>Root Vegetables Subgroup 1B (except Sugar Beet and Radish),</b> including: Burdock, Edible Celeriac Chervil, Turnip Rooted Chicory Ginseng Horseradish Parsley, Turnip Rooted Parsnip Radish, Oriental Rutabaga Salsify Salsify, Black Salsify, Spanish Skirret Turnip	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Safflower</b>	70 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
Sesame	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply during flowering.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
Soybean	60 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1 qt. by ground or 1% w/v (but not less than 1 pt./A) by air. <sup>(5)</sup>	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> graze treated fields or feed treated forage or hay to livestock.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 8 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<b>Squash/Cucumber Subgroup 9B</b> including Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra) <i>Momordica</i> spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber) Pumpkin Squash, Summer Squash, Winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash)	14 days	6-8 fl. oz (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>Restrictions</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Stalk and Stem Vegetable Subgroup 22A</b> (Not for use in California) including Agave Aloe Vera Asparagus Bamboo Shoots Celtuce Fennel, Florence (fresh leaves and stalk) Fern, Fiddlehead (edible) Kale, Sea Kohlrabi Palm Hearts Prickly Pear (pads) Prickly Pear, Texas (pads) cultivars, varieties, and/or hybrids of these commodities	1 day	6-8 fl. oz (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 16 fl oz (0.25 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> </ul>
<b>Stevia, dried leaves</b>	14 days	4-8 fl. oz. (0.063 – 0.125 lb ai)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14 day interval.  This product has not been tested on all varieties. It is the responsibility of the user to test this product on a small portion of the crop to be treated before treating the entire field.  Verify crop safety to this product on a small area of the crop, at the desired rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Stone Fruit Crop Group 12-12</b> including Apricot Apricot, Japanese Capulin Cherry, Black Cherry, Nanking Cherry, Sweet Cherry, Tart; Jujube, Chinese Nectarine Peach Plum Plum, American Plum, Beach Plum, Canada Plum, Cherry Plum, Chickasaw Plum, Damson Plum, Japanese Plum, Klamath Plum, Prune Plumcot Sloe cultivars, varieties, and/or hybrids of these commodities	14 days	4-8 fl. oz. (0.063 – 0.125 lb ai)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> </ul>
<b>Strawberry</b>	4 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
<b>Sugar Beet</b>	40 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(3)</sup>	For repeat applications make on a minimum of a 14 day interval.  Refer to appropriate Table for reduced rate directions for the control of small annual grasses.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 8 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Sunflower Subgroup 20B</b> including: Calendula Castor Oil Plant Chinese Tallowtree Euphorbia Evening Primrose Jojoba Niger Seed Rose Hip Stokes Aster Tallowwood Tea Oil Plant Vernonia	70 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>(3)</sup>	For repeat applications make on a minimum of a 14 day interval.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  Verify crop safety to this product on a small area of the crop, at the desired rate and with the same crop oil concentrate that will be used on the field. If no crop response is evident seven (7) days after treatment, this product may be used on the entire field at the rate tested and with the same crop oil used in the crop safety test.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 8 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<b>Tomato</b>	20 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1% w/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>



Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
<b>Tree Nuts Crop Group 14-12</b> Including: African Nut-tree Almond Beechnut Brazil Nut Brazilian Pine Bunya Bur Oak Butternut Cajou Nut Candlenut Cashew Chestnut Chinquapin Coconut Coquito Nut Dika Nut Ginkgo Guiana Chestnut Hazelnut (Filbert) Heartnut Hickory Nut Japanese Horse-chestnut Macadamia Nut Mongongo Nut Monkey-pot Monkey Puzzle Nut Okari Nut Pachira Nut Peach Palm Nut Pecan Pequi Pili Nut Pine Nut Pistachio Sapucaia Nut Tropical Almond Walnut, Black Walnut, English Yellowhorn Cultivars, varieties, and/or hybrids of these.	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume	For repeat applications make on a minimum of a 14 day interval.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl.oz (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> </ul>
<b>Tuberous and Corm Vegetables Subgroup Subgroup 1C (except Potato)</b> Including Sweet Potato, Yam Artichoke Chinese Jerusalem Cassava Bitter Sweet Ginger	30 days	6-16 fl. oz. (0.094 – 0.25 lb ai)	1% w/v in the finished spray volume	For repeat applications make on a minimum of a 14 day interval.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> </ul>

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>(2)</sup>	Specific Use Directions and Restrictions
Turnip Greens	14 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.  <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> </ul>
Watercress (Not for use in California)	30 days	6-8 fl. oz. (0.094 – 0.125 lb ai)	1% w/v in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb. ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.50 lb. ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply when watercress is under flooded conditions.</li> <li>• <b>DO NOT</b> apply this product when water is in the field and hold water for at least 24 hours after an application.</li> </ul>

N/A = Not Applicable

<sup>(1)</sup> This product is not to be used on vegetable crops being grown for seed production unless specific use directions are provided.

<sup>(2)</sup> 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.

<sup>(3)</sup> This product may be applied to seedling or established alfalfa grown for seed, hay, silage, green chop or direct grazing.

<sup>(4)</sup> For weed control in established alfalfa and mint (peppermint tops and spearmint tops), the minimum use rate is 10 fluid ounces per acre (0.156 lb ai).

<sup>(5)</sup> 1 to 2 quarts per acre of liquid fertilizer (10-34-0, 28%N or 32%N), or an equivalent amount (2.5 to 4.0 pounds per acre) of spray grade ammonium sulfate (AMS) may be added to applications of this product, in addition to the specified rate of crop oil concentrate.

#### IMPORTANT

Plant tolerance to AVATAR 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, environments conditions, and application techniques, the user must determine if the herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of AVATAR have investigated the safety factor to plants not listed on the label.

**CROP SPECIFIC USE DIRECTIONS, RESTRICTIONS AND LIMITATIONS FOR AVATAR**

Crops <sup>(1)</sup>	Minimum Time From Application to Harvest (PHI)	Annual Grass Use Rate Per Acre <sup>(2)</sup>	Perennial Grass Use Rate Per Acre <sup>(2)</sup>	Adjuvant Directions <sup>(3)</sup>	Ammonium Sulfate Directions <sup>(4)</sup>	Specific Use Instructions And Restrictions
Field Corn <sup>(5)</sup>	90 days	3 fl oz (0.047 lb ai)	-	NIS at 0.25% v/v plus AMS  <b>DO NOT</b> use COC or MSO with this product in this use pattern.	2.5 to 4 lbs/A	<ul style="list-style-type: none"> <li><b>DO NOT</b> make more than 1 application per year.</li> <li><b>DO NOT</b> apply more than 3 fl oz (0.047 lb. ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 3 fl oz (0.047 lb. ai) per acre per year.</li> </ul> <p>To control existing stand, replant no sooner than 6 days after application.</p>

<sup>(1)</sup> **DO NOT** use this product on vegetable crops being grown for seed production unless specific use directions are provided.

<sup>(2)</sup> See annual and perennial grass control tables on the container label for specific use rate directions.

<sup>(3)</sup> Non-ionic surfactant (NIS) in this case refers to an adjuvant containing at least 80% non-ionic surfactant. Crop oil concentrate in this case refers to both crop oil concentrate and crop oil concentrate blends.

<sup>(4)</sup> Use spray grade ammonium sulfate. The use of ammonium sulfate does not take the place of the required adjuvant.

<sup>(5)</sup> For burndown of existing stand of glyphosate-resistant field corn or volunteer glyphosate-resistant field corn prior to replanting field corn. See Directions FOR USE IN GLYPHOSATE-RESISTANT FIELD CORN (BURNDOWN) table.

**DIRECTIONS FOR USE IN GLYPHOSATE-RESISTANT FIELD CORN (BURNDOWN)**

GRASS SPECIES	WEED SIZE (Inches)	Rate when applied alone or with glyphosate
Field Corn	Up to 12	3 fl oz (0.047 lb ai) / acre
<ul style="list-style-type: none"> <li>For control of existing stand of glyphosate-resistant field corn or volunteer glyphosate-resistant field corn prior to replanting field corn.</li> <li>Care must be taken to prevent in-field boom (spray) overlaps or excessive crop injury may occur.</li> <li>Adjuvant directions: NIS at 0.25% v/v plus AMS at 2.5 to 4 pounds per acre.</li> </ul> <p><b>Restrictions</b></p> <ul style="list-style-type: none"> <li><b>DO NOT</b> replant sooner than 6 days after application.</li> <li><b>DO NOT</b> use a COC or MSO with this product in this use pattern.</li> <li><b>DO NOT</b> apply more than 3 fl oz (0.047 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 3 fl oz (0.047 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 1 application per year.</li> </ul>		

**NON-BEARING FRUIT AND NUT CROPS  
SPECIFIC RESTRICTION AND DIRECTION FOR AVATAR**

CROPS		Use Rates Per Acre	Special Use Instructions
Common Name	Scientific Name		
Apples	<i>Malus</i> spp.	6-8 fl. oz. (0.094 – 0.125 lb ai)	Non-bearing fruit and nut crops are plants which will not bear fruit or nuts for at least one year following application of this product.  Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v).  Use of crop oil concentrate is not advised since it may injure flowers and foliage.  Sugar maples cannot be tapped for syrup within one year of application of this product.  For repeat application make on a minimum of a 14 day interval.  Crop injury to non-bearing fruit and nut crops can occur if this product is improperly applied. This product must not be applied directly over the top of these plant types. Instead, direct spray at the base of the plant where grassy weeds are growing near the ground.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• If this product is applied as a spot treatment to non-bearing fruit and nut crops, <b>DO NOT</b> exceed the maximum rate allowed on a "per acre" basis.</li> <li>• This product must not be applied to non-bearing fruit or nut crops which are grown for root stock.</li> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> </ul>
Berries	<i>Vaccinium</i> spp.		
	<i>Rubus</i> spp.		
Cherry, Sweet	<i>Prunus avium</i>		
Citrus Fruits	<i>Citrus</i> spp.		
Grapes	<i>Vitis</i> spp.		
Olive	<i>Olea</i> spp.		
Peach	<i>Prunus persica</i>		
Pears	<i>Pyrus communis</i>		
Prunes	<i>Prunus</i> spp.		
Stone Fruits	<i>Prunus</i> spp.		
Strawberries	<i>Fragaria</i> spp.		
Tree Nuts			
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.		

**CONIFER TREES  
SPECIFIC RESTRICTION AND DIRECTION FOR AVATAR**

CROPS		Use Rates Per Acre	Special Use Instructions
Common Name	Scientific Name		
Arborvitae, American	<i>Thuja occidentalis</i>	6-16 fl. oz. (0.094 – 0.25 lb ai)	<i>AVATAR</i> can be used to control labeled grasses in Christmas tree farms, conifer nurseries, and conifer plantations (but not in forests).  Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v).  For repeat application make on a minimum of a 14 day interval.  <b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl oz (0.25 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year at the 16 fl oz (0.25 lb ai) rate. <b>DO NOT</b> make more than 5 applications per acre per year at the 6 fl oz (0.094 lb ai) rate.</li> </ul>
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-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, and post-harvest croplands. Also beneath greenhouse benches and around golf courses.

**INSTRUCTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS WITH AVATAR**

GRASS SPECIES	WEED STAGE	RATE PER ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height chart above.	Up to and including grasses in the seed head stage.	12 fl oz (0.188 lb ai)	16 fl oz (0.25 lb ai)
Add a crop oil concentrate at 1 quart per acre by ground to the finished spray volume.			
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply as part of a tank mix when applying this product for grass suppression.</li> <li>• <b>DO NOT</b> exceed the maximum per application rate listed in Table 1.</li> <li>• <b>DO NOT</b> exceed the maximum yearly rate listed in Table 1.</li> <li>• <b>DO NOT</b> make more than four applications per year.</li> </ul>			

**ANNUAL GRASSES  
(EXCEPT FOR IN ESTABLISHED ALFALFA AND MINT (PEPPERMINT TOPS AND SPEARMINT TOPS))**

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

**Restrictions**

- **DO NOT** exceed the maximum per application rate listed in **Table 1**.
- **DO NOT** exceed the maximum yearly rate listed in **Table 1**.
- **DO NOT** exceed the maximum number of yearly applications listed in **Table 1**.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE <sup>(1)</sup>
Barryardgrass	<i>Echinochloa crus-galli</i>	2 to 8	6 (0.094)	8 (0.125)
Broadleaf Signalgrass	<i>Brachiaria platyphlla</i>	2 to 6	6 (0.094)	8 (0.125)
Brome				
California	<i>Bromus carinatus</i>	2 to 6	6 (0.094)	8 (0.125)
Cheat	<i>Bromus secalinus</i>	2 to 6	6 (0.094)	8 (0.125)
Downy	<i>Bromus tectorum</i>	2 to 6	6 (0.094)	8 (0.125)
Ripgut	<i>Bromus diandrus</i>	2 to 6	6 (0.094)	8 (0.125)
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	6 (0.094)	8 (0.125)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	6 (0.094)	8 (0.125)
Large	<i>Digitaria sanguinalis</i>	2 to 6**	6 (0.094)	8 (0.125)
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	6 (0.094)	8 (0.125)
Southern	<i>Digitaria ciliaris</i>	2 to 6**	6 (0.094)	8 (0.125)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	6 (0.094)	8 (0.125)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	6 (0.094)	8 (0.125)
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	6 (0.094)	8 (0.125)
Foxtail				
Giant	<i>Setaria feberii</i>	2 to 12	6 (0.094)	8 (0.125)
Green	<i>Setaria viridis</i>	2 to 8	6 (0.094)	8 (0.125)
Yellow	<i>Setaria glauca</i>	2 to 8	6 (0.094)	8 (0.125)
Goosegrass	<i>Eleusine indica</i>	2 to 6**	6 (0.094)	8 (0.125)
Itchgrass	<i>Rottboellia cochinchinensis</i>	2 to 6	6 (0.094)	8 (0.125)
Junglerice	<i>Echinochloa colona</i>	2 to 6	6 (0.094)	8 (0.125)
Lovegrass (Stinkgrass)	<i>Eragrostis ciliaris</i>	2 to 6	6 (0.094)	8 (0.125)
Rabbitsfootgrass	<i>Polygonum monspeliensis</i>	1 to 4	6 (0.094)	8 (0.125)

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GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE <sup>(1)</sup>
Red Rice	<i>Oryza sativa</i>	1 to 3	6 (0.094)	8 (0.125)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	6 (0.094)	8 (0.125)
Italian	<i>Lolium multiflorum</i>	2 to 6	6 (0.094)	8 (0.125)
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	6 (0.094)	8 (0.125)
Shattercane	<i>Sorghum bicolor</i>	6 to 18	6 (0.094)	8 (0.125)
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	6 (0.094)	8 (0.125)
Sprangle top				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	6 (0.094)	8 (0.125)
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	6 (0.094)	8 (0.125)
Mexican	<i>Leptochloa uninervia</i>	2 to 6	6 (0.094)	8 (0.125)
Red	<i>Leptochloa filiformis</i>	2 to 6	6 (0.094)	8 (0.125)
Texas Panicum	<i>Panicum texanum</i>	2 to 6	6 (0.094)	8 (0.125)
Volunteer Cereals <sup>(2)</sup>				
Barley	<i>Hordeum vulgare</i>	2 to 6	6 (0.094)	8 (0.125)
Oats	<i>Avena sativa</i>	2 to 6	6 (0.094)	8 (0.125)
Rye	<i>Secale cereal</i>	2 to 6	6 (0.094)	8 (0.125)
Wheat	<i>Triticum aestivum</i>	2 to 6	6 (0.094)	8 (0.125)
Volunteer Corn <sup>(3)</sup>	<i>Zea mays</i>	4 to 12	4 (0.063)	6 (0.094)
Volunteer Corn <sup>(3)</sup>	<i>Zea mays</i>	12 to 24	6 (0.094)	8 (0.125)
Volunteer Corn (S.R.) <sup>(4)</sup>	<i>Zea mays</i>	4 to 12	8 (0.125) (suppression only)	
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	6 (0.094)	8 (0.125)
Wild Oats	<i>Avena fatua</i>	2 to 6	6 (0.094)	8 (0.125)
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	6 (0.094)	8 (0.125)
Witchgrass	<i>Panicum capillare</i>	2 to 8	6 (0.094)	8 (0.125)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	6 (0.094)	8 (0.125)

\* Generally occurs between 3-leaf stage and tillering.

\*\* Length of lateral growth.

<sup>(1)</sup> Rates higher than 8 fluid ounces (0.125 lb. ai) per acre 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 8 to 16 fluid ounces. (0.125 to 0.25 lb. ai) per acre may be applied.

<sup>(2)</sup> When a cereal grain crop (such as wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum use rate for control is 8 fluid ounces (0.125 lb. ai) per acre.

<sup>(3)</sup> Includes Glyphosate, Glufosinate and IMI-CORN® volunteer corn.

<sup>(4)</sup> Sethoxydim resistant volunteer corn.

**ANNUAL & PERENNIAL GRASS CONTROL IN ESTABLISHED ALFALFA AND MINT (PEPPERMINT TOPS AND SPEARMINT TOPS) WITH AVATAR**

GRASS SPECIES	WEED STAGE	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE
Annual & Perennial Grasses Listed in Grass Table	See Table	10 (0.156)	16 (0.25)

**Mowing:** The best control of annual grasses can be achieved by applying AVATAR before grass weeds are mowed. Once grass is mowed it becomes tougher to control, as much of the available leaf surface has been removed. In areas without a killing frost, some annuals can over-winter after having been mowed multiple times. These grasses form large crowns and may contain many viable buds. These grasses, even though they may be an annual grass, may require repeated applications of this product for partial or complete control.

**Irrigated Alfalfa and Mint (Peppermint tops and Spearmint tops):** Irrigation practices can be very critical to the successful use of AVATAR in established alfalfa and mint (peppermint tops and spearmint tops) and may be necessary to initiate active growth of the weeds prior to application. Generally, applications 2 to 4 days after irrigation are most effective. Irrigation made shortly after application (2 days) can be effective, but more consistent grass control occurs when the irrigation is made before the application.

**Aerial Application:** Apply AVATAR in a minimum of 10 GPA in established alfalfa and mint (peppermint tops and spearmint tops) when applying by air.

**Annual Grass Control:** Apply AVATAR at the grass sizes indicated in the Annual Grass Table and rates indicated. If a grass has been cut, apply product after active growth has resumed and regrowth has reached the minimum height and before it reaches the maximum height indicated. Apply before the alfalfa/mint (peppermint tops and spearmint tops) canopy covers the grasses and interferes with the spray coverage. 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 region to region. Also some annuals germinate over an extended period of time, and because control of small grasses is desired, applications after each weed flush may be required. As a general rule spray spring- and summer-germinating grasses as early in the year as possible, after initial green-up. Spray fall-germinating weeds in the fall soon after they begin growing but before any damage is done due to frost. Late fall applications may be less effective due to environmental conditions, such as frost, slower plant growth, or the onset of flowering.

**Perennial Grass Control:** AVATAR effectively controls perennial grasses including Bermudagrass, Johnsongrass, quackgrass, wirestem mulch, tall fescue, foxtail barley and orchardgrass. Due in part to lack of tillage, perennial grasses are more difficult to control in a perennial crop including established alfalfa or mint. A program of repeated applications is usually necessary for best results. The best way to control perennial grasses is to do so in the year of stand establishment before rhizomes and stolons become large and difficult to kill.

Use the high rate under heavy grass pressure and/or when grasses are at or near maximum height.

Always add a crop oil concentrate at 1 quart by acre by ground or 1% v/v (but not less than 1 pint per acre) to the finished spray volume by air.

**ANNUAL BLUEGRASS CONTROL WITH AVATAR**

GRASS SPECIES	WEED STAGE	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE
Annual Bluegrass ( <i>Poa annua</i> )	to 4-leaf	6* (0.094)	16 (0.25)

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 quart per acre by ground to the finished spray volume.

\*Use a minimum of 10 fluid ounces (0.156 lb ai) per acre to control annual bluegrass in seedling and established alfalfa and mint (peppermint tops and spearmint tops).

**DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES IN CANOLA, DRY SHELLED BEAN & PEA (INCLUDING SOYBEAN), EDIBLE PODDED LEGUME VEGETABLES, FLAX, MUSTARD SEED, SUCCULENT BEAN & PEA AND SUGAR BEET  
(REDUCED RATE DIRECTIONS NOT FOR USE IN CALIFORNIA)**

- Apply only to actively growing grasses at specified weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment.
- Regrowth by tillering may occur if application is made when plants are stressed by lack of moisture, excessive moisture, low or high temperatures and/or under very low humidity.

**Restrictions**

- **DO NOT** apply more than the rate listed below per application.
- **DO NOT** exceed the maximum yearly rate listed in **Table 1**.
- **DO NOT** exceed the maximum number of yearly applications listed in **Table 1**.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT (inches)	RATE FL. OZ. (lb ai) / ACRE <sup>(1)</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 4	4 (0.063)
Broadleaf Signalgrass	<i>Brachiaria platyphlla</i>	1 to 4	5 (0.078)
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1 to 3*	4 (0.063)
Large	<i>Digitaria sanguinalis</i>	1 to 4*	5 (0.078)
Smooth	<i>Digitaria ischaemum</i>	1 to 3*	4 (0.063)
Smooth	<i>Digitaria ischaemum</i>	1 to 4*	5 (0.078)
Southern	<i>Digitaria ciliaris</i>	1 to 4*	5 (0.078)
Fall Panicum	<i>Panicum dichotomiflorum</i>	1 to 4	4 (0.063)
Foxtail			
Giant	<i>Setaria faberi</i>	1 to 4	4 (0.063)
Green	<i>Setaria viridis</i>	1 to 4	4 (0.063)
Millet	<i>Setaria italic</i>	1 to 4	5 (0.078)
Yellow	<i>Setaria glauca</i>	1 to 4	4 (0.063)
Seedling Johnsongrass	<i>Sorghum halepense</i>	1 to 6	5 (0.078)
Shattercane	<i>Sorghum bicolor</i>	4 to 10	4 (0.063)
Texas Panicum	<i>Panicum texanum</i>	1 to 4	5 (0.078)
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	5 (0.078)
Oats	<i>Avena sativa</i>	1 to 4	5 (0.078)
Wheat	<i>Triticum aestivum</i>	1 to 4	5 (0.078)
Volunteer Corn**	<i>Zea mays</i>	4 to 12	4 (0.063)
Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 6	4 (0.063)
Wild Oats	<i>Avena fatua</i>	1 to 4	5 (0.078)

\* Length of lateral growth

\*\* Not S.R. Corn

<sup>(1)</sup> Always add a crop oil concentrate at 1 quart per acre by ground application to the finished spray volume.

#### PERENNIAL GRASSES

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

#### Restrictions

- **DO NOT** exceed the maximum per application rate listed in **Table 1**.
- **DO NOT** exceed the maximum yearly rate listed in **Table 1**.
- **DO NOT** exceed the maximum number of yearly applications listed in **Table 1**.

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE
Bermudagrass ( <i>Cynodon dactylon</i> )			
First Application	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8 (0.125)	16 (0.25)

continued next page



GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE
<b>Fescue, Tall (<i>Festuca arundinacea</i>)</b>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 8	8 (0.125)	16 (0.25)
<b>Foxtail Barley (<i>Hordeum jubatum</i>)</b>			
First Application	2 to 6	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	2 to 6	8 (0.125)	16 (0.25)
<b>Quackgrass* (<i>Elytrigia repens</i>)</b>			
First Application	4 to 12	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 12	8 (0.125)	16 (0.25)
<b>Rhizome Johnsongrass (<i>Sorghum halepense</i>)</b>			
First Application	12 to 24	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	6 to 18	6 (0.094)	8 (0.125)
<b>Wirestem Muhly (<i>Muhlenbergia frondosa</i>)</b>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 8	8 (0.125)	16 (0.25)
<b>Perennial Bluegrass*</b>			
<b>Roughstalk (<i>Poa trivialis</i>)</b>			
<b>Kentucky (<i>Poa prantensis</i>)</b>			
First Application	2 to 4	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	2 to 4	8 (0.125)	16 (0.25)
<b>Bentgrass* (<i>Agrostis</i> spp.)</b>			
First Application	2 to 4	-	16 (0.25)
Repeat Application(s) (if regrowth occurs)	2 to 4	-	16 (0.25)

\*Control of quackgrass, perennial bluegrass and bentgrass with this product may be enhanced by adding Ammonium Sulfate (AMS) at 2.5 to 4.0 pounds per acre.

#### TANK MIXES INFORMATION

The labels for each of the herbicides specified for tank mixing with **AVATAR** are unique to the characteristics of those products and contain restrictions and limitations that may be more restrictive than the **AVATAR** label in certain considerations. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Those concerns may include, but are not limited to:

1. Geographic restrictions – all products are not registered for use in all areas and rates may vary from one region of labeled use to another;
2. Crop rotation restrictions;
3. Applicator certification requirements;
4. Worker safety rules (e.g. protective clothing, reentry time, posting);
5. Soil type or soil characteristics (e.g. pH, OM);
6. Maximum dosage or number of applications per year;
7. Rain free period required; or
8. Application timing (e.g. pre-harvest interval)
9. **DO NOT** exceed the total yearly application rates.

## TANK MIX APPLICATION OF AVATAR AND BROADLEAF HERBICIDES FOR CONTROL OF GRASSES AND BROADLEAF WEEDS

- Apply only to actively growing grass and broadleaf weeds at specified height or growth stage listed on each label.
- Apply when the first grass or broadleaf weed species in a mixed population reaches the specified height or growth stage for treatment.
- Apply under favorable soil moisture and humidity that exist a few days after rainfall or within seven days after irrigation.
- Always add the appropriate adjuvant to the spray mix at the rate specified for each specific tank mix combination.
- Tank mix applications may sometimes result in reduced grass control and possible increases in crop injury as compared to either product used alone. If regrowth occurs, or an additional flush of new grass emerges, make a second application of AVATAR, as specified in the respective size and rate tables.
- **DO NOT** tank mix AVATAR when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.

### MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
  2. While agitating, add the correct amount of AVATAR. Agitation must create a rippling or rolling action on the water surface.
  3. If tank mixing AVATAR with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates, and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
  4. Add any required adjuvants (crop oil concentrate, non-ionic surfactant and/or nitrogen solution).
  5. Fill spray tank to desired level with water. **Continue agitation until all spray solution has been applied.**
- Failure to agitate the spray solution may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

### INFORMATION ON ANTAGONISM

Tank mixes of AVATAR with postemergence broadleaf herbicides have shown some reduction or failure to control certain grass species which would have otherwise been controlled when AVATAR is applied alone. Activity of the postemergence broadleaf herbicide in the tank mix is not affected.

### ALFALFA

**Table 2. AVATAR TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA**  
(Refer to tables above for specific grasses and growth stages)

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
	AVATAR + 2,4-DB <sup>(4)</sup>	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See 2,4-DB label for application rate.	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See 2,4-DB label for application rate.	1%
AVATAR + Bromoxynil <sup>(6,7)</sup>	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See Bromoxynil label for application rate.	-	0.5%	0.5%
AVATAR + Imazethapyr <sup>(8)</sup>	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See Imazethapyr label for application rate.	-	1%	1%

<sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>(2)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

<sup>(4)</sup> This product plus 2,4-DB may increase the severity of crop injury when tank mixed. Alfalfa plants will generally outgrow this temporary crop injury within a few weeks.

<sup>(5)</sup> Before using this tank mix, read and understand the Imazethapyr labels for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa. **DO NOT** feed, graze, or harvest alfalfa for 30 days following an application of Imazethapyr to alfalfa.

- <sup>(6)</sup> In the states of Washington, Oregon, Idaho, Montana, Wyoming, Colorado, Utah, Nevada and the western halves of North Dakota, South Dakota, Nebraska, and Kansas: The *AVATAR* plus Bromoxynil tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliolate leaf stage. This product plus Bromoxynil applications made when temperatures are expected to exceed 80°F at (and 3 days following) application can result in unacceptable crop injury. In the states not listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliolate leaves. When the alfalfa stand is uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliolate or smaller stage of growth. This product plus Bromoxynil applications made when temperatures are expected to exceed 70°F at (and 3 days following) application can result in unacceptable crop injury. Crop leaf burn can occur following *AVATAR* plus Bromoxynil application. Warm, humid conditions may enhance leaf burn. New crop growth will not be affected.

- <sup>(7)</sup> **DO NOT** apply when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

**CANOLA (Except Flax)**  
**Rapeseed Subgroup 20A (except flax seed, mustard seed and sesame seed)**

**Table 3. REDUCED RATE AVATAR TANK MIXES WITH BROADLEAF HERBICIDES FOR CANOLA**  
 (Refer to the tables above for specific grasses and growth stages.)

PRODUCT	APPLICATION RATES/ACRE		AMMONIUM SULFATE	
	ANNUAL GRASSES <sup>(1)</sup>	PERENNIAL GRASSES	GROUND	AIR
<i>AVATAR</i> <sup>(2)</sup> + Glufosinate-Ammonium <sup>(3)</sup>	4 to 5 fl. oz. (0.063 - 0.075 lb ai) + See Glufosinate-ammonium label for application rate.		3.0 lbs.	3.0 lbs.

- <sup>(1)</sup> Annual grasses and sizes controlled with these tank mixtures are those that are identified in the DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES table.

- <sup>(2)</sup> **DO NOT** apply this product tank mix during or after bolting or flowering or crop injury may occur.

- <sup>(3)</sup> For use only on glufosinate-resistant canola.

**COTTON**

**Table 4. AVATAR TANK MIXED WITH LACTOFEN AND MSMA APPLIED POST DIRECTED TO COTTON**

PRODUCT <sup>(1)</sup>	APPLICATION RATES/ACRE <sup>(2)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup>	COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	
<i>AVATAR</i> <sup>(4)</sup> + Lactofen + MSMA	6 to 8 fl. oz. (0.094 - 0.125 lb ai)	8 to 16 fl. oz. (0.125 - 0.25 lb ai)	1%	Reduce broadcast rate in proportion to the band area actually treated.
	See Lactofen label for rates to control broadleaf weeds and height limitations for cotton. Refer to the <i>AVATAR</i> label for weed height and species controlled.			
	See MSMA label for rates to control broadleaf weeds and height limitations for cotton. Refer to the <i>AVATAR</i> label for weed height and species controlled.			

- <sup>(1)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

- <sup>(2)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

- <sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

- <sup>(4)</sup> If at the time of application, grass height is so tall that post-directed applications cannot get good coverage over the top of the grassy weeds, then poor control may result and a second (non-post directed) application of this product may be necessary.

**Table 5. AVATAR TANK MIXED WITH BROMOXNYL TO CONTROL EMERGED WEEDS IN BXN COTTON AS A BROADCAST APPLICATION**

PRODUCT <sup>(1)</sup>	APPLICATION RATES/ACRE <sup>(2)</sup>		CROP OIL CONCENTRATE PER ACRE <sup>(3)</sup>	COMMENTS <sup>(7)</sup>
	ANNUAL GRASSES			
AVATAR + Bromoxnyl <sup>(4,5,6)</sup>	8 to 16 fl. oz. (0.125 - 0.25 lb ai) See Bromoxnyl label for rates to control broadleaf weeds and height limitations for cotton		1 qt.	See charts for grasses controlled.

- <sup>(1)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage.  
<sup>(2)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product at the specified rate with the appropriate amount of crop oil concentrate in a non-Bromoxnyl tank mix.  
<sup>(3)</sup> Always add a crop oil concentrate at 1 qt./A by ground in the finished spray solution.  
<sup>(4)</sup> Applications of Bromoxnyl can be made only to cotton that has been genetically modified for crop tolerance to postemergence over-the-top application of bromoxnyl.  
<sup>(5)</sup> **DO NOT** apply this product plus Bromoxnyl tank mix within 75 days of harvest.  
<sup>(6)</sup> **DO NOT** exceed 2 applications of Bromoxnyl before cotton is 12 inches tall and one application after 12 inches tall.  
<sup>(7)</sup> Use a minimum of 10 gals. of spray solution per acre.

**Table 6. AVATAR TANK MIXED WITH GLYPHOSATE TO CONTROL EMERGED GRASSES IN COTTON AS A BROADCAST APPLICATION**

PRODUCT	APPLICATION RATES/ACRE <sup>(1)</sup>		ADJUVANT		COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation <b>with</b> built in adjuvant	Glyphosate formulation <b>without</b> built in adjuvant	
AVATAR + Glyphosate	6 to 8 fl. oz. (0.094 - 0.125 lb ai)	8 to 16 fl. oz. (0.125 - 0.25 lb ai)	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	See charts for grasses controlled. Use a minimum of 10 gals of spray solution per acre.
	See glyphosate label for rates to control broadleaf weeds and height limitations for cotton.				

- <sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product at the specified rate with the appropriate amount of crop oil concentrate.

**BEANS (DRY AND SUCCULENT SHELLED)  
 Succulent Shelled Pea and Bean Subgroup 6B  
 Dried Shelled Pea and Bean (except Soybean 6C)**

**Table 7. AVATAR TANK MIXES WITH BROADLEAF HERBICIDES FOR DRY SHELLED AND SUCCULENT BEANS (Refer to the tables above for specific grasses and growth stages.)**

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
			8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Bentazon label for application rate.	10 to 16 fl. oz. (0.15 - 0.25 lb ai) + See Bentazon label for application rate.

- <sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.  
<sup>(2)</sup> Broadleaf weed control may be reduced when grass populations are tall enough or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.  
<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

FLAX

**Table 8. REDUCED RATE AVATAR TANK MIXED WITH BROADLEAF HERBICIDES FOR FLAX**  
(Refer to the tables above for specific grasses and growth stages)

PRODUCT	APPLICATION RATES/ACRE		CROP OIL CONCENTRATE	
	ANNUAL GRASSES <sup>(1)</sup>	PERENNIAL GRASSES	GROUND	AIR
AVATAR + Bromoxynil <sup>(2,3)</sup>	4 to 5 fl. oz. (0.063 - 0.075 lb ai) + See Bromoxynil label for application rate.	-	1 pt.	1 pt.
AVATAR + Bromoxynil + MCPA <sup>(2,3)</sup>	4 to 5 fl. oz. (0.063 - 0.075 lb ai) + See Bromoxynil + MCPA label for application rate.	-	1 pt.	1 pt.
AVATAR + MCPA <sup>(2,3)</sup>	4 to 5 fl. oz. (0.063 - 0.075 lb ai) + See MCPA label for application rate.	-	1 pt.	1 pt.

<sup>(1)</sup> Annual grasses and sizes controlled with these tank mixtures are those that are identified in the DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES table.

<sup>(2)</sup> **Restriction: DO NOT** apply this product tank mix during or after the bud stage or to ornamental flax or crop injury may occur.

<sup>(3)</sup> **Restriction: DO NOT** apply tank mixes if temperatures are expected to exceed 85°F at (or 3 days following) application or crop injury may occur.

SOYBEAN

**Table 9. AVATAR TANK MIXES <sup>(3)</sup> TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEAN**

PRODUCT	PRODUCT RATE/ACRE <sup>(1)</sup>	GRASS HEIGHT (inches)	CROP OIL CONCENTRATE /ACRE <sup>(2)</sup>	28%N OR 32%N QTS/A OR 2.5 TO 4.0 LBS. AMS
AVATAR + 2,4-D ester* <sup>(3)</sup>	3 fl. oz. (0.023 lb ai)	Foxtail 1 to 3 Fall Panicum 1 to 3	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	4 fl. oz. (0.063 lb ai)	Foxtail 1 to 4 Fall Panicum 1 to 4	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + Refer to 2,4-D ester label for use rate.	(See Grass Chart for grasses claimed.)	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS

\* 2,4-D ester must not be used where drift sensitive crops may be grown.

<sup>(1)</sup> If regrowth occurs or an additional flush of new grass emerges, make a second application of this product according to the appropriate size and rate directions.

<sup>(2)</sup> Always use a crop oil concentrate at the listed rate in the finished spray volume.

<sup>(3)</sup> The following products can be tank mixed with this product plus 2,4-D ester: Chlorimuron Ethyl + Sulfentrazone, Flumioxazin, Metolachlor/S-metolachlor, Metribuzin, Metolachlor/S-metolachlor + Metribuzin, Pendimethalin and Sulfentrazone.

**Table 10. AVATAR TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN**  
(Refer to the tables above for specific grasses and growth stages.)

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
AVATAR + Acifluorfen	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Acifluorfen label for application rate.	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Acifluorfen label for application rate.	0.5% to 1%	1%
AVATAR Bentazon	8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Bentazon label for application rate.	10 to 16 fl. oz. (0.15 - 0.25 lb ai) + See Bentazon label for application rate.	1%	1%
AVATAR <sup>(5)</sup> + Bentazon + Acifluorfen	8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Bentazon and Acifluorfen labels for application rate.	-	0.5%	1%
AVATAR + Chlorimuron Ethyl	8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Chlorimuron label for application rate.	10 to 16 fl. oz. (0.15 - 0.25 lb ai) + See Chlorimuron label for application rate.	1%	1%
AVATAR <sup>(5)</sup> + Chlorimuron ethyl + Thifensulfuron-methyl	6 to 8 fl. oz. <sup>(7)</sup> (0.094 - 0.125 lb ai) + See Chlorimuron and Thifensulfuron labels for application rate.	-	1 qt.	-
AVATAR <sup>(5)</sup> + Cloransulam-methyl	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Cloransulam label for application rate.	8 to 16 fl. oz. (0.125 - 0.25 lb ai) + See Cloransulam label for application rate.	1%	-
AVATAR <sup>(5)</sup> + Cloransulam-methyl + Flumetsulam	8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Cloransulam and Flumetsulam labels for application rate.	-	1%	-
AVATAR + Cloransulam-methyl + Fomesafen <sup>(5)</sup>	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Cloransulam and Fomesafen labels for application rate.	8 to 16 fl. oz. (0.125 - 0.25 lb ai) + See Cloransulam and Fomesafen labels for application rate.	1%	-
AVATAR <sup>(5)</sup> + Flumiclorac	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Flumiclorac label for application rate.	-	1 qt.	-
AVATAR <sup>(5)</sup> + Flumiclorac + Bentazon	8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Flumiclorac and Bentazon labels for application rate.	-	1%	1%

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PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
	AVATAR <sup>(5)</sup> + Flumiclorac + Chlorimuron Ethyl	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Flumiclorac and Chlorimuron labels for application rate.	-	1%
AVATAR <sup>(5)</sup> + Flumiclorac + Imazethapyr	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Flumiclorac and Imazethapyr labels for application rate.	-	1%	1%
AVATAR + Fomesafen <sup>(6)</sup>	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + Refer to the Fomesafen label for specific application rates.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + Refer to the Fomesafen label for specific application rates.	1%	1%
AVATAR + Glyphosate (For use on glyphosate-resistant soybean only)	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Glyphosate label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Glyphosate label for application rate.	0.5 to 1% <sup>(4)</sup>	1% <sup>(4)</sup>
AVATAR <sup>(5)</sup> + Imazamox	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Imazamox label for application rate.	-	1%	-
AVATAR <sup>(4)</sup> + Imazethapyr	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Imazethapyr label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Imazethapyr label for application rate.	1%	1%
AVATAR + Lactofen	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Lactofen label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Lactofen label for application rate.	0.5 to 1%	1%
AVATAR <sup>(5)</sup> + Lactofen + Bentazon	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Lactofen and Bentazon labels for application rate.	-	0.5%	1%
AVATAR <sup>(5)</sup> + Lactofen + Chlorimuron Ethyl	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Lactofen and Chlorimuron labels for application rate.	-	0.5%	1%

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PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
AVATAR <sup>(5)</sup> + Lactofen + Chlorimuron ethyl + Thifensulfuron-methyl	6 to 8 fl. oz. <sup>(7)</sup> (0.094 - 0.125 lb ai) + See Lactofen, Chlorimuron and Thifensulfuron labels for application rate.	-	1 pt.	-
AVATAR <sup>(5)</sup> + Lactofen + Cloransulam-methyl	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Lactofen and Cloransulam labels for application rate.	8 to 16 fl. oz. (0.125 - 0.25 lb ai) + See Lactofen and Cloransulam labels for application rate.	1%	-
AVATAR <sup>(5)</sup> + Lactofen + Flumiclorac	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Lactofen and Flumiclorac labels for application rate.	-	0.5%	1%
AVATAR <sup>(5)</sup> + Lactofen + Imazamox	6 to 8 fl. oz. (0.094 - 0.125 lb ai) + See Lactofen and Imazamox labels for application rate.	-	1%	-
AVATAR <sup>(5)</sup> + Lactofen + Imazethapyr	8 to 10 fl. oz. (0.125 - 0.15 lb ai) + See Lactofen and Imazethapyr labels for application rate.	-	0.5%	1%

<sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>(2)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

<sup>(4)</sup> The addition of 2.5 lb. of ammonium sulfate is required when this product is tank mixed with glyphosate. If the glyphosate formulation has a stand alone built in adjuvant, add 0.125% v/v non-ionic surfactant in place of crop oil concentrate. If the glyphosate formulation does not have a built in adjuvant, add 0.5 to 1% crop oil concentrate for ground application and 1% v/v for aerial application.

<sup>(5)</sup> The addition of 1 to 2 quarts per acre of liquid fertilizer (10-34-0, 28%N, or 32%N) is advised when this product is tank mixed with Flumetsulam + Cloransulam-methyl, Flumiclorac, Imazethapyr, Lactofen + Chlorimuron Ethyl, Lactofen + Bentazon, Lactofen + Imazethapyr, Lactofen + Cloransulam-methyl, Lactofen + Chlorimuron ethyl + Thifensulfuron-methyl and Lactofen + Imazamox. An equivalent amount (2.5 to 4.0 pounds per acre) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.

<sup>(6)</sup> Refer to Fomesafen label for geographic and rotational restrictions.

<sup>(7)</sup> Annual grasses and sizes controlled with these tank mixes are those that are identified in the DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES table.



**Table 11. REDUCED RATE AVATAR TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (Refer to table for reduced rate use in canola, dry shelled bean & pea, edible podded legume vegetables, flax, mustard seed, soybean, succulent bean & pea and sugar beet for small annual grasses for specific grasses and growth stages)**

PRODUCT	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3,4)</sup> (V/V)	
	ANNUAL GRASSES <sup>(2)</sup>	PERENNIAL GRASSES	GROUND	AIR
AVATAR + Cloransulam-methyl	4 to 8 fl. oz. (0.063 – 0.125 lb ai) + See Cloransulam label for application rate.	-	1%	1%
AVATAR + Imazethapyr	4 to 6 fl. oz. (0.063 – 0.094 lb ai) + See Imazethapyr label for application rate.	-	1%	1%

<sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>(2)</sup> Annual grasses and sizes controlled with these tank mixtures are those that are identified in the DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES table.

<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

<sup>(4)</sup> The addition of 1 to 2 quarts per acre of liquid fertilizer (10-34-0, 28%N, or 32%N) is required when this product is tank mixed at reduced rates. An equivalent amount (2.5 to 4.0 pounds per acre) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.

**Table 12. AVATAR TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT (INCLUDING PERENNIAL) - (Refer to the tables above for specific grasses and growth stages.)**

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES <sup>(2)</sup>	PERENNIAL GRASSES	GROUND	AIR
AVATAR + Acifluorfen	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Acifluorfen label for application rate.	-	1%	1%
AVATAR + Bentazon	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Bentazon label for application rate.	-	1%	1%
AVATAR + Bentazon + Acifluorfen	8 to 10 fl. oz. (0.125 – 0.15 lb ai) + See Bentazon and Acifluorfen labels for application rate.	-	1%	1%

<sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>(2)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT (INCLUDING PERENNIAL) WITH AVATAR			
GRASS SPECIES	WEED STAGE	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts "ANNUAL GRASSES" & "PERENNIAL GRASSES"	Up to and including grasses in the seed head stage.	16 (0.25)	32 (0.50)
<b>DO NOT</b> apply as part of a tank mix when apply AVATAR for grass suppression. Add a crop oil concentrate at 1 quart per acre by ground to the finished spray volume.			

**SUGAR BEET**

**Table 13. AVATAR TANK MIXED WITH CLOPYRALID APPLIED TO SUGAR BEET**  
(Refer to the tables above for specific grasses and growth stages)

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
AVATAR + Clopyralid	6 to 8 fl. oz. (0.094 – 0.125 lb ai)	8 to 16 fl. oz. (0.125 – 0.25 lb ai)	1%	1%
See Clopyralid label for rates.				

<sup>(1)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>(2)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

**Table 14. AVATAR TANK MIXED WITH DESMEDIPHAM APPLIED TO SUGAR BEET**

PRODUCT <sup>(1)</sup>	WEEDS CONTROLLED		WEED HEIGHT (inches)	APPLICATION RATE/ACRE <sup>(2)</sup>
	COMMON NAME	SCIENTIFIC NAME		
AVATAR <sup>(3)</sup> + Desmedipham	Barnyardgrass Foxtail Foxtail Millet Wild Oat Wild Proso Millet	<i>Echinochloa crus-galli</i> <i>Setaria</i> spp. <i>Setaria italic</i> <i>Avena fatua</i> <i>Panicum miliaceum</i>	1 to 3 1 to 3 1 to 3 1 to 3 1 to 3	8 fl. oz. (0.125 lb ai)
See Desmedipham label for rates to control broadleaf weeds. <b>No additives are required in the tank mix.</b>				

<sup>(1)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

<sup>(2)</sup> **DO NOT** use crop oil concentrate. No additives are required in the tank mix. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>(3)</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product at full label rate with appropriate rate of crop oil concentrate.

**Table 15. AVATAR PLUS DESMEDIPHAM TANK MIX FOR THREE SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)**

PRODUCT	APPLICATION RATES/ACRE <sup>(1)</sup>		METHYLATED SEED OIL <sup>(2)</sup> (V/V)	
	ANNUAL GRASSES	GRASSES CONTROLLED (inches)	GROUND	AIR
AVATAR + Desmedipham	2 to 3 fl. oz. (0.03 – 0.047 lb ai) + See Desmedipham label for application rate.	Green Foxtail (1-2) Yellow Foxtail (1-2) Barnyardgrass (1-2) Wild Oat (1-2) Volunteer Cereals (1-2)	1.5%	1.5%

<sup>(1)</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. **DO NOT** tank mix in these situations.

<sup>(2)</sup> Always use a methylated seed oil at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

<sup>(3)</sup> Use 8 fluid ounce (0.125 lb ai) per acre rate when sugar beet are in the cotyledon to 4 leaf stage. Rate can be increased up to 12 fluid ounces (0.188 lb ai) per acre when the smallest sugar beet plants in the field are in the 4 true leaf stage or larger.

**Directions for Use for Micro-Rate Applications to Sugar Beet Application Information**

Multiple micro-rate applications of AVATAR in tank mixtures with reduced rates of Desmedipham and methylated seed oils may be applied by air or ground equipment to sugar beet to control early germinating annual grasses listed above. Refer to the Desmedipham label for application rates. Favorable climatic conditions (good conditions for plant growth and development) are essential for adequate weed control. All use limitations and restrictions on the Desmedipham label must be followed.

**Directions for Using Micro-Rate Multiple Applications of AVATAR Tank Mixes**

Apply *AVATAR* in broadcast applications only at a rate of 2 to 3 fluid ounce (0.03 – 0.047 lb ai) per acre in tank mixture with Desmedipham following the directions for use on the tank mix partner label. Refer to Desmedipham label for use rates. If weed control is not adequate due to climatic conditions, spray coverage or other factors, return to conventional application rates of *AVATAR* (6 to 8 fluid ounces (0.094 – 0.125 lb ai) per acre) and add label rates of Desmedipham. When using conventional rates of Desmedipham in tank mixtures with *AVATAR*, a spray adjuvant is not required.

**Use Precautions for Micro-Rate Applications: (See AVATAR and Desmedipham label for further use precautions.)**

Not all weeds will be adequately controlled, even with favorable climatic conditions. Conventional rates of *AVATAR* Desmedipham and/or hand labor may be required if multiple micro-rate applications do not adequately control weeds. Plugging of spray nozzles may be encountered due to the potential for formation of a precipitate in the spray solution that is often associated with micro-rate applications. To the extent consistent with applicable law, Innvictis Crop Care, LLC will not be responsible for any nozzle plugging that may occur with the use of multiple micro-rate applications.

**Restriction**

- **DO NOT** use methylated seed oil.

**GROUND APPLICATION**

Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Use a minimum of 10 gals. and a maximum of 20 gals. of spray solution per acre. Spray pressures must reflect a minimum of 30 psi and a maximum of 60 psi at the nozzle. **DO NOT** use flood nozzles.

**AERIAL APPLICATION**

Use of sufficient spray volumes is essential to ensure complete coverage. Use a minimum of 5 gallons and a maximum of 15 gallons of spray solution per acre.

**Table 16. TANK MIX APPLICATION OF AVATAR AND FUNGICIDES FOR CONTROL OF GRASS WEEDS AND DISEASES IN SUGAR BEET**

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(3)</sup> (V/V)
	ANNUAL GRASSES	PERENNIAL GRASSES	
<i>AVATAR</i> + Tetraconazole	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Tetraconazole label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Tetraconazole label for application rate.	1%

<sup>(1)</sup> If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix fungicide), according to the appropriate size and rate directions.

<sup>(2)</sup> Refer to *AVATAR* and fungicide label for rates and weeds and diseases controlled.

<sup>(3)</sup> Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

**Table 17. TANK MIX APPLICATION OF AVATAR AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, MINT (PEPPERMINT TOPS AND SPEARMINT TOPS), PEANUT (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER**

PRODUCT <sup>(2)</sup>	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE (V/V) <sup>(3)</sup>	CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa <sup>(4)</sup>	Cotton	Mint (Peppermint tops and Spearmint tops) <sup>(4,5)</sup>	Peanut	Soybean	Sunflower
AVATAR + Acephate	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Acephate label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Acephate label for application rate.	1%		X	X	X	X	
AVATAR + Beta-cyfluthrin	10 to 16 fl. oz. <sup>(6)</sup> (0.15 – 0.25 lb ai) + See Beta-cyfluthrin label for application rate.	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See Beta-cyfluthrin label for application rate.	1%	X					
AVATAR + Chlorpyrifos	10 to 16 fl. oz. <sup>(6)</sup> (0.15 – 0.25 lb ai) + See Chlorpyrifos label for application rate.	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See Chlorpyrifos label for application rate.	1 to 2 pt. <sup>(7)</sup>	X					
AVATAR + Dimethoate	10 to 16 fl. oz. <sup>(6)</sup> (0.15 – 0.25 lb ai) + See Dimethoate label for application rate.	10 to 16 fl. oz. <sup>(6)</sup> (0.15 – 0.25 lb ai) + See Dimethoate label for application rate.	1%	X					
AVATAR + Esfenvalerate	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Esfenvalerate label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Esfenvalerate label for application rate.	1%						X
AVATAR + Fenpropathrin	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Fenpropathrin label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Fenpropathrin label for application rate.	1%		X		X		
AVATAR + Lambda-cyhalothrin	6 to 8 fl. oz. (0.094 – 0.125 lb ai) + See Lambda-cyhalothrin label for application rate.	8 to 16 fl. oz. (0.125 – 0.25 lb ai) + See Lambda-cyhalothrin label for application rate.	1%						X
AVATAR + Lambda-cyhalothrin	10 to 16 fl. oz. <sup>(6)</sup> (0.15 – 0.25 lb ai) + See Lambda-cyhalothrin label for application rate.	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See Lambda-cyhalothrin label for application rate.	1%	X					
AVATAR + Permethrin	10 to 16 fl. oz. <sup>(6)</sup> (0.15 – 0.25 lb ai) + See Permethrin label for application rate.	10 to 16 fl. oz. (0.15 – 0.25 lb ai) + See Permethrin label for application rate.	1%	X					

- (1) If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix fungicide), according to the appropriate size and rate directions.
- (2) Refer to *AVATAR* and fungicide label for rates and weeds and diseases controlled.
- (3) Always use a crop oil concentrate at the listed rate (but not less than 1 pint per acre) in the finished spray volume.
- (4) Certain insecticides may cause temporary phytotoxic symptoms on alfalfa and mint (peppermint tops and spearmint tops) foliage. Refer to the insecticide label for further information. It is suggested that prior to using any of these insecticides/herbicide tank mixtures, that a small area of the field be treated first and observations for crop injury be made prior to treating the whole field.
- (5) The rate of this product must be 6 to 8 fluid ounces. (0.094 to 0.125 lb. ai) per acre for annual grass control in baby mint (peppermint tops and spearmint tops), minimum of 8 fluid ounces (0.125 lb. ai) per acre for annual grass control in established mint (peppermint tops and spearmint tops) and 8 to 16 fluid ounces (0.125 to 0.25 lb ai) per acre for perennial grass control. Crop oil concentrate must be added at the rate of 1.0 to 2.0 pts./A.
- (6) The *AVATAR* rate must be 6 to 8 fluid ounces (0.094 to 0.125 lb. ai) per acre for annual grass control in seedling alfalfa.
- (7) For the *AVATAR* plus Chlorpyrifos tank mix, reduce the adjuvant rate down to 1.0 pints per acre when the Chlorpyrifos rate is 0.5 lb. ai per acre or higher.

**Table 18. GLYPHOSATE-RESISTANT VOLUNTEER CORN CONTROL IN GLYPHOSATE-RESISTANT SOYBEAN WITH *AVATAR* HERBICIDE TANK MIX**

Glyphosate-Resistant Volunteer Corn Height (Inches)	<i>AVATAR</i> Rate fl. oz./A	Glyphosate <sup>(1)</sup> rate for formulations <b>with</b> built-in adjuvant	Adjuvant
<12	4 (0.0625 lb ai)	Refer to glyphosate label for use rate.	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals./of carrier
12 to 18	5 (0.078 lb ai)		
18 to 24	6 (0.094 lb ai)		

Glyphosate-Resistant Volunteer Corn Height (Inches)	<i>AVATAR</i> Rate fl. oz./A	Glyphosate <sup>(1)</sup> rate for formulations <b>without</b> built-in adjuvant	Adjuvant
<12	4 (0.0625 lb ai)	Refer to glyphosate label for use rate.	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier
12 to 18	5 (0.078 lb ai)		
18 to 24	6 (0.094 lb ai)		

(1) Glyphosate formulation must be labeled for use on glyphosate-resistant soybean.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

- Apply only to actively growing grass and broadleaf weeds at specified height or growth stage listed on each label.
- Apply under favorable soil moisture and humidity which exist a few days after rainfall or within seven days after irrigation.
- Tank mix applications may sometimes result in reduced grass control. If regrowth occurs, or an additional flush of new grass emerges, make a second application of *AVATAR*, as specified in the respective size and rate tables.
- **DO NOT** tank mix *AVATAR* when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.
- This tank mix may be applied postemergence to glyphosate-resistant soybean up through the full flowering stage. **DO NOT** apply less than 60 days before harvest.
- Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants and trees, other than soybean with the glyphosate-resistant gene as severe injury or destruction will result.
- **DO NOT** allow the *AVATAR* plus Glyphosate to mist, drip, drift or splash onto desirable vegetation as minute quantities of the tank mix can cause severe damage or destruction to the crops, plants or other areas on which treatment was not intended. The likelihood of injury occurring from drift of this product is greatest when winds are gusty or in excess of 5 miles per hour. Even under lesser wind velocities, avoid conditions that allow spray drift to occur such as combinations of spray pressure and nozzle type that will result in fine particles (mist) that are likely to drift.

## FALLOW LAND

### DIRECTIONS FOR USE

*AVATAR* may be used to control annual and perennial grasses in land that has been left fallow the previous year and other non-producing agricultural areas. Apply *AVATAR* at 6 to 8 fluid ounces (0.094 – 0.125 lb ai) per acre for annual grasses and 8 to 16 fluid ounces (0.125 – 0.25 lb ai) per acre for perennial grasses. When both grass and broadleaf weeds are the target pest, *AVATAR* may be tank mixed with 2,4-D ester or Dicamba for broad spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 8 fluid ounces per acre *AVATAR* rate.

### Precautions

- Use a minimum spray volume of 5 gallons per acre for aerial applications and 15 gallons per acre for ground applications.
- Apply only to actively growing grasses when the first grass reaches the specified weed height as specified by the Annual and Perennial Grasses section of this label.
- Annual grasses that emerge after the *AVATAR* application will not be controlled, and a second application may be necessary.
- The control of perennial grasses may require more than 1 application in non-tilled areas.

### Restrictions

- **DO NOT** apply more than 8 fluid ounces (0.125 lb ai) per acre per application to Annual Grasses and 16 fluid ounces (0.25 lb ai) per acre per application to Perennial Grasses.
- **DO NOT** apply more than 32 fluid ounces (0.50 lb ai) per acre per year.
- **DO NOT** make more than 5 applications at the 6 fluid ounce (0.094 lb ai) use rate for Annual Grasses and **DO NOT** make more than 4 applications at the 8 fluid ounce (0.125 lb ai) rate for Perennial Grasses.
- For repeat applications make on a minimum of a 14 day interval.
- **DO NOT** plant any crop for 30 days after application unless clethodim is registered for use in that crop.
- **DO NOT** apply to grasses that have tillered, formed seedheads or exceeded specified growth stage.
- **DO NOT** use flood jet nozzles.
- **DO NOT** apply to drought stressed grasses.
- **DO NOT** mow area for 2 weeks prior to or after the *AVATAR* application.

Table 19. *AVATAR* IN TANK MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND

PRODUCT	APPLICATION RATES/ACRE <sup>(1)</sup>		CROP OIL CONCENTRATE <sup>(2)</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
<i>AVATAR</i> + 2,4-D ester or Dicamba	6 to 8 fl. oz. (0.094 – 0.125 lb ai)  + See 2,4-D ester or Dicamba label for application rates.	8 to 16 fl. oz. (0.125 – 0.25 lb ai)	1%	1%

<sup>(1)</sup> Refer to *AVATAR* label for weed height and species control. Review Dicamba and 2,4-D labels for crop restrictions, use rates and weeds controlled.

<sup>(2)</sup> Always use a crop oil concentrate or methylated seed oil containing at least 15% emulsifier at the listed rate (but not less than 1 pint per acre) in the finished spray volume.

GRASS SUPPRESSION IN NON-CROP AREAS WITH AVATAR			
GRASS SPECIES	WEED STAGE	RATE FL. OZ. (lb ai) / ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts above.	Up to and including grasses in the seed head stage.	12 (0.19)	16 (0.25)
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			
<b>Restriction</b>			
• <b>DO NOT</b> apply as part of a tank mix when applying this product for grass suppression.			

**Table 20. AVATAR FOR THE CONTROL AND/OR SUPPRESSION OF TALL FESCUE IN NATIVE PRAIRIE WARM-SEASON GRASS RESTORATION PROJECTS**

PRODUCT	PRODUCT RATES	GRASS WEEDS CONTROLLED/SUPPRESSED		WEED STAGES
		Common Name	Scientific Name	
AVATAR	10 to 12 fl. oz./A (0.15 – 0.188 lb ai)	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches tall (40 to 60% green-up)
<b>Adjuvant:</b> This product must be applied with crop oil concentrate at 1 quart per acre, plus a spray grade ammonium sulfate at 2.5 to 4 pounds per acre.				
<b>Mixing Order:</b> Thoroughly mix spray grade ammonium sulfate in water, then add crop oil concentrate.				

**SPECIAL APPLICATION INSTRUCTIONS**

- Burn or mow fields a minimum of 3 weeks prior to application to remove excess crop residue. Apply in the spring, at 40 to 60% tall fescue green-up, prior to emergence of warm-season grasses.
- Apply in a minimum of 15 to 20 gals. of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.
- Apply only to fields that have warm-season grasses established for 2 years.
- Applications of AVATAR to emerged warm-season grasses may cause injury.

**NOTE:** Applications of this product are most effective if applied when average nighttime temperatures are consistently greater than or equal to 47°F.

**Restrictions**

- **DO NOT** graze treated fields or feed treated forage and/or hay to livestock.
- **DO NOT** plant any crop for 30 days after application, unless clethodim is registered for use in that crop.
- **DO NOT** mow area for 2 weeks after the application of this product.
- **DO NOT** apply to warm-season grasses grown for seed.
- **DO NOT** use flood jet nozzles.

**Table 21. AVATAR FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS**

PRODUCT	PRODUCT RATE PER ACRE	SUPPRESSION	APPLICATION TIMING
AVATAR	1.5 to 2 fl. oz. (0.023 -0.03 lb ai)	Tall Fescue Seed-Heads ( <i>Festuca arundinacea</i> )	(50 to 90% Tall Fescue green-up)
<b>Adjuvant:</b> This product must be applied with crop oil concentrate at 1 quart per acre plus a spray grade ammonium sulfate at 2.5 to 4 pounds per acre.			
<b>Mixing Order:</b> Thoroughly mix spray grade ammonium sulfate in water, add this product, then add crop oil concentrate.			

**SPECIAL APPLICATION INSTRUCTIONS**

- Apply at 50 to 90% tall fescue green-up.
- Use the higher rate of this product if less tall fescue green matter is present.
- Apply in a minimum of 15 to 20 gallons of water per acre at a spray pressure of 40 to 60 psi at the nozzle. Apply using flat fan or hollow cone nozzles.
- 2,4-D ester may be added to this tank mix for broadleaf control (see 2,4-D ester label for weeds controlled).

**Restrictions**

- **DO NOT** mow area for two weeks after application of this product.
- **DO NOT** graze treated fields or feed treated forage and/or hay to livestock.
- **DO NOT** plant any crop for 30 days after application, unless clethodim is registered for use in that crop.
- **DO NOT** use flood nozzles.

**DIRECTIONS FOR USE IN ORNAMENTALS**

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

**ORNAMENTALS**  
**SPECIFIC DIRECTIONS AND RESTRICTIONS AVATAR**

Use Rate Per acre	Special Use Instructions
6 – 16 fl oz (0.094 – 0.25 lb ai)	<p>For ornamental plant uses, <i>AVATAR</i> can be used to control labeled grass weeds in greenhouses, lathouses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plantings, and structure landscapes. The plants listed below have been tested for use with <i>AVATAR</i> applications. See tables with listed ornamentals (ornamental trees, ground covers, garden flowers and plants, and shrubs).</p> <p>Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v).</p> <p>Use of crop oil concentrate is not advised since it may injure flowers and foliage.</p> <p>For repeat application make on a minimum of a 14 day interval.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• This product must not be applied to non-bearing fruit or nut crops which are grown for root stock.</li> <li>• <b>DO NOT</b> apply more than 16 fluid ounces (0.25 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 32 fluid ounces (0.50 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> </ul>

**IMPORTANT**

*AVATAR* successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant tolerance to *AVATAR* 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 required 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 *AVATAR* have investigated the safety factor to ornamental plants not listed on the label.

The following plants have shown a tolerance for *AVATAR* applications:

**ORNAMENTAL TREES**

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

**GROUND COVERS**

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Bugleweed, Carpet	<i>Ajuga reptans</i>	Moneywort	<i>Lysimachia nummularia</i>
Ivy, English	<i>Hedera helix</i>	Mondo Grass, White	<i>Ophiopogon jaburan</i>
Japanese Spurge	<i>Pachysandra terminalis</i>	Mondo Grass Dwarf	<i>Ophiopogon japonicus</i>
Lilyturf	<i>Liriope muscari</i>	Periwinkle, Lesser	<i>Vinca minor</i>



**GARDEN FLOWERS AND PLANTS**

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Ageratum	<i>Ageratum</i> spp.	Jasmine Tobacco	<i>Nicotiana glauca</i>
Alyssum*, Sweet	<i>Loxandria maritima</i>	Loosestrife	<i>Lythrum salicaria</i>
Asparagus Fern	<i>Asparagus setaceus</i>	Marigold	<i>Tagetes</i> spp.
Bleeding Heart	<i>Dicentra spectabilis</i>	Partridgeberry	<i>Mitella repens</i>
Cast Iron Plant	<i>Aspidistra elatior</i>	Petunia*	<i>Petunia hybrida</i>
Chrysanthemum	<i>Chrysanthemum</i> spp.	Phlox	<i>Phlox</i> spp.
Cinquefoil	<i>Potentilla</i> spp.	Pinks	<i>Dianthus</i> spp.
Coleus	<i>Coleus</i> spp.	Portulaca	<i>Portulaca grandiflora</i>
Coralbells	<i>Heuchera sanguinea</i>	Salvia	<i>Salvia</i> spp.
Cranesbill	<i>Geranium</i> spp.	Saxifrage	<i>Saxifrage</i> spp.
Dahlia	<i>Dahlia</i> spp.	Sedum	<i>Sedum</i> spp.
Daisy, Trailing African	<i>Osteospermum fruticosum</i>	Selloum	<i>Philodendron selloum</i>
Daylily	<i>Hemerocallis</i> spp.	Snapdragon*	<i>Antirrhinum majus</i>
Dusty Miller	<i>Senecio cineraria</i>	Sweet Flag	<i>Acorus gramineus</i>
Euonymus	<i>Euonymus</i> spp.	Tickseed	<i>Coreopsis grandiflora</i>
Gazania	<i>Gazania</i> spp.	Touch-Me-Not	<i>Impatiens</i> spp.
Geranium, House	<i>Pelargonium hortorum</i>	Verbena	<i>Verbena</i> spp.
Heather, False	<i>Cuphea hyssopifolia</i>	Violet	<i>Viola</i> spp.
Hosta	<i>Hosta fortunei</i>	Yarrow, Common	<i>Achillea millefolium</i>
Iris	<i>Iris</i> spp.	Zinnia	<i>Zinnia elegans</i>

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

**SHRUBS**

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Abelia	<i>Abelia</i> spp.	Indian Hawthorn	<i>Raphiolepis indica</i>
Anise, Purple	<i>Illicium floridanum</i>	Jasmine	<i>Jasminum</i> spp.
Aucuba	<i>Aucuba</i> spp.	Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Azalea*	<i>Rhododendron</i> spp.	Jasmine, Star	<i>Trachelospermum jasminoides</i>
Bamboo	<i>Bambusa</i> spp.	Juniper	<i>Juniperus</i> spp.
Barberry, Japanese	<i>Berberis thunbergii</i>	Lantana	<i>Lantana</i> spp.
Barberry, Magellan	<i>Berberis buxifolia</i>	Nandina* Bamboo, Heavenly	<i>Nandinia domestica</i>
Bayberry	<i>Myrica pensylvanica</i>	Oleander, Common	<i>Nerium oleander</i>
Bottlebrush	<i>Callistemon citrinus</i>	Oregon Grape	<i>Mahonia aquifolium</i>
Boxwood, Common	<i>Buxus sempervirens</i>	Photinia	<i>Photinia</i> spp.
Camellia, Common	<i>Camellia japonica</i>	Pittosporum	<i>Pittosporum</i> spp.
Candytuft	<i>Iberis sempervirens</i>	Podocarpus	<i>Podocarpus</i> spp.
Cleyera	<i>Cleyera japonica</i>	Privet	<i>Ligustrum</i> spp.
Coralberry	<i>Ardisia crenata</i>	Pyracantha	<i>Pyracantha</i> spp.
Crape Myrtle	<i>Lagerstroemia indica</i>	Rhododendron	<i>Rhododendron</i> spp.
Coyote Brush	<i>Baccharis pilularis</i>	Rose	<i>Spiraea bumalda</i>
Fig, Creeping	<i>Ficus pumila</i>	Sweet Olive	<i>Osmanthus fragrans</i>
Gardenia	<i>Gardenia</i> spp.	Viburnum	<i>Viburnum tinus</i>
Holly	<i>Ilex</i> spp.	Wisteria	<i>Wisteria</i> spp.
Honeysuckle	<i>Lonicera</i> spp.	Yellow Sage/Shrub Verbena	<i>Lantana camara</i>

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

## ANNUAL GRASSES IN ORNAMENTALS

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

### Restrictions

- **DO NOT** apply more than the high rate listed below per application.
- **DO NOT** exceed the maximum yearly rate listed in **Table 1**.
- **DO NOT** make more than four applications per year.

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT INCHES	RATE FL. OZ. (lb ai) / ACRE <sup>(1)</sup>	HIGH RATE <sup>(2)</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	8 (0.125)	16 (0.25)
Broadleaf Signalgrass	<i>Brachiana platyphylla</i>	2 to 6	8 (0.125)	16 (0.25)
Brome				
California	<i>Bromus carinatus</i>	2 to 6	8 (0.125)	16 (0.25)
Cheat	<i>Bromus secalinus</i>	2 to 6	8 (0.125)	16 (0.25)
Downy	<i>Bromus tectorum</i>	2 to 6	8 (0.125)	16 (0.25)
Ripgut	<i>Bromus diandrus</i>	2 to 6	8 (0.125)	16 (0.25)
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	8 (0.125)	16 (0.25)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	8 (0.125)	16 (0.25)
Large	<i>Digitaria sanguinalis</i>	2 to 6**	8 (0.125)	16 (0.25)
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	8 (0.125)	16 (0.25)
Southern	<i>Digitaria ciliaris</i>	2 to 6**	8 (0.125)	16 (0.25)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	8 (0.125)	16 (0.25)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	8 (0.125)	16 (0.25)
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	8 (0.125)	16 (0.25)
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	8 (0.125)	16 (0.25)
Green	<i>Setaria viridis</i>	2 to 8	8 (0.125)	16 (0.25)
Yellow	<i>Setaria glauca</i>	2 to 8	8 (0.125)	16 (0.25)
Goosegrass	<i>Eleusine indica</i>	2 to 6**	8 (0.125)	16 (0.25)
Itchgrass	<i>Rottboellia cochin</i>	2 to 6	8 (0.125)	16 (0.25)
Junglerice	<i>Echinochloa colona</i>	2 to 6	8 (0.125)	16 (0.25)
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	8 (0.125)	16 (0.25)
Rabbitsfootgrass	<i>Polygonum monspeliensis</i>	1 to 4	8 (0.125)	16 (0.25)
Red Rice	<i>Oryza sativa</i>	1 to 3	8 (0.125)	16 (0.25)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	8 (0.125)	16 (0.25)
Italian	<i>Lolium multiflorum</i>	2 to 6	8 (0.125)	16 (0.25)
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	8 (0.125)	16 (0.25)
Shattercane	<i>Sorghum bicolor</i>	6 to 18	8 (0.125)	16 (0.25)
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	8 (0.125)	16 (0.25)
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	8 (0.125)	16 (0.25)
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	8 (0.125)	16 (0.25)
Mexican	<i>Leptochloa uninervia</i>	2 to 6	8 (0.125)	16 (0.25)

continued next page

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT INCHES	RATE FL. OZ. (lb ai) / ACRE <sup>(1)</sup>	HIGH RATE <sup>(2)</sup>
Red	<i>Leptochloa filiformis</i>	2 to 6	8 (0.125)	16 (0.25)
Texas Panicum	<i>Panicum texanum</i>	2 to 6	8 (0.125)	16 (0.25)
Volunteer Cereals				
Barley	<i>Hordeum vulgare</i>	2 to 6	8 (0.125)	16 (0.25)
Oats	<i>Avena sativa</i>	2 to 6	8 (0.125)	16 (0.25)
Rye	<i>Secale cereale</i>	2 to 6	8 (0.125)	16 (0.25)
Wheat	<i>Triticum aestivum</i>	2 to 6	8 (0.125)	16 (0.25)
Volunteer Corn	<i>Zea mays</i>	4 to 12	6 (0.094)	8 (0.125)
Volunteer Corn	<i>Zea mays</i>	12 to 24	8 (0.125)	16 (0.25)
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	8 (0.125)	16 (0.25)
Wild Oats	<i>Avena fatua</i>	2 to 6	8 (0.125)	16 (0.25)
Wild Proso Millet	<i>Panicum millaceum</i>	2 to 10	8 (0.125)	16 (0.25)
Witchgrass	<i>Panicum capillare</i>	2 to 8	8 (0.125)	16 (0.25)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	8 (0.125)	16 (0.25)

\* Generally occurs between 3-leaf stage and tillering.

\*\* Length of lateral growth.

<sup>(1)</sup> 8 fluid ounces per acre = approximately 0.2 fluid ounces per 1000 square feet

<sup>(2)</sup> 16 fluid ounces per acre = approximately 0.4 fluid ounces per 1000 square feet

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

ANNUAL BLUEGRASS CONTROL WITH AVATAR IN ORNAMENTALS				
GRASS SPECIES	WEED STAGE	R RATE FL. OZ. (lb ai) / ACRE	HIGH RATE	
Annual Bluegrass ( <i>Poa annua</i> )	to 4-leaf	6 (0.094)	16 (0.25)	
<ul style="list-style-type: none"> <li>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).</li> <li>Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.</li> <li>Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.</li> <li>Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).</li> </ul>				
<b>Restrictions</b>				
<ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 16 fluid ounces (0.25 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 32 fluid ounces (0.50 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>For repeat applications make on a minimum of a 14 day interval.</li> </ul>				

#### PERENNIAL GRASSES IN ORNAMENTALS

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

#### Restrictions

- DO NOT** apply more than 16 fluid ounces (0.25 lb ai) per acre per application.
- DO NOT** apply more than 32 fluid ounces (0.50 lb ai) per acre per year.
- DO NOT** make more than 2 applications per acre per year.
- For repeat applications make on a minimum of a 14 day interval.

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ. (lb ai) / ACRE <sup>(1)</sup>	HIGH RATE <sup>(2)</sup>
<i>Bermudagrass (Cynodon dactylor)</i>			
First Application	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
<i>Quackgrass (Elytrigia repens)</i>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 8	8 (0.125)	16 (0.25)
<i>Rhizome Johnsongrass (Sorghum halepense)</i>			
First Application	12 to 24	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	6 to 18	6 (0.094)	8 (0.125)
<i>Wirestem Muhly (Muhlenbergia frondosa)</i>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 8	8 (0.125)	16 (0.25)

<sup>(1)</sup> 8 fluid ounces per acre = approximately 0.2 fluid ounces per 1000 square feet.

<sup>(2)</sup> 16 fluid ounces per acre = approximately 0.4 fluid ounces per 1000 square feet.

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v)

## STORAGE AND DISPOSAL

**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.

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

**Container Handling:**

**NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS):** **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS):** **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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