



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Registration Division (7505P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

91234-228

Date of Issuance:

8/16/21

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

A229.02

Name and Address of Registrant (include ZIP Code):

Atticus, LLC  
 5000 CentreGreen Way, Suite 100  
 Cary, NC 27513

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.

Signature of Approving Official:

*Heather E McFarley*

Date:

8/16/21

Heather McFarley, Acting Product Manager 24  
 Fungicide and Herbicide Branch, Registration Division (7505P)

3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 91234-228.”
4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 09/11/2020
- Alternate CSF 1 dated 06/11/2021
- Alternate CSF 2 dated 06/11/2021

If you have any questions, please contact Francisco Llarena-Arias by phone at 703-347-0459, or via email at [llarena-arias.francisco@epa.gov](mailto:llarena-arias.francisco@epa.gov)

Enclosure:

- Stamped label

**ACCEPTED**

08/16/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 91234-228

{Note to reviewer: [Text] in brackets denotes optional or explanatory language}  
{Note to reviewer: {Text} in braces denotes where in the final label text will appear}  
{BOOKLET FRONT PANEL LANGUAGE}

OXYFLUORFEN	GROUP	<b>14</b>	HERBICIDE
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# A229.02

[Alternate Brand Name: ScrolloVR]

Contains oxyfluorfen, the active ingredient used in [GoalTender® Herbicide].

[Use Directions For: artichokes (globe), broccoli/cabbage/cauliflower, cacao, citrus (nonbearing), coffee, conifer (seedbeds, transplants, container stock) and selected deciduous trees, corn, cotton, cottonwood, eucalyptus, fallow bed, (cotton/soybeans) fallow land, garbanzo beans, garlic, guava, horseradish, jojoba, mint (spearmint and peppermint tops), onions, onions grown for seed, papaya, soybeans, taro, tree fruit/nut/vine]

<b>ACTIVE INGREDIENT:</b>	(% by weight)
oxyfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy)4-(trifluoromethyl)benzene.....	41%
<b>OTHER INGREDIENTS:</b> .....	59%
<b>TOTAL</b> .....	100.0%

Contains 4 pounds active ingredient per gallon.

Shake Well Before Using

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

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 [below] [inside label booklet] for [additional] [First Aid,] [and] [Precautionary Statements] [and] [Directions for Use].

[A229.02] is not manufactured, or distributed by Nufarms Americas, Inc., seller of [GoalTender® Herbicide].

EPA Reg. No.: 91234-XX

EPA Est. No.:

Net Contents:

Manufactured for:  
**Atticus, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

## {LANGUAGE INSIDE BOOKLET}

### **Precautionary Statements** **Hazards to Humans and Domestic Animals** **CAUTION**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.

**For Chemical Emergency:** Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

Avoid contact with skin or clothing.

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

**Mixers, loaders and applicators using engineering controls (see Engineering Controls requirements below) must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate) when mixing and loading
- Chemical-resistant apron when mixing and loading

**All other mixers, loaders, applicators and other handlers must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate)
- Protective eyewear (goggles or face shield)
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when exposed to the product concentrate

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

#### **User Safety Requirements**

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

**Engineering Controls:** Mixers and loaders supporting aerial applications to fallow land or ground applications to corn, cotton, or soybeans must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], and must:

- Wear the personal protective equipment required above for mixers/loaders using engineering controls
- Wear protective eyewear if the system operates under pressure, and
- Be provided and have immediately available for use in case of emergency, such as a broken package, spill, or equipment breakdown, coveralls and chemical-resistant footwear.

Handlers performing applications to corn must use an enclosed cab that meets the definition in the Worker Protection Standard for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators must:

- Wear the personal protective equipment required above for applicators using engineering controls
- Be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, and chemical-resistant headgear, if overhead exposure.
- Take off any PPE that was worn in the treated area before reentering the cab, and
- Store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)];

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

### **User Safety Recommendations**

#### **Users should:**

- Wash 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**

This product is toxic to aquatic invertebrates and wildlife. **DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. See Directions for Use for additional restrictions. **DO NOT** contaminate water when disposing of equipment wash water or rinseate.

## **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

**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, except for the following:

- Onions, garlic and horseradish: The REI is 48 hours

For early entry into 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, wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron

**Non-Agricultural Use Requirements:**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**DO NOT enter or allow others to enter until sprays have dried.**

**PRODUCT INFORMATION**

**A229.02** is a selective herbicide for postemergence and preemergence residual weed control in labeled crops. Directions provided in the Use Information section of this label apply to all uses of this product. Use directions for listed crops are provided in the Crop-Specific Use Directions section of this label.

**Use Restrictions**

**The following use restrictions apply to all labeled uses of A229.02 (Refer to directions for use for individual crops for additional crop-specific use restrictions.):**

- **DO NOT** graze or harvest plants from areas treated with **A229.02** for feed or forage.
- Apply **A229.02** only with ground equipment unless otherwise specified in crop-specific use directions.
- **A229.02** is phytotoxic to plant foliage. Avoid accidental spray contact or drift with established crops. **DO NOT** apply when weather conditions favor drift to non-target areas.
- Some labeled crops are tolerant to over-the-top applications of **A229.02** if applied during dormancy. **DO NOT** make over-the-top applications unless specifically allowed in crop-specific use directions.
- **DO NOT** treat ditch banks or waterways with **A229.02** or contaminate water used for irrigation or domestic purposes.
- **DO NOT** apply **A229.02** in enclosed greenhouses as foliage injury will result.

**RESISTANCE-MANAGEMENT**

For resistance management, this product is a Group 14 herbicide. Any weed population may contain plants naturally resistant to this product and other Group 14 herbicides. The resistant individual may dominate the weed population if these herbicides are used repeatedly in the same fields. 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 14 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 before and 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 including 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 Atticus LLC at 984-465-4800.

#### **Management of Resistant Biotypes**

Since the occurrence of resistant weeds cannot be determined until after product use and scientific confirmation, to the extent consistent with applicable law, manufacturer is not responsible for any losses that may result from the failure of this product to control resistant weed 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 these Mode of Actions have been found in your region. Do not assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

#### **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.

## 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.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1)
- The boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters.
- 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.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- When wind speeds are 5 to 10 mph maintain a minimum downwind buffer zone of at least 1/2 mile from all crops and desirable vegetation, except the following:
  - 150 feet from dormant tree fruit/nut/vine crops and overwintering sugar beets.
  - 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar beets, and non-targeted vegetable fallow beds.
- For upwind and side borders, maintain buffer zone of 150 feet from any non-targeted vegetable fallow bed, crop, or desirable vegetation.

### Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a coarse 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.

### Boom-Less Ground Applications:

- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

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 spray 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**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. 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, use 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 WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Spray Drift Buffer Restrictions**

- A 25-foot vegetative buffer strip must be maintained between all areas treated with this product and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.
- **DO NOT** allow spray to drift from the application site and contact people, structures people may occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.
- Use coarse spray according to ASAE 572 definition for standard nozzles or VMD of 475 microns for spinning atomizer nozzles.

**Rotation Crop Restrictions**

- **DO NOT** rotate to small-grain crops (includes barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, wild rice) within 10 months following an application of **A229.02**.
- **DO NOT** direct seed any crop, other than a crop labeled for use with **A229.02**, within 60 days following application.
- **DO NOT** transplant seedlings of crops, other than crops labeled for use with **A229.02**, within 30 days following application.
- **IMPORTANT: Unless otherwise specified elsewhere in this label or Atticus, LLC supplemental label, treated soil must be thoroughly mixed to a depth of 4 inches after harvest (or abandoning) of the treated crop but prior to planting of the rotational crop. Failure to achieve thorough and complete mixing or to follow the required minimum plant-back interval may result in crop injury, stand reduction and/or vigor reduction of the plant-back crop.** See specific fallow bed labeling instructions for required treatment-to-planting intervals following application of **A229.02** to fallow beds or fallow fields.

Common Name	Scientific Name
ageratum	<i>Ageratum conyzoides</i>
amaranth, spiny	<i>Amaranthus spinosus</i>
balsamapple	<i>Momordica charantia</i>

barnyardgrass (watergrass) <sup>1</sup>	<i>Echinochloa crus-galli</i>
bedstraw, catchweed	<i>Galium aparine</i>
bittercress, lesser	<i>Cardamine oligosperma</i>
bluegrass, annual <sup>1</sup>	<i>Poa annua</i>
buckwheat, wild	<i>Polygonum convolvulus</i>
burclover	<i>Medicago hispida</i>
buttercup, smallflower	<i>Ranunculus abortivus</i>
buttonweed	<i>Borreria laevis</i>
camphorweed	<i>Heterotheca subaxillaris</i>
canarygrass (annual)	<i>Phalaris canariensis</i>
carpetweed	<i>Mollugo verticillata</i>
cheeseweed (malva)	<i>Malva parviflora</i>
clover, red <sup>1</sup>	<i>Trifolium pratense</i>
clover, white <sup>1</sup>	<i>Trifolium repens</i>
cocklebur, common	<i>Xanthium pensylvanicum</i>
crabgrass, large (hairy) <sup>1</sup>	<i>Digitaria sanguinalis</i>
crotalaria	<i>Crotalaria species</i>
croton, tropic	<i>Croton glandulosus</i>
cudweed, narrowleaf	<i>Gnaphalium falcatum</i>
eveningprimrose, cutleaf	<i>Oenothera laciniata</i>
fiddleneck, coast <sup>1</sup>	<i>Amsinckia intermedia</i>
filaree, broadleaf	<i>Erodium botrys</i>
filaree, redstem	<i>Erodium cicutarium</i>
filaree, whitestem	<i>Erodium moschatum</i>
fireweed (from seed)	<i>Epilobium angustifolium</i>
flixweed	<i>Descurainia sophia</i>
foxtail, giant <sup>1</sup>	<i>Setaria faberi</i>
foxtail, green	<i>Setaria viridis</i>
foxtail, yellow	<i>Setaria lutescens</i>
geranium, Carolina	<i>Geranium carolinianum</i>
goosegrass <sup>1</sup>	<i>Eleusine indica</i>
groundcherry, cutleaf	<i>Physalis angulata</i>
groundcherry, Wright	<i>Physalis wrightii</i>
groundsel, common	<i>Senecio vulgaris</i>
henbit	<i>Lamium amplexicaule</i>
horseweed (maretail)	<i>Conyza canadensis</i>
jimsonweed	<i>Datura stramonium</i>
johnsongrass, seedling	<i>Sorghum halepense</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
ladythumb (smartweed)	<i>Polygonum persicaria</i>
lambsquarters, common	<i>Chenopodium album</i>
lettuce, prickly (china lettuce)	<i>Lactuca scariola</i>
mallow, little (malva)	<i>Malva parviflora</i>
mayweed (dog fennel)	<i>Anthemis cotula</i>
minerslettuce	<i>Montia perfoliata</i>
morningglory species, annual	<i>Ipomoea species</i>
morningglory, ivyleaf <sup>1</sup>	<i>Ipomoea hederacea</i>
morningglory, tall <sup>1</sup>	<i>Ipomoea purpurea</i>
mustard, black	<i>Brassica nigra</i>
mustard, blue (purple mustard)	<i>Chorispora tenella</i>
mustard, common yellow	<i>Brassica campestris</i>
mustard, hedge	<i>Sisymbrium officinale</i>
mustard, tumble (Jim hill mustard)	<i>Sisymbrium altissimum</i>
mustard, wild	<i>Brassica kaber</i>

nettle, burning	<i>Urtica urens</i>
nightshade, American black	<i>Solanum americanum</i>
nightshade, black	<i>Solanum nigrum</i>
nightshade, hairy	<i>Solanum sarrachoides</i>
oats, wild	<i>Avena fatua</i>
orach, red	<i>Atriplex rosea</i>
oxalis (bermuda buttercup)	<i>Oxalis pes-caprae</i>
panicum, fall	<i>Panicum dichotomiflorum</i>
pepperweed, Virginia	<i>Lepidium virginicum</i>
pepperweed, yellowflower	<i>Lepidium perfoliatum</i>
pigweed, prostrate	<i>Amaranthus blitoides</i>
pigweed, redroot	<i>Amaranthus retroflexus</i>
pimpernel, scarlet	<i>Anagallis arvensis</i>
poinsettia, wild	<i>Euphorbia heterophylla</i>
puncturevine	<i>Tribulus terrestris</i>
purslane, common	<i>Portulaca oleracea</i>
pusley, Florida	<i>Richardia scabra</i>
ragweed, common	<i>Ambrosia artemisiifolia</i>
redmaids	<i>Calandrinia caulescens</i>
rocket, London	<i>Sisymbrium irio</i>
ryegrass, Italian	<i>Lolium multiflorum</i>
sage, lanceleaf	<i>Salvia reflexa</i>
sandbur, field	<i>Cenchrus incertus</i>
sandspurry, red	<i>Spergularia rubra</i>
sesbania, hemp	<i>Sesbania exaltata</i>
shepherdspurse <sup>1</sup>	<i>Capsella bursa-pastoris</i>
sicklepod	<i>Cassia obtusifolia</i>
sida, prickly (teaweed)	<i>Sida spinosa</i>
signalgrass, broadleaf	<i>Brachiaria platyphylla</i>
smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
sorrel, red (from seed)	<i>Rumex acetosella</i>
sowthistle, annual	<i>Sonchus oleraceus</i>
speedwell, birdseye	<i>Veronica persica</i>
spurge, garden	<i>Euphorbia hirta</i>
spurge, prostrate <sup>2</sup>	<i>Euphorbia supina</i>
spurge, spotted <sup>2</sup>	<i>Euphorbia maculata</i>
spurry, corn	<i>Spergula arvensis</i>
tansymustard	<i>Descurainia pinnata</i>
thistle, bull <sup>2</sup>	<i>Cirsium vulgare</i>
thistle, Russian	<i>Salsola kali</i>
velvetleaf	<i>Abutilon theophrasti</i>
witchgrass	<i>Panicum capillare</i>
witchweed	<i>Striga asiatica</i>
woodsorrel, common yellow <sup>2</sup>	<i>Oxalis stricta</i>

<sup>1</sup> Highest rate and/or multiple applications may be required for acceptable control.

<sup>2</sup> Preemergence control only.

## Application Methods and Cultural Practices

### Preemergence Weed Control

Apply the specified rate in a broadcast spray volume [of 15 or more gallons] of water per acre using calibrated spray equipment capable of uniform application to the soil surface. Seedling weeds are controlled as they come in contact with the soil-applied herbicide during emergence. Preemergence weed control is most effective when **A229.02** is applied to soil surfaces that are clean (free of crop or weed residues or clippings) and weed free. Prior

to application, weed or crop residues must be removed by thorough incorporation into the soil using tillage equipment or by blowing the area to be treated. At least 0.25 inch of irrigation or rainfall is required to activate **A229.02** and must occur within 3 or 4 weeks after application. For optimum results, **A229.02** must be applied to prepared beds or soil surfaces that will be left undisturbed during the time period for which weed control is desired. Cultural practices that disturb or redistribute surface soil following treatment with **A229.02** including cutting water furrows will reduce weed control effectiveness.

**Application Rates and Rate Ranges:** Where rate ranges are given, use the lower rate in the rate range on coarse texture soils with less than 1% organic matter and lighter weed infestations. Use higher rates in the rate range on medium to fine texture soils, soils containing greater than 1 % organic matter, heavy weed infestations, or for extended residual preemergence weed control.

**Postemergence Weed Control**

Apply the specified rate in a broadcast spray volume of 20 or more gallons of water per acre (a minimum 10 gallons if applying **A229.02** in tank mix with glyphosate). Because **A229.02** is a contact herbicide, complete and uniform coverage of weed foliage is essential for optimum postemergence control. Increase the spray volume to ensure complete and uniform coverage as weed height and density increases or in the presence of heavy trash (weed or crop residue). Postemergence applications of **A229.02** are most effective when made to weeds at the seedling stage. Applications made later than the 4-inch or 4 leaf stage may result in partial control or suppression. Postemergence applications must be made to seedling grasses not exceeding the 2-leaf stage. The addition of 0.25% v/v (2 pints per 100 gallons of spray) of an 80% active nonionic surfactant, labeled for application to growing crops, will enhance herbicidal effectiveness in controlling emerged weeds.

**Postemergence Application Rates:** Where a rate range is given, use a higher rate in the rate range for heavy weed infestations, weeds in advanced stages of growth or for extended residual preemergence weed control following control of existing emerged weeds.

**Ground Application**

**Ground Broadcast:** Apply **A229.02** using conventional low-pressure ground spray equipment with flat fan spray nozzles. Follow manufacturer's specifications for spraying pressure and boom height. An off-center (OC) nozzle positioned at the end of the boom may be desired. Check calibration of spray equipment before each use.

**Directed Sprays:** Apply **A229.02** as a coarse low-pressure spray in a spray volume of 20 or more gallons of spray per acre (broadcast basis). Follow manufacturer's specifications for nozzle spacing and operating pressure. Spray must be directed toward the soil at the base of the crop. In row crops, use a minimum of 2 flat fan nozzles per row (one on each side) and for optimum spray coverage use 4 flat fan nozzles per row (two on each side). The 2 forward nozzles must point forward and downward while the rear nozzles must point to the rear and downward. With either sprayer system, nozzles must be adjusted to cover the weed foliage but minimize contact with the crop. **DO NOT** apply with hollow cone nozzles.

**IMPORTANT: A229.02 is a contact herbicide. Contact of sprays or drift with foliage or green stems can cause severe crop injury. Use directed sprays and spray shields and/or leaf lifters as necessary to minimize contact of spray or drift with crop foliage or stems. Young green stems of woody plants are also susceptible to injury from spray contact. Potential for injury to woody stems diminishes with loss of green color and the development of relatively impervious non-living corky tissue (bark) on the surface of the stem.**

**Band Application:** Application rates listed in this label are for broadcast application. For band application, the rate per broadcast acre must be reduced according to the following formula:

$$\frac{\text{Band Width (in inches)}}{\text{Row Width (in inches)}} \times \text{Rate per Broadcast Acre} = \text{Amount Needed per Acre for Banded Application}$$

### Spot Application

For spot application, apply sprays uniformly to soil for preemergence weed control or on a spray-to-wet basis for postemergence weed control. Mix the required amount of **A229.02** with the specified amount of water. For preemergence weed control, use one-half to one gallon of spray per 1000 sq ft. For postemergence weed control use a minimum of 1 gallon of spray per 1000 sq ft and add an 80% nonionic surfactant at the rate of 0.5 fl oz (1 Tbs) per gallon of spray. If making spot applications within an established crop, use coarse low-pressure sprays and direct the spray to the soil beneath the plants. To avoid crop injury, **DO NOT** allow spray to contact leaves and stems of herbaceous plants or leaves or green stems of woody plants.

Amount of A229.02 Required to Treat 1000 sq ft at Specified Application Rate					
0.25 pt/acre (0.125 lb ai)	0.5 pt/acre (0.25 lb ai)	1.0 pt/acre (0.5 lb ai)	1.5 pt/acre (0.75 lb ai)	2.0 pt/acre (1.0 lb ai)	4.0 pt/acre (2.0 lb ai)
0.1 fl oz (2.75 ml)	0.2 fl oz (5.5 ml)	0.4 fl oz (11 ml)	0.55 fl oz (16.5 ml)	0.75 fl oz (22 ml)	1.5 fl oz (44 ml)

1 pt = 16 fl oz; 1 fl oz = 29.6 (30) ml

### Aerial Application

Use aerial boom equipment designed for use with herbicides and a minimum spray volume of 10 gallons per acre (5 gallons per acre if tank mixed with glyphosate). **DO NOT** aerially apply **A229.02** unless crop-specific use directions specifically allow and provide directions for aerial application.

**AVOID DRIFT:** Exercise extreme care to avoid herbicide contact with any desirable dormant or non-dormant crop, plant, tree or vegetation as severe injury may result. Extreme care must be exercised to prevent spray drift that could result in damage to other crops or desirable vegetation. Adhere to the following guidelines when aerial applications are to be made.

Where states have more stringent regulations, they must be observed.

The use of a drift control agent may be required by local regulations. However, the drift control agent may decrease the weed control effectiveness.

### Chemigation Instructions

**DO NOT** apply this product through any irrigation system unless the instructions for chemigation are followed. **DO NOT** apply **A229.02** through chemigation equipment unless chemigation is allowed by Crop-Specific Use Directions.

Apply this product only through sprinkler (center pivot, solid set, portable lateral, or low-volume (micro sprinkler)), drip (trickle), or flood (basin) irrigation systems. Refer to use directions for specific crops for instructions as to which type of irrigation system may be used. **DO NOT** apply this product through any other type of irrigation system.

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- If you have questions about calibration, contact the State Extension Service specialists, equipment manufacturers, or other experts.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **Sprinkler Chemigation (Foliar Spray Uses)**

For sprinkler irrigation, sufficient water must be applied at the beginning of the irrigation period to insure uniform wetting of the plant and/or soil surfaces. Meter **A229.02** into the sprinkler irrigation system at a continuous uniform rate during the middle 1/3 of the irrigation period to allow for uniform distribution to target weeds and/or soil surface. Continue irrigation during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. During sprinkler irrigation, sufficient water must be applied to insure water penetration to a depth of two inches.

**AVOID DRIFT: Extreme care must be exercised to prevent spray drift that could result in damage to other crops or desirable vegetation. Use the following guidelines when applications of A229.02 are made through sprinkler irrigation equipment:**

1. **DO NOT** apply when the wind direction is not stable, when inversion conditions exist, or when wind velocity exceeds 10 mph.
2. When wind speeds are 5 mph or less, maintain a minimum downwind buffer zone of at least 1/2 mile from all crops and desirable vegetation, except for the following:  
Maintain a minimum downwind buffer zone of:
  - 150 feet from dormant tree fruits, dormant vines and overwintering sugar beets.
  - 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar beets and vegetable fallow beds.
3. When wind speeds are between 5 and 10 mph, downwind buffer zones in excess of those listed above are suggested.
4. For upwind and side borders, maintain a minimum buffer zone of 150 feet from any vegetable fallow bed, crop, or desirable vegetation.

To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- 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 closed, 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.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

### **Flood (Basin) Chemigation (Soil Drench Uses)**

**A229.02** must be continuously metered into the water during the entire irrigation period. Agitation in the pesticide supply tank is suggested. Best weed control results from **A229.02** applied through flood (basin) irrigation systems are obtained when a uniform distribution and flow of irrigation water is maintained over level land.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- 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 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 closed, 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.

#### **Drip (Trickle) Chemigation (Soil Drench Uses)**

To achieve optimum distribution of **A229.02** in the soil surface, meter **A229.02** at a continuous uniform rate during the middle 1/3 of the irrigation period. For best results, **A229.02** must be uniformly distributed across the wetted area to help reduce the "ring effect" of weed escapes. Continue irrigation during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system.

To apply a pesticide using drip (trickle) chemigation, the chemigation system must meet the following specifications:

- 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 closed, solenoid-operated valve located on the intake side of the injection pipe 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.

#### **Chemigation Calibration: For Low-Volume Sprinklers (Microsprinklers) and Drip (Trickle) Irrigation Systems**

Calculation of use rate is based on wetted area around emitters - NOT on grove acres. To determine correct amount of **A229.02**, use the following formula:

1. Treated area per each emitter = A

$$A = 3.14 \times (\text{radius} \times \text{radius})$$

**Example:** If the average distance from emitter to perimeter of wetted area measured at the soil surface is 13 inches, then

$$A = 3.14 \times (13'' \times 13'')$$

$$A = 3.14 \times (169'')$$

$$A = 530.7 \text{ square inches}$$

2. The area in square feet wet in each acre = B

$$B = \frac{A \times \text{emitters/acre}}{144}$$

**Example:** If there are 300 emitters per acre, then

$$B = \frac{530.7 \times 300}{144} = B = 1105.6 \text{ square feet wetted per acre}$$

3. The total area (in square feet) wet by your system = C

$$C = B \times \text{acres covered by system}$$

**Example:** If the system covers 20 acres, then

$$C = 1105.6 \text{ square feet per acre} \times 20 \text{ acres}$$

$$C = 22,112 \text{ square feet wetted by system}$$

4. Amount of **A229.02** to inject = S

$$\text{Rate per treated acre of } \mathbf{A229.02} = R$$

$$S = \frac{C \times R}{43,560} = \text{quarts of } \mathbf{A229.02}$$

**Example:** If the desired application rate per treated acre is 1 quart of **A229.02**, then

$$S = \frac{22,112 \times 1.0}{43,560} = S = 0.507 \text{ quarts of } \mathbf{A229.02} \text{ must be injected into system.}$$

**Note:** Select the proper rate based on weed spectrum and desired length of control (See Rate Ranges section below).

### Chemigation Systems Connected to Public Water Systems

If the chemigation system is connected to a public water supply, the following conditions must also be met:

- Public water systems 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.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option to the RPZ, the water from the public water system must be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, normally closed, 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 shutdown.



- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, including 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.

### **Mixing Directions**

**Shake well before use.** Fill the spray tank at least one-third full of clean water. With the pump and agitator running, add the specified amount of herbicides to the spray tank. The order of addition to the spray tank must be (1) wettable powders, (2) flowables and (3) soluble liquids. Complete filling of the spray tank with water.

**Use of Surfactants:** For all applications of **A229.02** where postemergence weed control is desired (**except garlic and onions**), add a minimum of 2 pints of 80% active nonionic surfactant (cleared for application to growing crops) per each 100 gallons of spray. The addition of 4 pints of nonionic surfactant is advised to enhance postemergence activity when hard water (greater than 600 ppm) is used. Maintain agitation until spraying is completed.

### **Tank Mixing Precautions:**

- 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.
- Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.
- **DO NOT** exceed specified application rates. **DO NOT** tank mix this product with another pesticide that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.

**Tank Mix Compatibility Testing:** Perform a jar test prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination must not be used.

**Sprayer Clean-up:** Thoroughly flush spray equipment (tank, pump, hoses and boom) with clean water before and after each use. Residues of **A229.02** remaining in spray equipment may damage other crops. The addition of a non-ionic surfactant to equipment flushing waters at the rate of 1 quart per 100 gallons is specified to aid in removal of residues of **A229.02**.

### Crop-Specific Use Directions

#### Artichoke (Globe) (California Only)

#### For Pre-Transplanting and Post-Crown Planting Applications to Artichokes

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	0.5 – 2 (0.25 – 1.0 lb ai)	<p><b>A229.02</b> may be applied for pre-emergence and post-emergence control of listed broadleaf weeds, applied pre-transplant for annual artichokes, and post-transplant for perennial artichokes. <b>A229.02</b> also may be used for layby applications.</p> <p>For pre-transplant applications for annual artichokes, apply 8 to 32 fluid ounces of <b>A229.02</b> (0.25 – 1.0 lb ai) per acre, at least two days before transplanting.</p> <p>For post-plant applications over the top of perennial artichokes after planting of crowns, apply 8 to 32 fluid ounces of <b>A229.02</b> (0.25 – 1.0 lb ai) per acre, within two days after crown planting and before irrigation.</p> <p>Ground application is advised. For broadcast applications, a minimum spray volume of 40 gallons of water per acre is advised. For aerial application, use a minimum of 10 gallons of water per acre.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Higher rates in this rate range will provide a longer interval of weed control, but may increase the potential for crop injury. During cold, wet growing conditions, the crop is more susceptible to crop injury. In these situations, the lower end of the rate range must be considered. <b>DO NOT</b> use if the risk of crop injury under these conditions is considered unacceptable. Control may be reduced if thorough soil coverage is not achieved.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Including layby applications, <b>DO NOT</b> apply more than 2.0 lb active ingredient (64 fluid ounces) oxyfluorfen per acre per year</li> <li>• <b>DO NOT</b> apply more than 1.0 lb active ingredient (32 fluid ounces of <b>A229.02</b>.) oxyfluorfen per acre per application.</li> <li>• <b>DO NOT</b> apply within 90 days of harvest.</li> <li>• <b>Retreatment Interval:</b> 8 weeks</li> </ul>		

#### DOSAGE AND TIMING

The rates listed on this label are broadcast rates. For banded applications, reduce these rates proportionally to the band width.

**Key Weeds Controlled:**

Preemergence	Postemergence
cheeseweed (malva) groundsel, common lambquarters, common mustard, common yellow oxalis (bermuda buttercup)* shepherdspurse sowthistle, annual	cheeseweed (malva) groundsel, common mustard, common yellow nettle, burning oxalis (bermuda buttercup) shepherdspurse sowthistle, annual

\*Suppression

**Crop-Specific Use Restrictions**

**Artichoke (Globe)**

**Post-Directed Spray Application**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 3 (1.0 – 1.5 lb ai)	<b>Application Method:</b> Apply as a directed spray to the soil surface between the rows and at the base of artichoke plants in a minimum spray volume of 40 gallons per acre. <b>Timing to Crop:</b> Apply after completion of ditching operations. Separate applications of up to 2 pt/acre may be made 8 to 10 weeks apart or a single application of up to 3 pt/acre may be made. <b>Timing to Weeds:</b> Preemergence up to 8 leaf stage.

**Precautions:**

- Application of **A229.02** to artichoke plantings must be delayed a minimum of 60 days after cutting back or transplanting.

**Restrictions:**

- **DO NOT** apply over-the-top. Contact with direct spray or drift will cause injury to artichoke fronds or severe injury to buds or flowers.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per application.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per year.
- **DO NOT** make more than 2 application per acre per year when using reduced application rates.
- **Retreatment Interval:** 8 weeks
- **Preharvest Interval: DO NOT** apply within 5 days of harvest.

**Key Weeds Controlled:**

Preemergence	Postemergence
cheeseweed (malva) groundsel, common lambquarters, common mustard, common yellow oxalis (bermuda buttercup)* shepherdspurse sowthistle, annual	cheeseweed (malva) groundsel, common mustard, common yellow nettle, burning oxalis (bermuda buttercup) shepherdspurse sowthistle, annual

\*Suppression

## Broccoli / Cabbage / Cauliflower

### Pre-Transplant (Preplant) Application for Preemergence Broadleaf Weed Control

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	0.5 – 1 (0.25 – 0.5 lb ai)	<p><b>Pre-Transplant Application Only:</b> Apply broadcast to final seedbed prior to transplanting. Use lower rate in the rate range on coarse-textured soils with less than 1% organic matter. Use the highest rate in the rate range on medium- to fine-textured soils or soils containing greater than 1% organic matter.</p> <p>Transplanting must be accomplished with minimal soil disturbance and soil left undisturbed during the time weed control is desired.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Pre-transplant applications may result in initial, but temporary, crop injury (leaf cupping or crinkling) and is enhanced if crop leaves come in direct contact with treated soil. Crop will rapidly outgrow this condition and develop normally. Severe crop injury may result if transplants are under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides or storage conditions. The use of transplants less than 5 weeks old or use of extremely succulent transplants grown in containers less than 1 inch square may increase the severity of crop injury. Hardening off, increasing the age of transplants or increasing the size of the rooting containers will lessen the possibility and/or severity of potential crop injury.</li> <li>• <b>A229.02</b> will assist in early season annual grass control, however, a herbicide program for preemergence or postemergence control of annual grasses is advised.</li> <li>• Applications to muck soils may result in partial weed control or suppression.</li> <li>• Furrow and drip irrigation immediately after transplanting and under high temperatures can result in increased crop injury. Sprinkler irrigation is advised during early establishment of transplants. If these conditions cannot be met, <b>A229.02</b> must not be used.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) broadcast per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per treated acre per year.</li> <li>• <b>DO NOT</b> make more than 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply <b>A229.02</b> if an acetanilide herbicide including MetalliS (s-metolachlor, 91234-52) has been applied to the field during the current growing season as severe crop injury may occur.</li> <li>• <b>DO NOT</b> apply <b>A229.02</b> as a preemergence treatment to direct-seeded broccoli, cabbage or cauliflower.</li> <li>• <b>DO NOT</b> apply <b>A229.02</b> post-transplant or over-the-top of broccoli, cabbage or cauliflower.</li> </ul>		

#### Key Weeds Controlled:

Preemergence
carpetweed pigweed, redroot purslane, common smartweed, Pennsylvania



to the treated leaves with new leaves emerging undamaged. Delay in crop development and/or maturity and yield reduction can result under these conditions. **DO NOT** use **A229.02** on plants that are weakened or are under stress due to temperature, disease, fertilizer, soil salts, nematodes, insects, pesticides, drought, excessive moisture, flooding, or soil crusting.

**Method of Application**

**Weeds Controlled or Suppressed Postemergence**

**A229.02** provides postemergence control/suppression of the following weeds when used at specified dosages:

<b>Common Name</b>	<b>Scientific Name</b>
Cheeseweed (Malva)	<i>Malva parviflora</i>
Nettle, Burning	<i>Urtica urens</i>
Nightshade, Black	<i>Solanum nigrum</i>
Pigweed, Redroot	<i>Amaranthus retroflex us</i>
Purslane, Common	<i>Portulaca oleracea</i>
Shepherdspurse	<i>Capselfa bursa-pastoris</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>

**Cultural Considerations**

For best weed control results, apply **A229.02** to young (1-4 leaf), actively growing weeds.

**Broccoli/Cauliflower**

**California Only**

**Application for Postemergence Use**

Weed Control	Rate (pt/acre)	Specific Use Directions
Postemergence	0.25 – 0.375 (0.125 – 0.188 lb ai)	Apply <b>A229.02</b> as a broadcast or directed spray for the postemergence suppression/control of susceptible broadleaf weed species in direct-seeded or transplanted broccoli and cauliflower.
Directed Spray	0.25 – 0.5 (0.125 – 0.25 lb ai)	Apply <b>A229.02</b> as a broadcast postemergence application at the rate of 4 to 6 fl oz per acre (0.125- 0.188 lb ai). <b>A229.02</b> can also be applied as a directed application at a rate of 4 to 8 fl oz per acre (0.125-0.25 lb ai). Directed applications are those where spray mixtures are applied in such a way as to minimize contact to crop leaves, directing the spray toward the soil at the base of the crop.  For direct-seeded crops, apply when the crop reaches a minimum of four true leaves. For transplanted crops, apply after a minimum of two weeks after planting.

**Precautions:**

- Apply only with ground equipment in a spray volume of 20 gallons or more of water per acre. Increase the spray volume to ensure complete and uniform coverage as weed height and density increases. Use a low-pressure sprayer equipped with flat fan nozzles operated at the manufacturer's specified pressure.

**Crop-Specific Restrictions:**

- For direct-seeded crops, **DO NOT** apply more than 8 fl oz per acre (0.25 lb ai) per crop as a post emergence treatment.
- For transplanted crops, **DO NOT** apply more than 8 fl oz per acre (0.25 lb ai) per crop as a post-transplant treatment per year.
- If a pre-transplant (preplant) treatment has previously been made, the combination of pre- plus post-transplant treatments must not exceed 16 fl oz per acre per year (0.5 lb ai).
- **DO NOT** make more than 2 application per crop per year.
- **DO NOT** add any adjuvant or liquid fertilizer to the spray mixture.
- For postemergence use in broccoli and cauliflower, **DO NOT** mix **A229.02** with adjuvants (oils, surfactants), liquid fertilizer, or pesticides.
- **DO NOT** apply within 35 days of harvest.
- **DO NOT** apply when weather conditions favor drift. Avoid drift to all nontarget areas. **A229.02** is phytotoxic to susceptible plant foliage.

**Product Information****Crop Resistance Information**

Broccoli and cauliflower are tolerant to postemergence applications of **A229.02**; however, under certain conditions, **A229.02** can cause severe crop injury. Application to crops grown under very mild (cool, cloudy) conditions can produce leaf cupping, crinkling, stunting, or necrotic lesions. When injury occurs, it is usually limited to the treated leaves with new leaves emerging undamaged. Delay in crop development and/or maturity and yield reduction can result under these conditions. **DO NOT** use **A229.02** on plants that are weakened or are under stress due to temperature, disease, fertilizer, soil salts, nematodes, insects, pesticides, drought, excessive moisture, flooding, or soil crusting.

**Weeds Controlled or Suppressed Postemergence**

**A229.02** provides postemergence control/suppression of the following weeds when used at specified dosages.

**Common Name**

Cheeseweed (Malva)

Nettle, Burning

Nightshade, Black

Pigweed, Redroot

Purslane, Common

Shepherdspurse

Sowthistle, Annual

**Scientific Name***Malva parviflora**Urtica urens**Solanum nigrum**Amaranthus retroflexus**Portulaca oleracea**Capsella bursa-pastoris**Sonchus**oleraceus***Cultural Considerations**

For best weed control results, apply when **A229.02** to young (1-4 leaf), actively growing weeds.

**Cacao (Bearing and Nonbearing)  
(For Use Only in Hawaii)**

**A229.02** may be applied as a pre-transplant treatment or to established or recently transplanted cacao.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	1 – 4 (0.5 – 2.0 lb ai)	<b>Pre-transplant Application:</b> Up to 2 pints per broadcast acre may be applied as a pre-transplant application. <b>Application to Established Plantings:</b> In established plantings, including recently transplanted cacao plants, apply as a directed spray to the orchard floor. Use higher rates in rate range and increase spray volume to control dense growth of existing weeds or for extended residual preemergence weed control.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li><b>A229.02</b> must be applied to only healthy growing trees/transplants of suitable size to allow directed sprays. Avoid spray contact with foliage.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li><b>DO NOT</b> apply preplant or preemergence to direct-seeded cacao.</li> <li><b>DO NOT</b> apply more than 4 pints of <b>A229.02</b> (2.0 lb ai) per acre per application .</li> <li><b>DO NOT</b> apply more than 12 pints of <b>A229.02</b> (6.0 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 4 application per acre per year when using reduced application rates.</li> <li><b>Retreatment Interval:</b> 10 weeks</li> <li><b>Preharvest Interval:</b> <b>DO NOT</b> apply <b>A229.02</b> within 1 day of harvest.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
ageratum buttonweed crotalaria purslane, common spurge, garden	purslane, common spurge, garden

**Citrus (Nonbearing)**

**Citrus, including Calamondin, Chironja, Citrus Citron, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Pummelo, Satsuma Mandarin, Sour Orange, Sweet Orange, Tangelo, Tangerine, Tangor**

**A229.02** may be applied only in non-bearing citrus orchards. Apply only as a directed spray to the orchard floor avoiding contact with citrus foliage.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	3 (1.5 lb ai)	<b>Preemergence Weed Control:</b> Up to 3 pt/acre may be applied for residual preemergence weed control. <b>Postemergence Weed Control:</b> The 3 pint/acre rate will control weeds up to 4 inches tall. Weeds greater than 4-leaf or 4 inches tall may be partially controlled. Use sufficient spray volume for complete and uniform coverage of weeds. Increase the spray volume with increased weed height and density to ensure complete coverage.
Postemergence	1 – 3 (0.5 – 1.5 lb ai)	



**Tank Mixing:** Refer to Mixing Directions section for Tank Mixing Precautions.

- **Preemergence Use:** For residual control of grass weeds, **A229.02** may be tank mixed with grass herbicides labeled for use in citrus.
- **Postemergence Use:** For broader spectrum postemergence control of emerged grass and broadleaf weeds, **A229.02** may be tank mixed with paraquat or glyphosate.

**Crop-Specific Restrictions:**

- Apply **A229.02** only to nonbearing citrus (trees that will not bear fruit for one year).
- **DO NOT** apply during periods of new citrus foliage growth. Applications must be made after foliage has fully expanded and hardened off. Avoid direct spray contact with citrus foliage.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per application.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per year.
- **DO NOT** make more than 3 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 8 weeks
- **PHI:** 365 days

(Arizona and California)		(Florida, Louisiana and Texas)	
Preemergence	Postemergence	Preemergence	Postemergence
burclover cheeseweed (malva) fiddleneck, coast filaree, broadleaf filaree, redstem filaree, whitestem groundsel, common henbit knotweed, prostrate lambquarters, common lettuce, prickly pigweed, red root purslane, common redmaids rocket, London shepherdspurse sowthistle, annual spurge, prostrate spurge, spotted	cheeseweed (malva) fiddleneck, coast filaree, broadleaf* filaree, redstem* filaree, whitestem* groundsel, common henbit minerslettuce nettle, burning pigweed, red root redmaids shepherdspurse sowthistle, annual	cudweed, narrowleaf eveningprimrose, cutleaf** groundcherry, cutleaf lambquarters, common nightshade, American black nightshade, black pepperweed, Virginia pigweed, red root poinsettia, wild pusley, Florida sida, prickly (teaweed) smartweed, Pennsylvania sowthistle, annual spurge, prostrate spurge, spotted	balsamapple cudweed, narrowleaf*** eveningprimrose, cutleaf** groundcherry, cutleaf groundcherry, Wright lambquarters, common morningglory, annual nightshade, American black nightshade, black pepperweed, Virginia pigweed, redroot poinsettia, wild purslane, common pusley, Florida sida, prickly (teaweed) smartweed, Pennsylvania sowthistle, annual

\***A229.02** at the 3 pt/acre will provide control of filaree and other weeds up to 4-inch stage. Applications to weeds beyond the 4-inch stage may result in partial control.

\*\*Highest rate and/or multiple applications may be required for acceptable control.

\*\*\*Maximum 0.5-inch diameter.

**Clary Sage**

**Clary Sage (*Salvia sclarea*) Grown and Utilized in the Essence Industry  
(For Use Only in North Carolina)**

Weed Control	Rate (pt/acre)	Specific Use Directions
Postemergence	0.25 – 0.5 (0.125 – 0.25 lb ai)	<b>A229.02</b> may be applied to established clary sage for control of henbit ( <i>Lamium amplexicaule</i> ) and other winter annual broadleaf weeds during the winter and spring season.  Apply shortly after the first flush of henbit is in the 2- to 4-

		leaf stage of growth. Additional applications may be required to control subsequent weed flushes through the spring season. After treatment, henbit will stop growing and slowly die. Increase the spray volume if weed growth is dense.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Clary sage may respond to the topical application of this product with some marginal leaf burn, but recovery is rapid.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 0.5 pints of <b>A229.02</b> (0.25 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 6 applications per acre per year.</li> <li><b>Retreatment Interval:</b> 8 weeks</li> <li><b>PHI:</b> 5 days,</li> </ul>		

**Coffee (Bearing and Nonbearing)  
(For Use Only in Hawaii)**

**A229.02** may be applied to established coffee, recently transplanted coffee, or as a pre-transplant treatment. In established non-dormant coffee, apply as a directed spray avoiding contact with crop foliage. Newly established transplants must be healthy and well established and of sufficient size to allow use of directed sprays without contacting crop foliage.

**A229.02** may be applied over-the-top of dormant coffee transplants. Transplants are considered to be dormant when active terminal growth has ceased and terminal buds have formed. Application over-the top of coffee plants after buds start to swell (a sign that new growth has resumed) may result in crop injury.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	1 – 4 (0.5 – 2.0 lb ai)	<p><b>Preemergence Weed Control:</b></p> <ul style="list-style-type: none"> <li>Apply as a directed spray to the orchard floor beneath established coffee plants.</li> <li>Up to 2 pints (1 lb ai) per acre may be applied as a pre-transplant application prior to transplanting coffee plants.</li> </ul> <p><b>Postemergence Weed Control:</b> Increase the spray volume when weed growth is dense or trash is present; or use a higher rate within the rate range for extended residual preemergence weed control.</p>
<p><b>Tank Mixing:</b> Refer to Mixing Directions section for Tank Mixing Precautions. Apply tank mixes only as directed sprays.</p> <p>It is the pesticide user’s responsibility to ensure that all products are registered for 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.</p>		

**Crop-Specific Restrictions:**

- To prevent foliar injury, **DO NOT** apply during periods of rapid new growth or allow spray or drift to contact actively growing foliage.
- **DO NOT** apply preplant or preemergence to direct-seeded coffee.
- **DO NOT** apply more than 4 pints of **A229.02** (2.0 lb ai) per broadcast acre per application.
- **DO NOT** apply more than 12 pints of **A229.02** (6.0 lb ai) per broadcast acre per year.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 10 weeks
- **Preharvest Interval: DO NOT** apply **A229.02** within one (1) day of harvest.

**Key Weeds Controlled:**

Preemergence	Postemergence
ageratum buttonweed crotalaria purslane, common spurge, garden	purslane, common spurge, garden

**Conifer Seedbeds, Transplants, Container Stock and Selected Field-Grown Deciduous Trees**

**Key Weeds Controlled:** When **A229.02** is applied preemergence or postemergence at specified dosages and weed stages.

Barnyardgrass <sup>1</sup>	mustard, blue
bedstraw, catchweed	mustard, tumble
bittercress, lesser	mustard, wild
bluegrass, annual <sup>1</sup>	nettle, burning
buckwheat, wild	nightshade, black
burclover	nightshade, hairy
carpetweed	oats, wild
clover, red <sup>1</sup>	orach, red
clover, white <sup>1</sup>	pepperweed, yellowflower
cocklebur, common	pigweed, prostrate
crabgrass, large <sup>1</sup>	pigweed, red root
fiddleneck, coast <sup>1</sup>	pimpernel, scarlet
filaree, broadleaf	purslane, common
filaree, redstem	redmaids
fireweed (from seed)	rocket, London
flixweed	sandspurry, red
foxtail, giant <sup>1</sup>	shepherdspurse <sup>1</sup>
goosegrass <sup>1</sup>	sida, prickly
groundcherry, cutleaf	smartweed, Pennsylvania
groundcherry, Wright	sorrel, red (from seed)
groundsel, common	sowthistle, annual
henbit	speedwell, birdseye
jimsonweed	spurge, prostrate <sup>2</sup>
knotweed, prostrate	spurge, spotted <sup>2</sup>
ladythumb	spurry, corn
lambsquarters, common	tansymustard
lettuce, prickly	thistle, bull <sup>2</sup>
mallow, little	thistle, Russian
mayweed	velvetleaf

minerslettuce	witchgrass
morningglory, ivyleaf <sup>1</sup>	woodsorrel, yellow <sup>2</sup>
morningglory, tall <sup>1</sup>	

<sup>1</sup>Highest rate and/or multiple applications may be required for acceptable control.

<sup>2</sup>Preemergence control only.

### Conifer Seedbeds

**Agricultural Use Requirements: 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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

**A229.02** provides both postemergence and residual preemergence control of many broadleaf weeds and annual grass species.

Seeded conifers are tolerant to preemergence and postemergence applications of **A229.02**. For weed control during the establishment of conifer seedlings, **A229.02** can be applied after seeding of conifers, but prior to emergence. For weed control in emerged conifers, **A229.02** may be applied over-the-top, but application must be delayed a minimum of 5 weeks after seedling emergence. If application is made during cool, cloudy weather, make certain that seedlings have hardened-off prior to spraying.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	0.5 – 2 (0.25 – 1.0 lb ai)	<b>Application after planting, but prior to emergence of conifer seedlings:</b> Where grass weeds are present, apply 1 to 2 pints of <b>A229.02</b> per acre. In known areas of high weed competition, apply 2 pints of <b>A229.02</b> per acre. Broadcast to beds and irrigate with ½ to ¾ inch of sprinkler irrigation before weed emergence. <b>A229.02</b> is most effective on annual grasses when applied preemergence.
Postemergence	0.5 – 1 (0.25 - 0.5 lb ai)	<b>Application after emergence of conifer seedlings:</b> Application must be made to seedling weeds less than 4 inches in height (seedling grasses not exceeding the 2-leaf stage). Depending on subsequent weed flushes, multiple applications may be necessary to achieve season-long weed control.

**Chemigation:** **A229.02** may be applied at labeled rates through sprinkler irrigation systems. For center pivot irrigation systems, apply the specified dosage of **A229.02** per acre metered at a continuous uniform rate during the entire irrigation period, otherwise meter **A229.02** at a continuous uniform rate during the middle 1/3 of the irrigation period. When applying by sprinkler irrigation, follow directions given in the Chemigation Instructions section of this label.

**Precautions:**

- Occasionally spotting, crinkling, or flecking may appear on leaves of conifers. Leaves that receive direct spray or drift may be injured, but typically outgrow this condition rapidly and develop normally.
- Apply **A229.02** only to healthy conifer stock.

- **DO NOT** apply **A229.02** in an enclosed greenhouse structure as injury to plant foliage may result.

**Crop-Specific Restrictions:**

- **DO NOT** apply more than 2 pints of **A229.02** (1.0 lb ai) per acre per application.
- **DO NOT** apply more than 4 pints of **A229.02** (2.0 lb ai) per acre per year.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 8 weeks
- **DO NOT** store or transport treated container stock in an enclosed structure until completion of 4 irrigations (minimum 21 days) as injury to non-labeled plants may occur.
- **DO NOT** apply **A229.02** to conifers that are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously-applied pesticides, soil insects, or winter injury, as severe injury may result.
- **DO NOT** graze or harvest livestock forage from treated areas.

**A229.02 may be applied to conifer seedbeds of the following species:**

**Important:** When applied as directed, the conifer species listed on this label have shown resistance to **A229.02**. It is impossible, however, to evaluate this product on all varieties, biotypes and cultivars of listed species under all possible growing conditions. Until familiar with results under local growing conditions, the user must exercise reasonable judgment and caution with this product. Limit application of this product to a few plants in a small area to determine plant resistance and extent of injury if such occurs, prior to initiating large-scale applications.

Douglas Fir	<i>Pseudotsuga menziesii</i>
Fir	Fraser ( <i>Abies fraseri</i> ) Grand ( <i>Abies grandis</i> ) Noble ( <i>Abies procera</i> )
Hemlock	Eastern hemlock ( <i>Tsuga canadensis</i> )
Pine	Austrian ( <i>Pinus nigra</i> ) Eastern White ( <i>Pinus strobus</i> ) Himalayan ( <i>Pinus wallichiana</i> ) Jack ( <i>Pinus banksiana</i> ) Loblolly ( <i>Pinus taeda</i> ) Lodgepole ( <i>Pinus contorta</i> ) Longleaf ( <i>Pinus palustris</i> ) Monterey ( <i>Pinus radiata</i> ) Mugo ( <i>Pinus mugo</i> ) Ponderosa ( <i>Pinus ponderosa</i> ) Scotch ( <i>Pinus sylvestris</i> ) Shortleaf ( <i>Pinus echinata</i> ) Slash ( <i>Pinus elliottii</i> ) Virginia ( <i>Pinus virginiana</i> )
Spruce	Blue ( <i>Picea pungens</i> ) Dwarf ( <i>Picea glauca Conica</i> ) Alberta ( <i>Picea abies</i> ) Norway ( <i>Picea sitchensis</i> )

### Conifer Transplants and Container Stock (Includes 2-0 Seedling and Christmas Tree Plantings)

**Agricultural Use Requirements: 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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Many container-grown conifers and conifer transplants are resistant to preemergence and postemergence applications of **A229.02**. Applied postemergence, **A229.02** provides postemergence control of emerged weeds and preemergence residual control of many broadleaf weeds and grasses (see Key Weeds Controlled) at the beginning of this section.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 4 (1.0 – 2.0 lb ai )	<b>Transplanted and Container Grown Conifers:</b> For best results, preemergence applications must be made immediately after transplanting seedlings or to weed-free container stock. Postemergence applications must be made to weeds less than 4 inches in height. Two applications may be necessary, in fall-transplanted conifer fields, for season-long weed control. The addition of a non-ionic surfactant (0.25% v/v) labeled for application to growing crops, enhances the activity of <b>A229.02</b> on emerged weeds.
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> make over-the-top applications during periods of active conifer growth. Apply only before bud break or after new terminal growth has hardened off.</li> <li>• <b>DO NOT</b> apply more than 4 pints of <b>A229.02</b> (2.0 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 8 pints of <b>A229.02</b> (4.0 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 8 weeks</li> <li>• <b>DO NOT</b> graze or harvest livestock forage from treated areas</li> </ul>		

In addition to those conifer species listed under the Conifer Seedbed section, the following conifer species have been shown to be tolerant to **A229.02**:

<b>Arborvitae</b>	<i>Thuja occidentalis</i> <i>Thuja orientalis</i>
<b>Juniper</b>	<i>Juniperus chinensis</i> <i>Juniperus horizontalis</i> <i>Juniperus procumbens</i> <i>Juniperus sabina</i> <i>Juniperus scopulorum</i>
<b>Red cedar</b>	<i>Juniperus virginiana</i>
<b>Western Hemlock</b>	<i>Tsuga heterophylla</i>
<b>Yew</b>	<i>Taxus</i> spp.

### Selected Field-Grown Deciduous Trees

Listed field-grown deciduous trees are tolerant only to directed spray applications of **A229.02**. **A229.02** provides both preemergence and postemergence control of listed broadleaf weeds and grasses.

**Timing to Crop:** Apply **A229.02** to established deciduous trees or after transplanting. For optimum weed control, applications must be made prior to weed germination. Apply only as a directed spray to soil beneath the trees.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Early postemergence	1 – 3 (0.5 – 1.5 lb ai)	<b>A229.02</b> may be applied to established deciduous trees or after transplanting as a single or split application. Apply as a directed spray to the soil surface. Use spray shields to reduce exposure of foliage and bark. The addition of a non-ionic surfactant (0.25% v/v) labeled for application to growing crops, will enhance herbicidal activity on emerged weeds.  <b>Spot Application:</b> Spot treatments at specified rates may be used to control localized weed infestations. See use directions for Spot Application in the APPLICATION METHODS AND CULTURAL PRACTICES section.
<b>Tank Mixing:</b> For broader spectrum control, <b>A229.02</b> may be tank mixed with other preemergence or postemergence herbicides registered for this use in deciduous trees. Refer to MIXING DIRECTIONS section for Tank Mixing Precautions.		
<b>Precautions:</b> <ul style="list-style-type: none"> <li>For maximum crop safety, directed applications must be made prior to budbreak in the spring or after trees have initiated dormancy in the fall. Avoid contact of spray or drift with foliage or stems with green bark. Application after bud swell may result in crop injury. If a non-dormant application is required due to weed competition, apply only after foliage has fully expanded and hardened off. Use only directed sprays and spray shields to prevent spray contact with stems with green bark or foliage.</li> </ul>		
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li><b>DO NOT</b> apply <b>A229.02</b> to trees that have been weakened or are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously-applied pesticides, insects, or winter injury as severe injury may result.</li> <li><b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 3 applications per acre per year when using reduced application rates.</li> <li><b>Retreatment Interval:</b> 8 weeks</li> <li><b>DO NOT</b> apply to bearing tree fruit, nut and vine crops. For selected bearing tree fruit, nut and vine crops, refer to Tree Fruit/Nut/Vine section of this label for use directions.</li> <li><b>DO NOT</b> graze or feed livestock forage cut from areas treated with <b>A229.02</b>.</li> </ul>		

**A229.02** may be applied to the following deciduous tree species:

Almond <sup>2</sup>	<i>Prunus</i> spp.
Apple <sup>2</sup>	<i>Malus X domestica</i>
Apricot <sup>2</sup>	<i>Prunus</i> spp.
Ash, Green Ash, White	<i>Fraxinus pennsylvanica</i> <i>Fraxinus americana</i>

Birch, River	<i>Betula nigra</i>
Cherry <sup>2</sup>	<i>Prunus</i> spp.
Chestnut <sup>2</sup>	<i>Castanea</i> spp.
Crabapple <sup>2</sup>	<i>Malus</i> spp.
Cottonwood	<i>Populus</i> spp.
Dogwood	<i>Cornus florida</i>
Eucalyptus	<i>Eucalyptus viminalis</i> <i>Eucalyptus pulverulenta</i> <i>Eucalyptus camaldulensis</i>
Filbert <sup>2</sup>	<i>Corylus</i> spp.
Lilac	<i>Syringa vulgaris</i>
Locust, Black	<i>Robinia pseudoacacia</i>
Maple, Black <sup>1</sup>	<i>Acer nigrum</i>
Maple, Red <sup>1</sup>	<i>Acer rubrum</i>
Maple, Sugar <sup>1</sup>	<i>Acer saccharum</i>
Myrtle, Crepe	<i>Lagerstroemia indica</i>
Nectarine <sup>2</sup>	<i>Prunus</i> spp.
Nut, Hickory <sup>2</sup>	<i>Carya</i> spp.
Nut, Macadamia	<i>Macadamia ternifolia</i>
Oak, Chestnut	<i>Quercus prinus</i>
Oak, Cherrybark	<i>Quercus pagoda</i>
Oak, Nuttall	<i>Quercus nuttallii</i>
Oak, Pin	<i>Quercus palustris</i>
Oak, Red	<i>Quercus rubra</i>
Oak, Water	<i>Quercus nigra</i>
Oak, Willow	<i>Quercus phellos</i>
Olive, Russian	<i>Elaeagnus angustifolia</i>
Poplar	<i>Populus</i> spp.
Poplar, Tulip	<i>Liriodendron tulipifera</i>
Peach <sup>2</sup>	<i>Prunus persica</i>
Pear <sup>2</sup>	<i>Pyrus</i> spp.
Pecan <sup>2</sup>	<i>Carya</i> spp.
Pistachio <sup>2</sup>	<i>Pistacia vera</i>
Plum <sup>2</sup>	<i>Prunus</i> spp.
Prune <sup>2</sup>	<i>Prunus</i> spp.
Redbud	<i>Cercis canadensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus occidentalis</i>
Walnut, Black <sup>2</sup>	<i>Juglans nigra</i>

<sup>1</sup>DO NOT apply to maple trees used for production of maple sap or maple syrup.

<sup>2</sup>Apply only to nonbearing trees. For bearing tree fruit, nut and vine crops, refer to specific use directions in the Tree fruit/Nut/Vine section of this label.

## Corn

### FOR USE ONLY ON FIELD CORN IN CONJUNCTION WITH THE USDA WITCHWEED ERADICATION PROGRAM IN NORTH CAROLINA AND SOUTH CAROLINA

Apply **A229.02** only as a directed spray from May through August for preemergence and postemergence control of witchweed (*Striga asiatica*). Corn must be a minimum of 24 inches tall. Examine witchweed infested fields during the early part of the growing season to determine uniformity of corn stand and grass weed pressure. If necessary, cultivate weed-infested fields prior to initial application of **A229.02** to allow for optimum soil coverage during the initial application. Fields treated with **A229.02** must be inspected regularly for any breakthrough of witchweed. If



breakthrough occurs, a second application must be made as soon as possible after appearance of witchweed. Repeat treatments must occur prior to bloom stage to prevent seed set.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1 – 1.5 (0.5 – 0.75 lb ai)	<b>Initial Application:</b> Apply as a directed spray over the entire row surface at the rate of 1 pint (0.5 lb ai) per acre. Use up to 3 pints (1.5 lb ai) per acre in areas of heavy witchweed infestation. Use a minimum spray volume of 20 gallons per acre and a non-ionic surfactant at the rate of 2 pints (1 lb ai) per 100 gallons of spray.
Postemergence	0.5 – 1 (0.25 – 0.5 lb ai)	<b>Repeat Applications:</b> In case of witchweed breakthrough a repeat application may be made at 0.5 to 1 pints (0.25 – 0.5 lb ai) per acre.
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> spray over the top of the corn, as this may result in severe corn injury. Spray must contact only the lower 3 to 8 inches of the corn stalk and any leaves in this zone. Spray droplets contacting the lower leaves will cause necrotic spotting or streaking of sprayed tissue.</li> <li>• <b>DO NOT</b> apply more than 1.5 pints of <b>A229.02</b> (0.75 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2.5 pints of <b>A229.02</b> (1.25 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 3 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment interval:</b> 10 weeks</li> <li>• <b>DO NOT</b> apply any apply within 60 days of harvest.</li> <li>• <b>DO NOT</b> use corn plants from a treated field for green chop, ensilage, forage, or fodder.</li> </ul>		

## Cotton

**Application Methods and Equipment:** **A229.02** may be applied as a post-direct spray to cotton a minimum of 6 to 8 inches tall. Care must be exercised to avoid spray contact with the cotton leaves. Use rigid precision ground spray equipment and spray shields to prevent spray contact with cotton foliage. Use branch lifters or shields, as necessary, to avoid contact of directed sprays with cotton plant.

Accurate placement of spray nozzles is essential for uniform coverage of weeds and to minimize injury to cotton plants. Use a minimum broadcast spray volume of 20 gallons per acre and operate the sprayer at the minimum spray pressure listed by the spray nozzle manufacturer. **A229.02** may be applied as a post-directed spray with only 2 flat fan nozzles per row (1 nozzle on each side of the row). For optimum coverage, use 4 flat fan nozzles per row (2 nozzles on each side of the row). The 2 forward nozzles must point forward and downward while the rear nozzles must point to the rear and downward. With either sprayer setup, nozzles must be carefully adjusted to cover the weed foliage with minimum contact to cotton plants. **A229.02** may also be applied as a banded application. **DO NOT use hollow cone nozzles.**

**Tank Mixing:** For control of additional broadleaf and grass weeds, **A229.02** may be applied as a postemergence directed spray in tank mix combination with other herbicides registered for postemergence use in cotton (see Tank Mixing Precautions under Mixing Directions).

Weed Control	Rate (pt/acre)	Specific Use Directions
Postemergence	0.5 – 1 (0.25 – 0.5 lb ai)	Apply as a post-directed spray. For optimum control, use the 1 pint (0.5 lb ai) per acre rate on actively growing weed seedlings with no more than 4 true leaves (not counting cotyledon leaves). Effective control of succulent weeds at

		<p>the 2- to 3-leaf stage can usually be obtained at the 0.5 pint (0.25 lb ai) per acre rate. See Mixing Directions for surfactant specifications.</p> <p>Where available, irrigation may be applied prior to application of <b>A229.02</b> to encourage maximum weed emergence. Irrigation following application will improve preemergence activity of <b>A229.02</b> against nightshade and groundcherry species.</p>
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**Precautions:**

- Exercise care to avoid spray contact with cotton leaves. Leaves accidentally sprayed will exhibit necrotic (dead) spots and may be dropped from the plant. Crop injury may be enhanced if application is made when excessive soil moisture is present or rainfall occurs immediately after application; however, cotton will outgrow this condition and develop normally.

**Crop-Specific Restrictions:**

- **DO NOT** apply to cotton less than 6 inches tall or severe crop injury will result.
- **Western Cotton (AZ and CA):**
  - **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per application.
  - **DO NOT** apply more than 2 pints of **A229.02** (1.0 lb ai) per broadcast acre per year.
  - **DO NOT** make more than 2 application per acre per year.
  - **Retreatment Interval:** 10 weeks
  - **DO NOT** apply within 75 days of harvest.
- **Southern Cotton (All other states):**
  - **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per application.
  - **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per year .
  - **DO NOT** make more than 2 application per acre per year when using reduced application rates.
  - **Retreatment interval:** 10 weeks
  - **DO NOT** apply within 90 days of harvest.

**Key Weeds Controlled:**

Postemergence	
cocklebur, common	nightshade, black
croton, tropic	nightshade, hairy
groundcherry, cutleaf	pigweed, redroot
groundcherry, Wright	poinsettia, wild <sup>1</sup>
jimsonweed	purslane, common
lambsquarters, common	sesbania, hemp
morningglory, annual (up to 6 leaf)	sicklepod <sup>2</sup>
nightshade, American	sida, prickly (teaweed) <sup>1</sup>
black	smartweed, pennsylvania
	velvetleaf

<sup>1</sup>Multiple applications may be required for acceptable control.

<sup>2</sup>Post-direct applications of **A229.02** will control or suppress seedlings not exceeding the one true leaf stage.

**Cottonwood**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 3 (1.0 - 1.5 lb ai)	<b>A229.02</b> may be applied as a single or split application. Apply as a directed spray to soil at the base of cottonwood trees.

		<p>Use the higher rate in the rate range for extended preemergence weed control or for postemergence control of weeds up to the 6 leaf stage.</p> <p>The addition of a non-ionic surfactant at 2 pints per 100 gallons of spray will enhance the postemergence activity of <b>A229.02</b> on emerged weeds.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Apply <b>A229.02</b> immediately after transplant only to dormant healthy cottonwood stock.</li> <li>•</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• In established stands, <b>DO NOT</b> allow sprays of <b>A229.02</b> to contact cottonwood foliage. In newly established cottonwood plantings, use spray shields, if necessary, to prevent exposure of green bark and foliage.</li> <li>• <b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per application .</li> <li>• <b>DO NOT</b> apply more than 9 pints of <b>A229.02</b> (4.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 8 weeks</li> </ul>		

**Key Weeds Controlled:**

groundsel, common knotweed, prostrate lambsquarters, common	mustard, hedge shepherdspurse smartweed, Pennsylvania
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**Eucalyptus**

Apply **A229.02** for preemergence and postemergence control of listed broadleaf weeds in established eucalyptus plantings.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 3 (1.0 - 1.5 lb ai)	<p><b>Directed Spray:</b> <b>A229.02</b> may be applied as a single or split application. Apply as a directed spray to soil at the base of eucalyptus trees.</p> <p>Use the higher rate in the rate range for extended preemergence weed control or for postemergence control of weeds up to the 6 leaf stage.</p> <p>The addition of a non-ionic surfactant at the rate of 2 pints per 100 gallons of spray will enhance the postemergence activity of <b>A229.02</b> on emerged weeds.</p> <p><b>Over-the-Top Application:</b> In new plantings, apply <b>A229.02</b> just before or immediately after transplanting eucalyptus seedlings that are in a dormant condition (i.e., leaves may be present, but terminal growth has hardened off and terminal buds have formed). In established plantings, <b>A229.02</b> may be applied as an over-the-top spray when plants are in a dormant condition.</p>

**Precautions:**

- At transplant, apply **A229.02** only to "dormant" healthy eucalyptus stock. In established plantings, use spray shields, if needed, to prevent exposure of foliage and bark of small and/or actively growing plants.
- To avoid phytotoxicity, make over-the-top applications only to eucalyptus trees in a dormant condition. **DO NOT** make over-the-top applications after bud break and resumption of active growth.

**Crop-Specific Restrictions:**

- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per application.
- **DO NOT** apply more than 9 pints of **A229.02** (4.5 lb ai) per acre per year.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 8 weeks

**Key Weeds Controlled:**

<b>Preemergence</b>	<b>Postemergence</b>
burclover	cheeseweed (malva)
cheeseweed (malva)	fiddleneck, coast
fiddleneck, coast	filaree, broad leaf <sup>1</sup>
filaree, broadleaf	filaree, redstem <sup>1</sup>
filaree, redstem	filaree, whitestem <sup>1</sup>
filaree, whitestem	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	nettle, burning
lambsquarters, common	pigweed, redroot
lettuce, prickly	redmaids
pigweed, redroot	shepherdspurse
redmaids	sowthistle, annual
rocket, London	
shepherdspurse	
sowthistle, annual	
spurge, prostrate	
spurge, spotted	

<sup>1</sup>At the 3-pint rate, **A229.02** will provide control of filaree up to the 6-leaf stage.

**Use on Fallow Beds****Not for use prior to planting soybeans in California**

Used alone or in tank mix combination with glyphosate, **A229.02** provides preemergence and/or postemergence control of winter annual broadleaf weeds on land to be planted to crops.

Prior to planting, treated fallow beds must be thoroughly tilled (incorporated) to a depth of at least 2.5 inches. **A229.02** is no longer herbicidally effective once the active layer in the soil surface is disrupted by soil incorporation.

**Aerial Application:** **A229.02** may be aerially applied for weed control in fallow beds. Follow requirements for Aerial Application in the Product Information section of this label.

**Minimum Treatment to Planting Intervals for listed crops:**

<b>Direct Seeded Crops</b>	<b>A229.02 (up to 0.5 pint/acre)</b>	<b>A229.02 (&gt;0.5 to 1 pint/acre)</b>
carrot	90 days	90 days
cotton	7 days	7 days
potato	60 days	60 days

sugar beet	60 days	90 days
other root/tuber crops	90 days	90 days
onions	180 days	180 days
other bulb vegetables	180 days	180 days
cabbage	90 days	90 days
cauliflower	90 days	90 days
other brassica crops	120 day	120 days
lettuce	90 days	120 days
other leafy vegetables (except brassica crops)	120 days	120 days
pepper	90 days	120 days
tomato	60 days	120 days
other fruiting vegetables	120 days	120 days
cantaloupe	60 days	90 days
squash	90 days	120 days
watermelon	60 days	60 days
other cucurbits	90 days	120 days
dry beans	60 days	60 days
peanut	60 days	60 days
other legume vegetables	60 days	60 days
safflower	60 days	60 days
Soybeans (Except California)	7 days	7 days
cereal grains: Including barley, buckwheat, corn, proso millet, pearl millet, oats, popcorn; rice, rye, sorghum, triticale, wheat, and wild rice	10 months	10 months
cotton and soybean	(see specific labeling for fallow beds to be planted to cotton or soybeans)	

Transplanted Crops	Minimum Treatment-to-Planting Interval	
	A229.02 (up to 0.5 pint/acre)	A229.02 (>0.5 to 1 pint/acre)
celery	30 days	30 days
conifer	0 days	0 days
garlic	0 days	30 days
grape/kiwi	0 days	0 days
onion	0 days	30 days
pepper	30 days	30 days
strawberries	30 days	30 days
tomato	30 days	30 days
Tree fruit/nut/citrus	0 days	0 days

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	0.5 – 1 (0.25 – 0.5 lb ai)	Use 20 or more gallons of spray volume per acre and increase spray volume for dense weed growth.  Use the 0.5 pint (0.25 lb ai) per acre rate for up to 4 weeks of preemergence control and postemergence control of susceptible weeds up to

		<p>4-leaf stage. Use the 1 pint (0.5 lb ai) per acre rate for up to 8 weeks of preemergence control and postemergence control of susceptible weeds up to 6-leaf stage. Best preemergence control is achieved when irrigation or rainfall occurs within 3 or 4 weeks after application.</p> <p>A tank mix with glyphosate is advised if the treatment area contains dense weed populations, oversized weed seedlings, volunteer grains, annual grasses or under unfavorable environmental conditions.</p> <p><b>Outside of California:</b> For enhanced contact activity (burndown/suppression) tank mix 3.25 fl oz (0.1 lb ai) of <b>A229.02</b> with the labeled rate of either glyphosate or paraquat. Apply at the application rate and weed growth stages specified in the respective tank mix product label.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• <b>Failure to achieve thorough and complete incorporation, or to follow the specified treatment planting interval, may result in stand reduction and/or vigor reduction of the planted crop.</b></li> <li>• Crop injury may be enhanced if newly seeded crops or transplants are under stress due to drought, flooding, excessive fertilizer or soil salts, low soil temperatures, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.</li> <li>• <b>Exercise extreme care to avoid herbicide contact with any desirable dormant or non-dormant crop, plant, tree or vegetation as severe injury may result.</b></li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 application per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 10 weeks</li> </ul>		

**Key Weeds Controlled:** **A229.02** provides preemergence and postemergence control of the following weeds on fallow beds:<sup>1</sup>

buttercup, smallflower cheeseweed (malva) eveningprimrose, cutleaf <sup>2</sup> fiddleneck, coast filaree, broadleaf filaree, redstem geranium, Carolina groundcherry, cutleaf groundsel, common henbit ladysthumb minerslettuce	mustard species nettle, burning oxalis pigweed, redroot purslane, common redmaids rocket, London shepherdspurse sida, prickly sowthistle, annual velvetleaf (wild cotton)
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<sup>1</sup>Thorough spray coverage is essential to maximize the postemergence activity of **A229.02**. For postemergence control when applied by air, a tank mixture of **A229.02** with either glyphosate or paraquat is advised.

<sup>2</sup>Requires maximum rate and/or multiple applications for effective control.

**Fallow-Bed Use Prior to Transplanting Peppers or Strawberries Grown in Plastic Culture**

**A229.02** may be applied broadcast or banded as a fallow bed application to pre-formed beds prior to transplanting peppers or strawberries grown in plastic culture. The **A229.02** use rate is up to 1 pint per broadcast acre. It is

advised that soil moisture be used to activate **A229.02** soon after application. This can be done by sprinkler irrigation with approximately 1/2 inch of sprinkler irrigation and then applying the plastic any time during the 30-day treatment to planting interval. Or, if there is adequate existing soil moisture, apply plastic to the beds as soon as possible after application and allow the moisture which condenses and accumulates beneath the plastic to thoroughly wet the treated soil.

Mechanical incorporation of the fallow-bed treatment prior to laying plastic is not required. Not disturbing the soil may allow for extended weed control. Not incorporating increases the potential for crop injury, especially under wet conditions. Therefore, the treatment must be incorporated if the risk of crop injury is not acceptable. The minimum treatment to planting interval is 30 days.

### Fallow Land

#### (For Use Only in Idaho, Oregon and Washington)

Used alone or in a tank mix combination with glyphosate, **A229.02** provides preemergence and/or postemergence control of listed annual broadleaf weeds in a fallow land system. **A229.02** may be used to reduce weed growth prior to the establishment of a dry soil mulch. Use is restricted to summer fallow on land that will be planted the following year to winter wheat, barley or oats.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	0.25 – 1 (0.125 - 0.5 lb ai)	<b>A229.02 Alone:</b> Preemergence weed control occurs as seedling weeds come in contact with the soil-applied herbicide during emergence. Postemergence weed control is most effective when <b>A229.02</b> is applied to seedling weeds less than 4 inches in height. Apply <b>A229.02</b> in 15 or more gallons of water per acre and increase spray volume if weed growth is dense. Use an 80% active nonionic surfactant cleared for use on growing crops for optimum postemergence weed control.
<p><b>Tank Mixing:</b> For postemergence control of annual grass weeds, 0.25 - 1 pt/acre (0.125 – 0.5 lb ai) of <b>A229.02</b> may be tank mixed with labeled rates of glyphosate. Follow label instructions for Fallow and Reduced Tillage Systems for the glyphosate product. Refer to Mixing Directions section for Tank Mixing Precautions.</p> <p>It is the pesticide user’s responsibility to ensure that all products are registered for 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.</p>		
<p><b>Use Restrictions for Fallow Land:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 10 weeks</li> </ul>		

**Key Weeds Controlled:** **A229.02** provides preemergence and postemergence control of the following weeds on fallow land:

fiddleneck, coast henbit lettuce, prickly (china lettuce) mustard, blue (purple mustard) mustard, tumble (Jim hill)	pigweed, red root purslane, common shepherdspurse sowthistle, annual
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mustard)	
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**Garbanzo Beans**  
**(For Use Only in Arizona and California)**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	0.5 (0.25 lb ai)	Apply after planting but prior to weed or crop emergence as a single broadcast application using a spray volume of 20 or more gallons of water per acre.
<b>Precautions:</b> <ul style="list-style-type: none"> <li>Garbanzo beans are tolerant to preemergence application of <b>A229.02</b>; however, under certain conditions, severe but temporary crop injury may occur. A heavy splashing rain shortly after crop emergence or wet soil conditions during early growth stages can cause leaf cupping, crinkling, stunting or defoliation of the garbanzo seedlings. Injury, when it occurs, it is usually limited to the first few leaves that develop after plants emerge from the soil. Delays in crop development and/or maturity may result, but Garbanzo beans do recover with little to no impact on yield.</li> </ul>		
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 0.5 pint of <b>A229.02</b> (0.25 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 0.5 pints of <b>A229.02</b> (0.25 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 1 applications per acre per year.</li> <li><b>DO NOT</b> use bean vines for livestock feed or hay.</li> <li><b>PHI:</b> 30 days.</li> </ul>		

**Key Weeds Controlled:**

Preemergence
groundsel, common mallow, little rocket, London sheperdspurse

**Garlic**

<p><b>Agricultural Use Requirements: DO NOT</b> enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.</p> <p>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:</p> <ul style="list-style-type: none"> <li>Coveralls</li> <li>Chemical-resistant footwear plus socks</li> <li>Chemical-resistant gloves made of any waterproof material</li> <li>Shoes plus socks</li> </ul>
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For optimum preemergence weed control, the soil surface must be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, cultural practices which result in redistribution or disturbance of the soil surface or move untreated soil into treated areas will reduce weed control.



<b>Direct-Seeded Garlic (Postemergence Application):</b>		
<b>Weed Control</b>	<b>Rate (per acre)</b>	<b>Specific Use Directions</b>
Postemergence	1 – 2 fl oz (0.03 – 0.06 lb ai)	<b>Northeastern States: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Apply <b>A229.02</b> at 1 to 2 fl oz (0.031-0.063 lb ai) per acre to direct seeded garlic that has at least 3 fully developed true leaves using ground equipment. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. Multiple treatments at 1 to 2 fl oz (0.031-0.063 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) (16 fl oz) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing. Application to weeds at later than the 4- leaf growth stage may result in reduced weed control.
Postemergence	0.25 – 0.5 pt (0.125 – 0.25 lb ai)	<b>Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington:</b> Apply <b>A229.02</b> at 0.25 to 0.5 pt (0.125- 0.25 lb ai) per acre to direct seeded garlic that has at least 2 fully developed true leaves using ground equipment. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. Multiple treatments at 0.25 to 0.5 pt (0.125- 0.25 lb ai) per acre may be applied up to a maximum of 1.25 (0.625 lb ai) pints per acre per year. For optimum postemergence weed control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing. Application to weeds at later than the 4-leaf growth stage may result in reduced weed control.
Postemergence	0.25 pt (0.125 lb ai)	<b>All Other States:</b> Apply <b>A229.02</b> at 0.25 pt (0.125 lb ai) per acre to seeded garlic that has at least 2 fully-developed true leaves using ground equipment. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. Multiple treatments at 0.25 pt (0.125 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing. Application to weeds at later than the 4- leaf growth stage may result in reduced weed control.

<b>Direct-Seeded Garlic (California Only):</b>		
<b>Weed Control</b>	<b>Rate (per acre)</b>	<b>Specific Use Directions</b>
Preemergence Postemergence	0.5 pt (0.25 lb ai)	<p><b>Application after planting but prior to garlic emergence:</b> Apply <b>A229.02</b> after planting, but prior to crop emergence, for preemergence control of listed broadleaf and grass weeds using ground, air or sprinkler irrigation chemigation).</p> <p><b>Aerial application:</b> Apply in a minimum spray volume of 10 gallons per acre. Follow Aerial Application instructions and precautions in the Product Information section of this label.</p> <p><b>Postemergence directed application:</b> Apply <b>A229.02</b> as a directed spray to garlic that is at least 12 inches tall. Accurate, uniform placement of directed postemergence sprays is essential for effective weed control and to minimize injury to garlic. Use low-pressure sprays and a minimum spray volume of 20 gallons per acre. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. For optimum postemergence control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing. Application at later than the 4-leaf growth stage may result in reduced weed control.</p> <p><b>Sprinkler irrigation (portable lateral or solid set) preemergence or postemergence:</b> Apply <b>A229.02</b> at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Apply after planting but prior to garlic emergence or postemergence when garlic is at least 12 inches tall. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• <b>Garlic Response to Preemergence Applications of A229.02:</b> Following a preemergence application of <b>A229.02</b>, a chlorotic band around some of the leaves may be observed after the first irrigation (or rainfall) following garlic emergence.</li> <li>• <b>Garlic Response to Post-direct Applications of A229.02:</b> Post-direct applications may cause chlorotic leaf banding, necrotic lesions, or stunting of the garlic plants. Symptoms will be more severe if applications are made during cool, wet, overcast, or foggy weather. Garlic will typically outgrow these conditions. A delay in crop development, maturity, reduced yields, or quality may result.</li> </ul>		

<b>Transplanted Garlic: Postemergence Application Immediately after Planting</b>		
<b>Weed Control</b>	<b>Rate (per acre)</b>	<b>Specific Use Directions</b>
Preemergence Postemergence	up to 1 pt (0.5 lb ai)	<b>All States Except Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont:</b> Transplanted garlic is most resistant of a postemergence application immediately after transplanting. An application of up to 1 pint (0.5 lb ai) per acre may be made within two days after transplanting. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. If less than 1 pint (0.5 lb ai) per acre is applied, a second application can be made two weeks or more after transplanting. <b>DO NOT</b> exceed the maximum use rate of 1 pint (0.5 lb ai) per acre of <b>A229.02</b> per year as a result of multiple applications.
Preemergence Postemergence	1 – 2 fl oz (0.03 – 0.06 lb ai)	<b>Northeastern States: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Multiple treatments at 1 to 2 fl oz (0.03 – 0.06 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) (16 fl oz) per acre per year. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area.

**Key Weeds Controlled:**

canarygrass (annual) eveningprimrose, cutleaf groundsel, common mallow, little (malva) nightshade, black pigweed, prostrate <sup>1</sup> pigweed, red root <sup>1</sup>	puncturevine purslane, common <sup>1</sup> rocket, London sage, lanceleaf shepherdspurse <sup>1</sup> sowthistle, annual
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<sup>1</sup>Key weeds controlled at specified rates in Northeastern States.

**Garlic - Crop-Specific Precaution (Postemergence Application):**

- Postemergence applications of **A229.02** may cause chlorotic leaf banding, necrotic lesions, or stunting of the garlic plants. Symptoms may be more severe if garlic emerged under cool, wet, overcast, or foggy weather. These conditions are temporary and will not affect the vigor or development of garlic plants.

**Crop-Specific Restrictions (Applicable to All Methods of Application):**

- In all states **except** Northeastern states, **DO NOT** apply until **direct-seeded** garlic plants have two fully-developed true leaves. In the Northeastern states, **DO NOT** apply until direct seeded garlic plants have three fully-developed true leaves. Application made prior to the specified growth stage may result in serious crop injury.
- **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per application.
- **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 8 weeks
- **DO NOT** apply within 60 days of harvest.
- In direct-seeded garlic (except in California), **DO NOT** apply **A229.02** as a preemergence treatment.

- Use only on dry bulb garlic.
- **DO NOT** apply to garlic grown for seed.
- For weed control in garlic, **DO NOT** mix **A229.02** with oils, surfactants, liquid fertilizers or pesticides except if specified on approved Atticus, LLC Supplemental Labeling.
- **DO NOT** apply to garlic plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously-applied pesticides, or injury due to insects, nematodes or diseases.

**Guava (Bearing and Non-Bearing)  
(For Use Only in Hawaii)**

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2.5 – 4 (1.25 – 2.0 lb ai)	<p><b>Preemergence or Postemergence:</b> In established guava plantings, apply preemergence or postemergence to weeds. Increase the spray volume to ensure adequate coverage in high densities of emerged weeds or heavy trash. Minimize contact with guava plants by directing the spray to the soil surface. Spray shields are suggested to minimize spray contact in young plantings.</p> <p>For broader spectrum postemergence control of grass and broadleaf weeds, <b>A229.02</b> may be applied in tank mix combination with paraquat or glyphosate.</p> <p>Follow applicable use directions, precautions and limitations on the labels of the respective tank mix products.</p>
Postemergence	1 – 4 (0.5 – 2.0 lb ai)	
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Prevent direct spray or drift from contacting green stems, fruit or foliage, as injury may result.</li> <li>• Alone or in tank mix combination, <b>A229.02</b> must be applied to only healthy growing trees.</li> <li>• Application of <b>A229.02</b> must be made only after new foliage growth has hardened off.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 4 pints of <b>A229.02</b> (2.0 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 8 pints of <b>A229.02</b> (4.0 lb ai ) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 8 weeks</li> <li>• <b>DO NOT</b> apply <b>A229.02</b> within 1 day of harvest.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
ageratum buttonweed crotalaria purslane, common spurge, garden	purslane, common spurge, garden

## Horseradish

**Agricultural Use Requirements:** **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1 (0.5 lb ai)	Apply <b>A229.02</b> after the horseradish roots have been planted but prior to emergence of new horseradish leaves. Emerged leaves that receive direct or indirect spray (drift) contact will be injured. If necessary, cultivate before application to destroy germinated weeds.
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply <b>A229.02</b> to horseradish plantings that have been weakened or stressed due to unfavorable temperature conditions, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 1 application per acre per year.</li> <li>• <b>PHI:</b> 60 days</li> </ul>		

### Key Weeds Controlled:

lambsquarters, common pigweed, redroot purslane, common	sheperdspurse smartweed, pennsylvania
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## Jojoba

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 3 (1.0 – 1.5 lb ai)	<p>Initial application may be made when jojoba plants have reached a height of 6 inches or more. Use sufficient spray volume to ensure thorough coverage of dense weed growth. Sprays must be directed to the base of jojoba plants to avoid possible phytotoxicity to foliage. Spray shields are suggested for use in young plantings. Use higher rate in rate range for extended residual preemergence weed control. Make follow-up applications as necessary to maintain weed control.</p> <p>For early postemergence control of susceptible seedling weeds (less than 8 inches tall) apply <b>A229.02</b> at the rate of 2 pints (1.0 lb ai) per acre. <b>A229.02</b> may be applied at the rate of 3 pints (1.5 lb ai) per acre for postemergence control of weeds up to 12 inches tall. For optimum residual control, apply during the fall or winter months.</p>

		Control may be unsatisfactory for weeds greater than 12 inches tall.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>• Avoid direct spray or drift contact with jojoba flowers or buds as severe injury may result,</li> <li>• Over-the-top applications may cause burning, crinkling or bronzing of jojoba foliage, particularly to the youngest leaves, flowers, or buds present at the time of application.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 1 application per acre per year.</li> <li>• <b>PHI:</b> 30 days.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
burclover	fiddleneck, coast
fiddleneck, coast	filaree, broadleaf <sup>2</sup>
filaree, broadleaf	filaree, redstem <sup>2</sup>
filaree, redstem	filaree, whitestem <sup>2</sup>
filaree, whitestem	groundsel, common <sup>1</sup>
groundsel, common	henbit
henbit	mallow, little (malva, cheeseweed)
knotweed, prostrate	minerslettuce
lambsquarters, common	nettle, burning
lettuce, prickly	pigweed, red root <sup>1</sup>
mallow, little (malva, cheeseweed)	redmaids
pigweed, red root	shepherdspurse
purslane, common	sowthistle, annual
redmaids	
rocket, London	
shepherdspurse	
sowthistle, annual	

<sup>1</sup>Highest rate may be required for acceptable postemergence control.

<sup>2</sup>**A229.02** at the 3-pint rate will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

**Mint (Spearmint and Peppermint Tops)**

Mint (Spearmint and Peppermint) Grown on Mineral Soils		
Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 3 (1.0 – 1.5 lb ai)	<p><b>Oregon and Washington (East of Cascades), California, Montana, Idaho, Nevada, South Dakota and Utah:</b> Apply from December through March when mint is dormant.</p> <p>When used postemergence (to weeds), add an 80% active ingredient nonionic surfactant at the rate of one quart per 100 gallons of spray volume and apply before weeds exceed a height of 4 inches.</p> <p>Late winter applications will provide maximum activity on summer weeds, but summer grass control may be</p>

		inconsistent. For best results, fall-plowed fields must be harrowed to provide a smooth surface for application. In furrow-irrigated fields, corrugating must be done prior to application. Corrugating or harrowing will result in disturbance of treated soil or movement of untreated soil into treated areas, resulting in poor weed control.
Preemergence	1 – 1.5 (0.5 – 0.75 lb ai)	<b>Peppermint (Western Oregon Willamette Valley):</b> Apply <b>A229.02</b> from November through February to dormant peppermint only. Treatments in January or February provide better residual preemergence control of annual broadleaf weeds. Full season weed control must not be expected from this treatment.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Application must be made prior to emergence of new spring growth or severe crop injury may result.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li><b>DO NOT</b> apply to spearmint or peppermint weakened by disease, drought, flooding, excessive fertilizer, soil salts, previously applied pesticides, nematodes, insects, or winter injury, as severe injury may result.</li> <li>Apply <b>A229.02</b> only to healthy stands of spearmint and peppermint.</li> <li><b>In the Willamette valley, DO NOT apply A229.02 to mint that has been plowed.</b></li> <li><b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per year.</li> <li><b>DO NOT</b> make more than 1 application of <b>A229.02</b> per acre per year.</li> <li><b>PHI:</b> 30 days.</li> </ul>		

**Key Weeds Controlled:**

bedstraw, catchweed bluegrass, annual <sup>1</sup> flixweed groundsel, common lambquarters, common lettuce, prickly (china lettuce) mustard, blue (purple mustard) mustard, tumble (Jim hill mustard) nightshade, hairy	oats, wild <sup>1</sup> orach, red pepperweed, yellowflower pigweed, redroot ryegrass, Italian <sup>1</sup> shepherdspurse sowthistle, annual tansymustard thistle, Russian
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<sup>1</sup>Control of annual grasses is best obtained when **A229.02** is applied prior to emergence. Postemergence control of winter annual grasses is unsatisfactory if applications are made after the 1 to 2-leaf stage.

<b>Mint (Spearmint and Peppermint Tops) Grown on Muck Soils: For Use Only on Mint Grown in Indiana, Michigan, Montana, North Dakota, South Dakota, and Wisconsin</b>		
<b>Weed Control</b>	<b>Rate (pt/acre)</b>	<b>Specific Use Directions</b>
Preemergence Postemergence	2 – 3 (1.0 – 1.5 lb ai)	<p><b>Note:</b> Use directions in this section apply only to spearmint and peppermint grown on muck soils (organic matter content of 20% or greater).</p> <p>When used postemergence (to weeds), add an 80% active ingredient nonionic surfactant at the rate of one quart per 100 gallons of spray volume and apply before weeds exceed a height of 4 inches.</p>

**Precautions:**

- Application must be made prior to emergence of new spring growth or severe crop injury may result.

**Crop-Specific Restrictions:**

- To avoid excessive crop injury, **DO NOT** apply within 4 days of planting (sprigging) spearmint or peppermint.
- Apply **A229.02** only to healthy spearmint or peppermint. **DO NOT** apply to spearmint or peppermint that has been weakened by disease, nematodes, soil insects, or winter injury, as severe injury may result.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per application.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per year.
- **DO NOT** make more than 1 application of **A229.02** per acre per year.
- **PHI:** 180 days.

**Key Weeds Controlled:**

Knotweed, prostrate pigweed, redroot purslane, common
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**Non-Crop Use**

**(Non-Food-Producing, Non-Agricultural Areas, including Highway and Utility Rights-of-Way, Industrial Sites, Tank Farms, Storage Areas, Airports, Fencerows, and Farmsteads)**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	2.5 – 4 (1.25 – 2.0 lb ai)	<b>Preemergence:</b> Use higher rate in rate range for longer residual control.
Postemergence	1 – 4 (0.5 – 2.0 lb ai)	<b>Postemergence:</b> Use the lower rate in the rate range for control of susceptible weeds in the early postemergence stage, less than 4 inches tall. Use the higher rate for weeds up to 12 inches tall. Application to weeds beyond the 4-inch stage may result in partial control.

**Tank Mixing:** Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.

- **Preemergence:** For broader-spectrum residual preemergence weed control, **A229.02** may be applied in tank mix combination with diuron or simazine.
- **Postemergence:** For additional postemergence control of susceptible grass and broadleaf weeds, **A229.02** may be applied in tank mix combination with paraquat or glyphosate.

It is the pesticide user's responsibility to ensure that all products are registered for 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

**Site-Specific Restrictions:**

- **DO NOT** feed or allow animals to graze on any areas treated with **A229.02**.
- **DO NOT** apply more than 4 pints of **A229.02** (2.0 lb ai) per acre per application.
- **DO NOT** apply more than 8 pints of **A229.02** (4.0 lb ai) per acre per year.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 8 weeks

**Key Weeds Controlled:**

Preemergence	Postemergence
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burclover cheeseweed (malva) fiddleneck, coast filaree, broadleaf filaree, redstem groundsel, common henbit knotweed, prostrate lambsquarters, common lettuce, prickly pigweed, red root purslane, common redmaids rocket, London shepherdspurse sowthistle, annual	cheeseweed (malva) fiddleneck, coast filaree, broadleaf filaree, redstem groundsel, common henbit minerslettuce nettle, burning pigweed, redroot redmaids shepherdspurse sowthistle, annual
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**Onions (California Only) For applications to onions at first true leaf stage.**

For applications to onions at later growth stages, refer to the **ONION** section below.

**Agricultural Use Requirements: DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Weed Control	Rate (oz/acre)	Specific Use Directions
Postemergence	4-6 (0.125 - 0.188 lb ai)	<p><b>A229.02</b> may be applied as a broadcast or directed spray for the postemergence suppression or control of susceptible broadleaf weed species in dry bulb onions. Apply <b>A229.02</b> after all onions have at least one true leaf fully emerged, extended and developed. The second true leaf must be visible at the time of application. The cotyledon ("flag leaf") is not the first true leaf. Best weed control results are obtained when <b>A229.02</b> is applied to young (1-4 leaf), actively growing weeds. <b>DO NOT</b> apply to onions grown for seed, except as specified on other labels.</p> <p><b>Application timing:</b> Apply <b>A229.02</b> after all onions have at least one true leaf fully emerged, extended and developed. The second true leaf must be visible at the time of application. The cotyledon ("flag leaf") is not the first true leaf.</p> <p>Additional applications may be made during later stages</p>

		<p>of crop development. The total amount of <b>A229.02</b> applied must not exceed 16 fl oz (0.5 lb ai) per acre per crop. [Goal® 2XL(oxyfluorfen, 92894-2)][A229.01 (oxyfluorfen, 91234-XX)] also may be used for later applications. The total amount of oxyfluorfen applied must not exceed 0.5 lb active ingredient per acre per crop.</p> <p><b>Ground Application:</b> Apply with ground equipment in a spray volume of at least 20 gallons of water per acre. Higher spray volumes are advised for best results. Increase the spray volume to ensure complete and uniform coverage as weed height and density increases. Use a low-pressure sprayer operated at the manufacturer's specified pressure.</p> <p><b>Chemigation:</b> Apply 4 fl oz (0.125 lb ai) of product per acre, using a solid set or portable lateral sprinkler irrigation system. Follow all directions given in the <b>CHEMIGATION INSTRUCTIONS</b> section. Refer to <b>AERIAL APPLICATION</b> section for buffer zone requirements. For upwind and side borders, maintain a minimum buffer zone of 150 feet from any vegetable crop or fallow bed field which will be planted to a crop within the number of days specified in the <b>USE ON FALLOW BEDS</b> section.</p>
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**Precautions:**

- **Crop Resistance:** Dry bulb onions are tolerant to postemergence applications of **A229.02**, but application may result in some crop injury. **DO NOT** apply **A229.02** if the risk of crop injury is considered unacceptable. When applied to dry bulb onions at the first true leaf stage, **A229.02** may cause spotting, twisting or stunting. Injury is more likely when cold conditions (<40° F) occur before or after treatment, or when extended cool or cloudy conditions reduce active plant growth. When injury occurs, it usually is limited to the treated leaves, with new leaves emerging undamaged. Delay in crop development and/or maturity, and yield reduction may result from treatment to dry bulb onions with **A229.02** under these conditions.

**Onions – Crop-Specific Restrictions (California Only)**

- Use **A229.02** only on dry bulb onions
- **DO NOT** apply **A229.02** to onions grown for seed, except as instructed in separate use directions.
- At the time of application, all onion plants must have at least one true leaf fully emerged, extended and developed. The second true leaf must be visible at the time of application. The cotyledon ("flag leaf") is not the first true leaf.
- **DO NOT** apply **A229.02** to dry bulb onions when air temperatures are below 40° F at any time during the seven day period before application, or if air temperatures are expected to be below 40° F during the seven day period after the planned application.
- **DO NOT** apply more than 6 fl oz/acre (0.188 lb ai) of **A229.02** by ground per application.
- **DO NOT** apply more than 4 fl oz/acre (0.125 lb ai) of **A229.02** by chemigation at the first true leaf stage of crop development.
- **DO NOT** apply more than 16 ounces per acre of **A229.02** (0.5 lb ai) per year.
- If [Goal 2XL] [**A229.01**] is used for later applications, the total amount of oxyfluorfen applied must not exceed 0.5 lb active ingredient per acre per application.
- **DO NOT** apply **A229.02** with adjuvants, oils, surfactants, liquid fertilizers or pesticides.
- **DO NOT** apply **A229.02** within 45 days of onion harvest.

- **DO NOT** apply **A229.02** when weather conditions favor drift. Avoid **A229.02** drift to all non-target areas. **A229.02** is phytotoxic to susceptible plant foliage.
- **DO NOT** apply **A229.02** if heavy rainfall is predicted to occur within 24 hours after the planned application.
- **DO NOT** apply **A229.02** to plants that are weakened or are under stress due to temperature, disease, fertilizer, soil, salts, nematodes, insects, pesticides, drought, excessive moisture, flooding, or soil crusting.
- **DO NOT** apply **A229.02** as a preemergence treatment to direct-seeded onions.
- Tank mixtures of **A229.02** with oils, surfactants, liquid fertilizers or other pesticides may be made but could result in enhanced crop response/injury and are the responsibility of the user.

## Onions

**Agricultural Use Requirements:** **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

For optimum preemergence weed control, the soil surface must be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, cultural practices that result in redistribution or disturbance of the soil surface or move untreated soil into treated areas will reduce weed control.

<b>Direct-Seeded Onions: Postemergence Application</b>		
<b>Weed Control</b>	<b>Rate (per acre)</b>	<b>Specific Use Directions</b>
Postemergence	1 – 2 fl oz (0.03 – 0.06 lb ai)	<b>Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Apply <b>A229.02</b> at 1 to 2 fl oz (0.03 – 0.06 lb ai) per acre to direct-seeded onions that have at least 3 fully-developed true leaves using ground equipment. Multiple treatments at 1 to 2 fl oz (0.03 – 0.06 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) (16 fl oz) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing.
Postemergence	0.25 – 0.5 pt (0.125 – 0.25 lb ai)	<b>Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington:</b> Apply <b>A229.02</b> at 0.25 to 0.5 pt (0.125 – 0.25 lb ai) per acre to direct-seeded onions that have at least 2 fully-developed true leaves, using ground equipment. Multiple treatments at 0.25 to 0.5 pt (0.125 – 0.25 lb ai) per acre may be applied up to a maximum of 1.25 pints (0.625 lb ai) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing. <b>Sprinkler Irrigation (center pivot, portable lateral or solid</b>

		<b>set):</b> Apply <b>A229.02</b> at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.
Postemergence	0.25 pt (0.125 lb ai)	<b>All other states:</b> Apply <b>A229.02</b> at 0.25 pt (0.125 lb ai) per acre to direct seeded onions that have at least 2 fully developed true leaves using ground equipment. Multiple treatments at 0.25 pt (0.125 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2-to 4-leaf stage and actively growing. <b>Sprinkler Irrigation (center pivot, portable lateral or solid set):</b> Apply <b>A229.02</b> at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.

<b>Transplanted Onions: Application Immediately before Planting</b>		
<b>Weed Control</b>	<b>Rate (per acre)</b>	<b>Specific Use Directions</b>
Preemergence Postemergence	0.5 – 1 pt (0.25 – 0.5 lb ai)	<b>Pre-transplant application (not for use in Northeastern states or Western states):</b> <b>A229.02</b> may be applied as a broadcast or band application after completion of tillage operations, but before transplanting of onion plants. Transplanting must be accomplished with a minimum of soil disturbance. For optimum weed control, soil surfaces must be left undisturbed after transplanting for the period for which weed control is desired. However, timely cultivation after weed emergence will assist in weed control. If less than 1 pt (0.5 lb ai) per acre was applied as a pre-transplant application, postemergence applications may be made as instructed for seeded onions. <b>DO NOT</b> exceed the maximum use rate of 1 pt (0.5 lb ai) per acre per year as a result of multiple applications.

<b>Transplanted Onions: Application Immediately after Planting</b>		
<b>Weed Control</b>	<b>Rate (per acre)</b>	<b>Specific Use Directions</b>
Preemergence	up to 1 pt (0.5 lb ai)	<b>All states except Northeastern states:</b> Transplanted onions are most tolerant of a postemergence application immediately after transplanting. An application of up to 1 pint (0.5 lb ai) per acre may be made within two days after transplanting. If less than 1 pint (0.5 lb ai) per acre is applied, a second application can be made two weeks or more after transplanting. <b>DO NOT</b> exceed the maximum use rate of 1 pint (0.5 lb ai) per acre of <b>A229.02</b> per year as a result of multiple applications.
Preemergence	1 – 2 fl oz (0.03 – 0.06 lb ai)	<b>Northeastern states including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York,</b>

		<b>Rhode Island and Vermont:</b> Multiple treatments at 1 to 3 fl oz (0.03-0.06 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) (16 fl oz) per acre per year.
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<b>Onions - Use Precautions (applicable to all areas and methods of application):</b>
<ul style="list-style-type: none"> <li>• <b>A229.02</b> can cause necrotic lesions, twisting, pigtailing or stunting of the onion plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the specified onion growth stage of the onion plants as specified in Specific Use Directions.</li> </ul>

<b>Onions - Crop-Specific Restrictions (applicable to all areas and methods of application):</b>
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects, nematodes or diseases.</li> <li>• In all states <b>except</b> Northeastern states, <b>DO NOT</b> apply until <b>direct-seeded</b> onion plants have at least two fully-developed true leaves. In the Northeastern states, <b>DO NOT</b> apply until direct-seeded onion plants have at least three fully-developed true leaves. Application made prior to the specified growth stage may result in serious crop injury.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 8 weeks</li> <li>• <b>DO NOT</b> apply within 45 days of harvest.</li> <li>• <b>DO NOT</b> apply <b>A229.02</b> as a preemergence treatment to direct-seeded onions.</li> <li>• Use only on dry bulb onions.</li> <li>• <b>DO NOT</b> apply to onions grown for seed, except as instructed in separate use directions.</li> <li>• Tank mixtures of <b>A229.02</b> with oils, surfactants, liquid fertilizers or other pesticides may be made but could result in enhanced crop response/injury and are the responsibility of the user.</li> </ul>

**Key Weeds Controlled:**

<b>Postemergence</b>
canarygrass (annual) eveningprimrose, cutleaf <sup>(a)</sup> groundsel, common mallow, little (malva) nightshade, black pigweed, prostrate <sup>(b)</sup> pigweed, redroot <sup>(a,b)</sup> puncturevine purslane, common <sup>(a,b)</sup> rocket, London sage, lanceleaf shepherdspurse <sup>(b)</sup> sowthistle, annual

<sup>a</sup>Weeds controlled when applied as a pre-transplant application. In addition, **A229.02** at the rate of 1 to 2 pints per acre will provide control/suppression of carpetweed, Pennsylvania smartweed, galinsoga, common lambsquarters, and wild mustard. Applications of **A229.02** to muck soils may result in partial control or suppression of the weeds listed.

<sup>b</sup>Specific weeds controlled at specified rates for use in Northeastern states (see SPECIFIC USE DIRECTIONS section).

## Onions Grown for Seed

**Agricultural Use Requirements:** **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Weed Control	Rate (per acre)	Specific Use Directions
Preemergence	1 fl oz (0.03 lb ai)	<b>Northeastern States including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Multiple treatments at 1 fl oz (0.03 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) (16 fl oz) per acre per year. Prior to initial treatment, seeded onions must have <i>at least four (4) true leaves</i> . Multiple treatments at the aforementioned rate may be applied.
Preemergence	up to 0.25 pt (0.125 lb ai)	<b>All other States:</b> Apply <b>A229.02</b> at up to 0.25 pt (0.125 lb ai) per acre to seeded onions that have <i>at least three (3) true leaves</i> . Multiple treatments at 0.25 pt (0.125 lb ai) per acre may be applied up to a maximum of 1 pint (0.5 lb ai) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.  <b>Sprinkler Irrigation - Portable Lateral or Solid Set:</b> Apply <b>A229.02</b> at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.

### Use Precautions:

- **Notice:** Some varieties or inbred lines of onions may be more susceptible to **A229.02**. Care must be taken to insure that the particular onion variety or line being grown is resistant to **A229.02**. It is suggested that all onion varieties or lines be tested in limited areas to ensure an adequate level of crop resistance prior to an application for postemergence weed control.
- **A229.02** can cause necrotic lesions, twisting, pigtailling or stunting of the onion plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the specified onion growth stage of the onion plants as specified in Specific Use Directions.
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### Crop-Specific Restrictions:

- In all states, **DO NOT** apply **A229.02** until the onions have reached the minimum leaf stage specified. Application prior to the specified stage of development may result in serious injury.
- **DO NOT** apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts,

- wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.
- **DO NOT** apply more than 0.25 pints of **A229.02** (0.125 lb ai) per acre per application.
- **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per acre per year.
- **Retreatment Interval:** 8 weeks
- **DO NOT** apply within 60 days of harvest.
- For seeded onions, **DO NOT** apply **A229.02** with oils, surfactants, liquid fertilizers or other pesticides except if specified in approved Atticus, LLC Supplemental Labeling.

**Key Weeds Controlled:**

Postemergence
canarygrass (annual)
eveningprimrose, cutleaf
groundsel, common
mallow, little (malva)
nightshade, black
pigweed, prostrate <sup>1</sup>
pigweed, redroot <sup>1</sup>
puncturevine
purslane, common <sup>1</sup>
rocket, London
sage, lanceleaf
shepherdspurse
sowthistle, annual

<sup>1</sup>Specific weeds controlled at specified rates for use in Northeastern states (see SPECIFIC USE DIRECTIONS section).

**Papaya  
(For Use Only in Hawaii)**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 (1.0 lb ai)	<p>The initial application must occur no sooner than 4 months after transplanting or 6 months after direct seeding, and after the papaya has reached a minimum height of 4 feet. Applications may be repeated at approximate 4-month intervals.</p> <p>Apply preemergence or postemergence to weeds. Increase the spray volume to assure adequate coverage of dense growth of emerged weeds. <b>A229.02</b> must be applied as a directed spray to the orchard floor beneath the papaya plants. Accurate, uniform placement of <b>A229.02</b> is essential for effective weed control and to minimize crop injury. <b>A229.02</b> must be applied using rigid precision ground sprayer equipment.</p> <p>Postemergence applications may be made up to the 4 leaf stage of weed growth.</p>
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> use <b>A229.02</b> on papaya plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.</li> </ul>		

- **DO NOT** allow the herbicide solution, spray, drift or mist to contact green bark, stems, fruit or foliage as injury may result.
- **DO NOT** apply more than 2 pints of **A229.02** (1.0 lb ai) per acre per application.
- **DO NOT** apply more than 6 pints of **A229.02** (3.0 lb ai) per acre per year.
- **DO NOT** make more than 3 applications per acre per year.
- **Retreatment Interval:** 8 weeks
- **DO NOT** apply **A229.02** within 1 day of harvest.

**Key Weeds Controlled:**

amaranth, spiny  
purslane, common  
spurge, garden

**Soybeans[\*]**

[Not for Use in California]

<b>Soybeans - Early Preplant Application in Conservation Tillage Systems</b>		
<b>Weed Control</b>	<b>Rate (pt/acre)</b>	<b>Specific Use Directions</b>
Preemergence	0.75 – 1.5 (0.375 – 0.75 lb ai)	<p><b>Early Preplant Application:</b> Surface apply <b>A229.02</b> to the stale seedbed approximately 14 days before planting conservation tillage soybeans for postemergence and preemergence residual broadleaf control. Use a spray volume of 20 or more gallons per acre and increase the spray volume if growth of existing weeds is dense.</p> <p><b>A229.02</b> at 1 to 1.5 pints (0.5 – 0.75 lb ai) provides early season suppression of annual grasses, but must not be relied upon as a basic grass herbicide. A planned program utilizing herbicides registered for early preplant, preemergence or postemergence grass control in soybeans is specified.</p> <p>Use of ridge or slot planter or a similar planting implement that causes minimal soil disturbance is specified. Movement or redistribution of surface soil will reduce herbicidal effectiveness.</p>

<b>Soybeans: No-Till (Double-Crop)</b>		
<b>Application Timing for Target Weeds</b>	<b>Rate (pt/acre)</b>	<b>Specific Use Directions</b>
Preemergence Postemergence	0.25 – 1 (0.125 – 0.5 lb ai)	<p><b>Preemergence Application to Soybeans:</b> Applied preemergence, <b>A229.02</b> provides postemergence and residual preemergence control of susceptible broadleaf weeds. <b>Apply A229.02 within one day after planting. Later applications may result in severe crop injury.</b> Apply in a minimum spray volume of 20 gallons per acre and increase spray volume if growth of existing weeds is dense.</p>



**Tank Mixing:** For enhanced postemergence control of existing grass and broadleaf weeds, **A229.02** may be tank mixed with paraquat or glyphosate. For extended residual control of annual grasses no-till soybeans, **A229.02** may also be tank mixed with a residual grass herbicide including Bronco Herbicide (alachlor+glyphosate-isopropylammonium, 524-341) or Metallis (s-metolachlor, 91234-52).

Postemergence	0.5 (0.25 lb ai)	<b>Postemergence Directed Application:</b> <b>A229.02</b> may be applied as a post-directed application. Optimum control is achieved when <b>A229.02</b> is applied to seedling weeds not exceeding 4 true leaves (not counting cotyledon leaves) and actively growing. Use an 80% nonionic surfactant cleared for application to growing crops at the rate of 2 pints (1.0 lb ai) per 100 gallons of spray whenever postemergence weed control is desired. <b>For postemergence application, Soybeans must be a minimum 8 inches tall.</b> Use a minimum of 2 flat fan nozzles per row. Use branch lifters or shields to prevent excessive spray contact to the soybean plants. <b>DO NOT</b> use hollow cone nozzles.
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<b>Soybeans: Grown Under Conventional Tillage Systems</b>		
<b>Application Timing for Target Weeds</b>	<b>Rate (pt/acre)</b>	<b>Specific Use Directions</b>
Preemergence Postemergence	0.5 – 0.75 (0.25 – 0.375 lb ai)	<b>Preemergence Application to Soybeans: A229.02</b> provides preemergence control of susceptible broadleaf weeds. <b>Apply A229.02 within one day after planting. Later applications may result in severe crop injury.</b> Apply in a minimum spray volume of 20 gallons per acre and increase spray volume if growth of existing weeds is dense. The 0.75 pint (0.375 lb ai) per acre rate will assist in early season annual grass control but must not be relied upon as a basic grass herbicide. <b>A229.02</b> may also be applied as a preemergence application following a preplant incorporated grass herbicide treatment.
<b>Preemergence Tank Mixes (To Control Additional Grass and Broadleaf Weeds): Apply preemergence tank mixes of A229.02 within one day after planting. Later applications may result in severe crop injury.</b>		
<ul style="list-style-type: none"> <li><b>A229.02</b> at 0.3 to 0.75 pints (0.15 – 0.375 lb ai) per acre may be applied preemergence to soybeans in tank mix with Metallis. <b>A229.02</b> may be applied alone as a preemergence application following a preplant incorporated grass herbicide application or as a tank mix in a preemergence application with Metallis. Refer to the label of tank mix product for additional weeds controlled.</li> <li><b>A229.02</b> at 0.3 to 0.4 (0.15 – 0.2 lb ai) pints per acre may be applied preemergence to soybeans in tank mix with clomazone. Refer to the product label for additional weeds controlled.</li> </ul>		
Postemergence	0.5 (0.25 lb ai)	<b>Postemergence Directed Sprays:</b> <b>A229.02</b> may be applied as a post-directed application at 0.5 pint (0.25 lb ai) per acre. Optimum control is achieved when weeds not exceed 4 true leaves and are actively growing ( <b>DO NOT</b> count cotyledon leaves). Use of an 80% nonionic surfactant cleared for application to growing crops at the rate of 2 pints (1.0 lb ai) per 100 gallons of spray is advised whenever postemergence weed control is desired. <b>For postemergence application, Soybeans must</b>

		<b>be a minimum 8 inches tall.</b> Use a minimum of 2 flat fan nozzles per row. Use branch lifters or shields to prevent excessive spray contact to the soybean plants. <b>DO NOT</b> use hollow cone nozzles.
<b>Postemergence Tank Mixes:</b> For broader spectrum control of broadleaf weeds, <b>A229.02</b> may be applied in tank mix with butyrate or Butyrac 200 Herbicide (butyric acid, dimethylamine salt, 42750-38). Use 0.5 pint (0.25 lb ai) of <b>A229.02</b> with 1 pint of butyrate or 0.7 to 0.9 pint of Butyrac 200 per acre. Refer to label of tank mix product for additional weeds controlled.		
<b>Precautions (All Methods and Timings to Soybeans):</b>		
<ul style="list-style-type: none"> <li>Soybeans are resistant to preemergence and post-directed applications of <b>A229.02</b> at specified rates, however, under certain conditions injury may occur. Heavy splashing rain shortly after crop emergence or cold, wet soil conditions during early growth stages can cause leaf cupping and crinkling. When injury occurs, it is limited to the first few leaves that develop after crop emergence. Soybeans recover from this injury and yields are not adversely affected. Soybeans accidentally sprayed during a post-directed application will exhibit necrotic spotting and injury to the soybean plant. Exercise care to avoid spray contact with the soybean leaves.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li><b>Tank Mixing:</b> 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.</li> <li><b>DO NOT</b> apply more than 1.5 pints of <b>A229.02</b> (0.75 lb ai) per acre per application.</li> <li><b>DO NOT</b> apply more than 1 pint (0.5 lbs ai) of <b>A229.02</b> per acre per year as a result of preemergence application in no-till (double-crop) or conventional till soybeans, or postdirected in conventional till soybeans.</li> <li>If early preplant application is made, <b>DO NOT</b> apply more than 1.5 pints (0.75 lb ai) of <b>A229.02</b> per acre per year.</li> <li><b>DO NOT</b> make more than two applications of <b>A229.02</b> per acre per year.</li> <li><b>Retreatment Interval:</b> 8 weeks</li> <li><b>DO NOT</b> apply a post-directed application of <b>A229.02</b> to soybeans after the initial appearance of blooms.</li> <li><b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per year.</li> </ul>		

**Key Weeds Controlled:**

<b>Preemergence</b>	<b>Postemergence</b>
groundcherry, cutleaf <sup>1</sup>	cocklebur, common
jimsonweed	croton, tropic
lambsquarters, common	groundcherry, cutleaf
nightshade, American black <sup>1</sup>	groundcherry, Wright
nightshade, black <sup>1</sup>	jimsonweed
pigweed, red root	lambsquarters, common
poinsettia, wild	morningglory, annual (up to 6 leaf)
shepherdspurse	mustard, wild
sida, prickly (teaweed)	nightshade, American black
smartweed, Pennsylvania	nightshade, black
sowthistle, common <sup>1</sup>	nightshade, hairy
velvetleaf	pigweed, red root <sup>1</sup>
	poinsettia, wild
	purslane, common

	sesbania, hemp shepherdspurse sicklepod <sup>2</sup> sida, prickly (teaweed) <sup>1</sup> smartweed, Pennsylvania velvetleaf
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<sup>1</sup>Multiple applications may be required for acceptable control.

<sup>2</sup>Post-direct applications of **A229.02** will kill or suppress seedlings not exceeding the one true leaf stage.

## Taro

### (For Use Only in Hawaii)

For use only in dryland taro grown in Hawaii. Dryland taro is defined as taro grown without irrigation, or by using irrigation practices that **DO NOT** result in run-off, irrigation return flow, or other loss of irrigation water from the production area. If irrigation is used, the water applied shall not exceed the field capacity of the soil.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1 (0.5 lb ai)	<b>Preemergence to Taro and Weeds:</b> A single application of <b>A229.02</b> at the rate of 1 pint (0.5 lb ai) per acre may be applied within 1 week after transplanting but prior to emergence of taro plants.
Postemergence	0.5 (0.25 lb ai)	<b>Postemergence to Taro and Weeds:</b> <b>A229.02</b> may be applied as a post-directed or band application at the rate of 0.5 pint (0.25 lb ai) per acre. Effective control of succulent weed seedlings in the 2-to 3-leaf stage can usually be obtained. Applications to weeds beyond the 3-leaf stage may result in partial control.
<b>Precautions:</b> <ul style="list-style-type: none"> <li>Accurate, uniform placement of <b>A229.02</b> is essential for effective weed control and to minimize crop injury. Taro foliage receiving accidental spray or drift will be injured. <b>A229.02</b> must be applied using rigid precision ground sprayer equipment.</li> <li>Occasionally, after the use of <b>A229.02</b>, spotting, crinkling or flecking may appear on the leaves of the taro. Leaves that receive direct or indirect (drift) spray contact will be injured.</li> </ul>		
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li><b>DO NOT</b> use <b>A229.02</b> on taro plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.</li> <li><b>DO NOT</b> apply more than 1 pint of <b>A229.02</b> (0.5 lb ai) per broadcast acre per preemergence application.</li> <li><b>DO NOT</b> apply more than 0.5 pint of <b>A229.02</b> (0.25 lb ai) per acre in a single post-direct spray or more than 1 pint (0.5 lb ai) per acre per year as a result of multiple post-directed applications.</li> <li><b>DO NOT</b> apply more than 2 pints of <b>A229.02</b> (1.0 lb ai) per acre per year as a result of preemergence and post-direct applications.</li> <li><b>DO NOT</b> make more than 2 applications per acre per year when using reduced application rates.</li> <li><b>Retreatment Interval:</b> 10 weeks</li> <li><b>DO NOT</b> apply <b>A229.02</b> within 6 months of harvest of taro (corms, leaves).</li> </ul>		

### Key Weeds Controlled:

amaranth, spiny purslane, common spurge, garden
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**Tree Fruit / Nut / Vine Crops (Dormant Application)**

Almond, Apple, Apricot, Avocado, Beechnut, Brazil Nut, Bitternut, Cashew, Cherry, Chestnut, Chinquapin, Crabapple, Date, Feijoa, Fig, Filbert, Grapes, Hickory Nut, Kiwi, Loquat, Macadamia Nut, Mayhaws, Nectarine, Olives, Peach, Pear, Pecan, Persimmon, Pistachio, Plum, Pomegranates, Prune, Quince, and Walnut

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence (broadcast application)  (banded application)	2.5 – 3 (1.25 – 1.5 lb ai)  2.5 – 4 (1.25 – 2.0 lb ai)	Apply <b>A229.02</b> a minimum of 20 gallons of water per acre. Use higher spray volumes to ensure thorough coverage in high densities of emerged weeds or heavy trash. Sprays must be directed to the soil and the base of dormant trees or vines.  <b>In California, A229.02</b> may be applied as an over-the-top or directed spray to dormant nonbearing grape plantings. The use of a low-pressure sprayer is suggested. <b>DO NOT</b> apply over-the-top to grape plantings that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, injury from previously applied pesticides, or injury due to insects, nematodes, or diseases, as severe crop injury may result.
Postemergence (broadcast application)  (banded application)	1 – 3 (0.5 – 1.5 lb ai)  1 – 4 (0.5 – 2.0 lb ai)	Apply in a spray volume of 40 or more gallons per acre. For optimum control, apply when weeds are at the seedling stage of growth.  The lower rate in the rate range (1 pint or 0.5 lb ai per acre) is specified for the control of susceptible seedling weeds in the early postemergence stage up to the 4-leaf stage. Higher rates (up to 3 pints or 1.5 lb ai per acre) may be used for weeds up to the 6-leaf stage. Applications to weeds beyond the 6-leaf stage may result in partial control.
<p><b>Tank Mixing:</b> Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. See labels of tank mix partners to determine suitability and use rates for various crops.</p> <ul style="list-style-type: none"> <li>• <b>Postemergence:</b> For broader spectrum postemergence control of listed grass and broadleaf weeds, <b>A229.02</b> may be applied in tank mix with paraquat or glyphosate. These herbicides may also be added to preemergence tank mixes for enhanced control of existing weeds.</li> <li>• <b>Preemergence:</b> For broad-spectrum preemergence control of susceptible grass and broadleaf weeds in listed tree fruit, nut or vine plantings, <b>A229.02</b> may be applied in tank mix with napropamide (Devrinol herbicide, 70506-34), diuron, pronamide (Kerb herbicide, 62719-578), simazine, norflurazon (Solicam herbicide, 61842-41) or oryzalin.</li> </ul>		
<p><b>Chemigation (All States):</b> For dormant season application using sprinkler (low-volume (micro sprinkler), drip (trickle), and flood (basin) irrigation systems, apply <b>A229.02</b> at the specified rate per acre. Follow applicable directions in the Chemigation section of this label when making applications using irrigation systems.</p>		
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• <b>A229.02</b> or any of the combinations listed on this label must be applied to only healthy growing trees or vines.</li> <li>• Avoid direct plant contact. Direct spray toward the base of tree or vines unless specific use directions allow over-the-top application.</li> </ul>		

**Crop-Specific Restrictions:**

- In all states, unless otherwise specified, **DO NOT** apply **A229.02** during the period between bud swell and completion of final harvest or when fruit/nuts are present. **A229.02** may be applied upon completion of final harvest.
- **In Arizona and California, A229.02 may be applied during the period following completion of final harvest up to February 15 (February 1st in the Coachella Valley, California). Applications made after these calendar dates, but prior to bud swell, may result in significant crop injury and are the responsibility of the user.**
- For banded applications, **DO NOT** apply more than 4 pints of **A229.02** (2.0 lb ai) per acre per year within the treated band.
- **DO NOT** apply more than 3 pints (1.5 lb ai) per acre per year on a broadcast basis.
- **DO NOT** apply more than 4 pints (2.0 lb ai) per acre per application.
- **DO NOT** make more than 3 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 2 weeks
- **DO NOT** apply to grapes or kiwi established less than 3 years unless vines are on a trellis wire a minimum of 3 feet above the soil surface.
- **DO NOT** apply to grapes or kiwi that are not staked or trellised unless vines are free standing.

**Key Weeds Controlled (Arizona and California):**

Preemergence	Postemergence
burclover	cheeseweed (malva)
cheeseweed (malva)	fiddleneck, coast
fiddleneck, coast	filaree, broadleaf <sup>1</sup>
filaree, broadleaf	filaree, redstem <sup>1</sup>
filaree, redstem	filaree, whitestem <sup>1</sup>
filaree, whitestem	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	nettle, burning
lambsquarters, common	pigweed, redroot
lettuce, prickly	redmaids
pigweed, redroot	shepherdspurse
purslane, common	sowthistle, annual
redmaids	
rocket, London	
shepherdspurse	
sowthistle, annual	

<sup>1</sup>**A229.02** at the 3-pint rate will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

**Key Weeds Controlled (All Other States Except Arizona and California):**

Preemergence	Postemergence
camphorweed	balsamapple
cudweed, narrowleaf	cocklebur, common
eveningprimrose, cutleaf <sup>1</sup>	cudweed, narrowleaf <sup>2</sup>
groundcherry, cutleaf	eveningprimrose, cutleaf <sup>1</sup>
jimsonweed	groundcherry, cutleaf
lambsquarters, common	groundcherry, Wright
nightshade, American black	jimsonweed
nightshade, black	lambsquarters, common

pepperweed, Virginia pigweed, redroot poinsettia, wild sida, prickly smartweed, Pennsylvania sowthistle, annual spurge, prostrate spurge, spotted velvetleaf	morningglory, annual nightshade, American black nightshade, black pepperweed, Virginia pigweed, redroot poinsettia, wild purslane, common sesbania, hemp shepherdspurse sida, prickly (teaweed) smartweed, Pennsylvania sowthistle, annual velvetleaf
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<sup>1</sup>Highest rate and/or multiple applications may be required for acceptable control.

<sup>2</sup>Maximum 0.5-inch diameter.

### Apricots, Nectarines, Olives, Peaches, Plums, and Prunes (Non-Dormant Application) California Only

Weed Control	Rate (pt/acre)	Specific Use Directions
Postemergence	0.25 – 0.5 (0.125 - 0.25 lb ai)	<p><b>A229.02</b> for postemergence suppression of the target weeds at 0.25 to 0.5 pint (0.125 to 0.25 lbs ai) per broadcast acre when applied to susceptible weed seedlings less than 4 inches in height. Repeat applications may be required.</p> <p><b>DO NOT</b> exceed 3 pints (1.5 lbs ai) of <b>A229.02</b> during the nondormant stage of apricots, nectarines, olives, peaches, plums and prunes.</p> <p>For a broader spectrum of grass weeds and broad leaf weeds control in the tree row middles, a tank mixture of <b>A229.02</b> with either paraquat or glyphosate (Glyphogan) can be used. Read and follow the labeling of either the paraquat or glyphosate (Glyphogan) pesticide product which is to be tank mixed with <b>A229.02</b>.</p> <p>Direct spray toward the base of the tree. Avoid direct herbicide contact with foliage and fruit</p>
<p><b>Apricots, Nectarines, Olives, Peaches, Plums and Prunes in California Nondormant Application Specific Use Restrictions</b></p> <ul style="list-style-type: none"> <li>• Read and observe all label directions before using. When tank mixing, always read all individual manufacturer labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.</li> <li>• When applied as a non-dormant treatment, <b>A229.02</b> can only be applied to apricots, peaches, nectarines, plums and prunes after May 1. <b>A229.02</b> can only be applied as a non-dormant treatment to olives after bloom.</li> <li>• <b>DO NOT</b> apply <b>A229.02</b> within 14 days of harvest of fruit.</li> </ul>		

- **DO NOT** apply more than 3 pints (1.5 lbs ai) per broadcast acre per year of **A229.02** during the non-dormant season.
- **DO NOT** apply more than 0.5 pints (0.25 lb ai) per acre per application postemergence.
- **DO NOT** make more than 4 applications per year when using reduced application rates.
- Apply **A229.02** only to healthy trees.

#### **Product Information**

**A229.02** provides effective postemergence control of cheeseweed and other young broad leaf weed seedlings listed below in non-dormant apricots, nectarines, olives, peaches, plums and prunes. For enhanced post-emergence activity against these target weeds as well as other weed species, tank mixtures of **A229.02** with either paraquat (Parazone 3SL) or glyphosate (Glyphogan, 66222-105) can be used to increase the spectrum of weed control by either of these tank mix partners. Compatibility of each mixture must be established before tank mixing and application must be applied by ground equipment. Follow all precautions and restrictions on the labeling of the products to be tank mixed.

#### **Method of Application**

**Ground Application:** Apply a minimum spray volume of 10 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles at 20 to 40 psi. An off-center nozzle positioned at the end of the boom can be used. Spray equipment calibrated carefully before each use.

**Chemigation Application:** Apply this product only through flood (basin) irrigation systems, or low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For additional information on these systems, see the APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION section of this label.

**Cultural Considerations for All Applications:** In order to provide maximum effectiveness of preemergence activity of **A229.02**, the berm or soil surface level, smooth, and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide applications.

Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of **A229.02**. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment. The best results are from applications to established berms or soil surfaces that are left undisturbed during the time period for which weed control is desired.

**Grapes (Non-Dormant Application)  
(California Only)**

**A229.02** may be applied as a directed spray or, for supplemental preemergence weed control, through low-volume sprinkler (micro sprinkler) or drip irrigation systems for control or suppression of listed broadleaf weeds in non-dormant grapes (raisin and wine grapes only). **A229.02** may also be applied to all grapes (raisin, table, and wine) as a dormant season application. Refer to Tree Fruit/Nut/Vine Crops (Dormant Application) section above for use directions for dormant season application to grapes.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1 (0.5 lb ai)	<p><b>A229.02</b> may be applied preemergence or postemergence to weeds either as a directed spray in a minimum spray volume of 20 gallons per acre or through low-volume sprinkler (micro-sprinkler) or drip irrigation systems. Repeat applications may be required. Applications may be made from completion of bloom up to 14 days before to harvest.</p> <p>When applied as a postemergence directed spray, add 1 quart 80% active nonionic surfactant cleared for application to growing crops per 100 gallons of spray. Sprays must be directed to the soil and the base of vines.</p>
Postemergence	0.5 – 1 (0.25 – 0.5 lb ai)	
<p><b>Tank Mixing:</b></p> <ul style="list-style-type: none"> <li>When applied as a directed postemergence spray using ground equipment, <b>A229.02</b> may be applied in tank mix with paraquat or glyphosate in a minimum spray volume of 10 gallons per acre. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank-mixed products, the most restrictive label limitations must apply.</li> <li>It is the pesticide user’s responsibility to ensure that all products are registered for 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.</li> </ul>		
<p><b>Chemigation:</b> Follow chemigation instructions in Product Information section.</p> <ul style="list-style-type: none"> <li><b>Low Volume Sprinkler (Microsprinkler) and Drip (Trickle) Irrigation:</b> Apply only through low-volume sprinkler or drip systems designed to uniformly distribute irrigation water beneath the canopy. Meter <b>A229.02</b> at a continuous rate during the middle 1/3 of the irrigation period and discontinue application during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. Use of <b>A229.02</b> through low-volume sprinklers or drip emitters helps to reduce the "ring effect" of weed escapes in areas around sprinklers or emitters where previously applied broadcast or directed treatments begin to break down.</li> </ul>		
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li><b>Crop Resistance:</b> The use of <b>A229.02</b> may result in varying degrees of injury to non-dormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift, soil contact) exposure. This injury may result in necrosis, reddening, cupping or crinkling of grape leaves. The grape plant will continue to grow normally. Grape leaves that are immature or expanding at the time of contact with <b>A229.02</b> are the most susceptible to foliage injury. Grapes may exhibit some small blemishes (spots or flecks) on the fruit.</li> </ul>		



**Crop-Specific Use Restrictions:**

- **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per application.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per year as a result of multiple applications in any given area (broadcast, banded, or within the wetted area of the low-volume sprinkler or drip irrigation system).
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** apply within 14 days of harvest.
- **Retreatment Interval:** 4 weeks
- **DO NOT** initiate application of **A229.02** in non-dormant grapes until the completion of the bloom period.
- **DO NOT** apply to grapes established less than 3 years unless vines are either on a trellis wire a minimum of 3 feet above the soil surface, or protected by grow tubes.
- **A229.02** must be applied only by ground application equipment of through low-volume sprinkler (microsprinkler) or drip (trickle) irrigation systems.
- Apply **A229.02** as a non-dormant application to wine grapes or raisin grapes only.
- **A229.02** is phytotoxic to plant foliage. Avoid drift to all other crops and nontarget areas. **DO NOT** apply when weather conditions favor drift.

**Key Weeds Controlled or Suppressed:**

Preemergence	Postemergence
burclover	cheeseweed (malva)
cheeseweed, malva	fiddleneck, coast
fiddleneck, coast	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	morningglory species, annual
lambquarters, common	mustard, black
minerslettuce	nettle, burning
mustard, black	nightshade, black
nettle, burning	pigweed, redroot
nightshade, black	purslane, common
pigweed, redroot	redmaids
purslane, common	rocket, London
redmaids	sowthistle, annual
rocket, London	
sowthistle, annual	

**Sucker Control in Non-Dormant Grapes  
(Washington and Oregon Only)  
(Grapes for Wine and Processing Only)**

Application Timing for Sucker Control	Rate (pt/acre)	Specific Use Directions
Grape suckers less than 12 inches in length	0.5 – 1 (0.25 – 0.5 lb ai)	Apply <b>A229.02</b> in a three-foot band directed towards to newly emerging suckers at the base of the grapevine. The highest rate and/or a second application may be required to achieve an acceptable level of control/suppression of grape suckers. Avoid spray contact on flowers, grape clusters, or fruit. Use mounted nozzles to deliver the spray solution. Thorough spray coverage of sucker growth is essential for optimal activity. Use a spray volume of 50 or more gallons per acre (broadcast basis).

**Tank Mixing:** For enhanced postemergence sucker activity, a tank mixture of **A229.02** with either glufosinate or paraquat can be used. Apply at the specified rates and growth stages in a manner describe on the respective labels. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank-mixed products, the most restrictive label limitations must apply.

It is the pesticide user’s responsibility to ensure that all products are registered for 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.

**Precautions:**

- The use of **A229.02** may result in varying degrees of injury to non-dormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift or soil contact) exposure. This injury may result in necrosis, reddening, cupping or crinkling of grape leaves. The grape plant will continue to grow normally. Leaves that are immature or expanding at the time of contact with **A229.02** are the most susceptible to injury. Grape fruit may exhibit some small blemishes (spots or flecks) on the fruit.

**Crop-Specific Restrictions:**

- **DO NOT** apply more than 1 pint of **A229.02** (0.5 lb ai) per acre per application.
- **DO NOT** make more than 4 applications per acre per year.
- **DO NOT** apply more than (dormant and non-dormant) 3 pints of **A229.02**(1.5 lb ai) per acre per year as a result of multiple applications in any give area (broadcast or banded).
- **Retreatment Interval:** 8 weeks
- **A229.02** must be applied only by ground application equipment.
- Apply **A229.02** as a non-dormant application for sucker control only to wine or processed grapes.
- **DO NOT** apply **A229.02** within 60 days of harvest.

**Pistachios (California and Arizona Only), Walnuts (California and Arizona Only), Almonds (Arizona Only)**

**(Non-Dormant Application)**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	2.5 – 3 (1.25 – 1.5 lb ai)	<b>Preemergence:</b> For residual weed control of listed weeds.
Postemergence	0.5 – 1 (0.25 – 0.5 lb ai)	<b>Postemergence (Suppression):</b> Apply to seedling weeds less than 4 inches in height. Repeat applications may be required.
	1 – 3 (0.5 – 1.5 lb ai)	<b>Postemergence (Cleanup):</b> Contact (postemergence) control for cleanup sprays and preharvest applications. Apply to seedling weeds less than 4 inches in height. Applications to weed seedlings beyond the 4-inch stage may result in partial control.

**Tank Mixing:** For broader spectrum grass and broadleaf weed control in tree row middles, **A229.02** may be tank mixed with either paraquat or glyphosate. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank-mixed products, the most restrictive label limitations must apply.

It is the pesticide user’s responsibility to ensure that all products are registered for 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.

**Chemigation:** Follow chemigation instructions in PRODUCT INFORMATION section.

**Flood (Basin) Irrigation:** For flood (basin) irrigation systems, meter continuously into the water during the entire irrigation period. Best weed control results are obtained when a uniform distribution and flow of irrigation water is maintained over level land. Irrigation water treated with **A229.02** must be contained on the treated area until the water is absorbed by the soil.

**Low Volume Sprinkler (Microsprinkler) and Drip (Trickle) Irrigation:** Apply only through low-volume sprinkler or drip systems designed to uniformly distribute irrigation water beneath the tree canopy. Applications must be made prior to weed emergence; otherwise postemergence activity may be inconsistent due to uneven coverage. Meter **A229.02** at a continuous rate during the middle 1/3 of the irrigation period and discontinue application during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. Use of **A229.02** through low-volume sprinklers or drip emitters helps to reduce the "ring effect" of weed escapes in areas around sprinklers or emitters where previously-applied broadcast or directed treatments begin to break down.

**Precautions:**

- Direct spray toward the base of trees. Avoid direct contact with foliage or nuts.
- **A229.02** must be applied only to healthy growing trees

**Crop-Specific Use Restrictions:**

- When applied as a non-dormant treatment, **A229.02** can only be applied to pistachio plantings between May and 7 days prior to harvest.
- When applied as a non-dormant treatment, **A229.02** can only be applied to almond plantings between April 1 and September 30 and to walnut plantings between May 1 and September 30.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre per application.
- **DO NOT** apply more than 3 pints of **A229.02** (1.5 lb ai) per acre during the non-dormant season.
- **DO NOT** make more than 3 applications per acre per year when using reduced application rates.
- **Retreatment Interval:** 2 weeks
- **DO NOT** apply **A229.02** within 7 days of harvest of pistachios.
- **DO NOT** apply **A229.02** within 30 days of harvest of almonds.
- **DO NOT** apply **A229.02** within 7 days of harvest of walnuts.

**Key Weeds Suppressed and/or Controlled**

cheeseweed (malva)	morningglory species, annual
fiddleneck, coast	mustard, black
filaree, broadleaf	nettle, burning
filaree, redstem	pigweed, redroot
filaree, whitestem	purslane, common
groundsel, common	redmaids
henbit	rocket, London
minerslettuce	sowthistle, annual

**Additional Weeds Controlled in Tank Mix with Glyphosate or Paraquat**

barnyardgrass	horseweed (marestail)
bluegrass, annual	rocket, London
chickweed, common	ryegrass, Italian

**Almonds (California Only)  
(Non-Dormant Application)**

**DOSAGE**

**A229.02** may be applied broadcast at a rate of no more than 2.5 pts/acre (1.25 lbs ai) before February 15, and/or no more than 0.25 pt/acre (0.125 lb ai) up to 30 days before harvest, and/or no more than 0.25 pt/acre (0.125 lb ai) between 30 and 15 days before harvest. **DO NOT** apply more than 3 pints of **A229.02** or 1.5 lb oxyfluorfen ai per broadcast acre during the non-dormant season.

**Restrictions:**

**DO NOT** apply more than 2.5 pints/acre (1.25 lb ai) in a single application.

**DO NOT** apply more than 3 pints/acre (1.5 lb ai) per year.

**DO NOT** make more than 3 applications per year.

**PHI:** 15 days.

**WEEDS SUPPRESSED AND/OR CONTROLLED**

cheeseweed (malva)	morningglory species, annual
fiddleneck, coast	mustard, black
filaree, broadleaf	nettle, burning
filaree, redstem	pigweed, redroot
filaree, whitestem	purslane, common
groundsel, common	redmaids
henbit	rocket, London
minerslettuce	sowthistle, annual

**TANK MIXTURES WITH A229.02**

**IMPORTANT:** 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.

Read and observe all label directions before using. When tank mixing, read and carefully follow all applicable use directions, precautions, and limitations on the respective product labels. In interpreting all labels for the tank mixture, the most restrictive label limitations must apply.

For enhanced postemergence activity on a broader spectrum of grass and broadleaf weeds in the tree row middles, a tank mixture of **A229.02** with registered postemergence herbicides including paraquat or glyphosate (Glyphomax (62719-323), Roundup (524-445)) can be used. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective label of the tank mix partner.

**WEEDS SUPPRESSED AND/OR CONTROLLED**

barnyardgrass	horseweed (marestail)
bluegrass, annual	rocket, London
chickweed, common	ryegrass, Italian

**METHOD OF APPLICATION**

**GROUND APPLICATION:** Apply a minimum spray volume of 20 gallons of water per acre (minimum 10 gallons for **A229.02**/glyphosate (Glyphomax) tank mix). Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles

at 20 to 40 psi. An off-center nozzle positioned at the end of the boom may be desired. Spray equipment must be calibrated carefully before each use.

**CHEMIGATION APPLICATION:** Apply this product only through flood (basin) irrigation systems, or low volume sprinkler (micro sprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For flood (basin) irrigation systems, **A229.02** must be continuously metered into the water during the entire irrigation period. Agitation in the pesticide supply tank is suggested. Best weed control results are obtained when a uniform distribution and flow of irrigation water is maintained over level land. **A229.02** may be applied through low-volume sprinkler (micro sprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. The application of **A229.02** is intended to supplement the preemergence weed control requirements of a broadcast (or directed) weed control program where weed emergence is anticipated within the wetted area of a low-volume sprinkler (micro sprinkler) or drip (trickle) irrigation system. Applications must be made prior to weed emergence since postemergence activity will be inconsistent due to partial coverage. Meter **A229.02** at a continuous rate during the middle 1/3 of the irrigation period to allow for uniform distribution to the soil surface. For best results, **A229.02** must be uniformly positioned across the wetted area to help reduce the "ring effect" of weed escapes, as other products begin to break down around the emitter. Continue irrigation during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. Irrigation water treated with **A229.02** must be contained on the treated area until the water is absorbed by the soil. **DO NOT** apply when wind speed favor drift beyond the area intended for treatment.

**CULTURAL CONSIDERATIONS FOR ALL APPLICATIONS:** In order to provide maximum effectiveness of preemergence activity of **A229.02**, the berm or soil surface must be level, smooth and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Leaves and trash may be removed by blowing the area to be treated or by thoroughly mixing trash into the soil through cultivation prior to herbicide application.

Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of **A229.02**. Cutting water furrow or cultivation that mixes untreated soil into treated areas will also reduce the effectiveness of the treatment. The best results are from applications to established berms or soil surfaces that are left undisturbed during the time period for which weed control is desired.

### Windbreaks and Shelterbelts

(For Use Only in Minnesota, North Dakota, South Dakota and Wyoming)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 – 3 (1.0 – 1.5 lb ai)	<p>Apply <b>A229.02</b> may be applied as a broadcast, banded or post-directed spray. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Pre-transplant applications must be made after completion of soil preparation but prior to transplanting. Transplanting must be completed with minimal soil disturbance. For optimum weed control results, treated soil surfaces must be left undisturbed during the time period for which weed control is desired.</p> <p><b>Postemergence Weed Control:</b> For best results, apply before the 4-leaf stage for broadleaf weeds or 2-leaf stage for grass weeds.</p> <p><b>Conifers:</b> <b>A229.02</b> can be applied pre-transplant, post-directed or postemergence (over-the-top) to conifers. Postemergence or post-directed applications must be applied prior to budbreak or</p>

		<p>after new growth foliage has hardened off and new terminal buds have formed.</p> <p><b>Deciduous Hardwoods:</b> <b>A229.02</b> has exhibited selectivity to many deciduous species when applied pre-transplant or as a post-directed spray prior to budbreak.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• <b>Important:</b> Some varieties or cultivars of conifers or deciduous species listed may be susceptible to <b>A229.02</b>. Care must be taken to ensure that the particular variety to be sprayed with <b>A229.02</b> is tolerant. For unfamiliar species, it is suggested that <b>A229.02</b> be tested on a limited number of plants prior to large-scale application.</li> <li>• Occasionally after the use of <b>A229.02</b>, a spotting, crinkling or flecking may appear on the leaves of the deciduous species. Leaves that receive direct or indirect (drift) spray contact will be injured. Deciduous species typically rapidly outgrow these symptoms and develop normally.</li> <li>• Application after budbreak may result in injury to deciduous species. If non-dormant application is required, apply only after foliage has fully expanded and hardened off. Avoid direct or indirect spray contact with the foliage by applying to the soil surface as a directed spray.</li> <li>• Apply <b>A229.02</b> only to healthy deciduous and/or conifer trees. <b>DO NOT</b> apply <b>A229.02</b> to conifers or deciduous trees that have been weakened or under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously applied pesticides, soil insects, or winter injury, as severe injury may result.</li> </ul>		
<p><b>Specific Use Restrictions for Shelterbelts:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 3 pints of <b>A229.02</b> (1.5 lb ai) per acre per application</li> <li>• <b>DO NOT</b> apply more than 9 pints of <b>A229.02</b> (4.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year when using reduced application rates.</li> <li>• <b>Retreatment Interval:</b> 8 weeks</li> </ul>		

**Key Broadleaf Weeds Controlled:**

buckwheat, wild	mustard, wild
burclover	nettle, burning
carpetweed	nightshade, black
dock, curly	nightshade, hairy
groundcherry, cutleaf	oats, wild
groundcherry, Wright	orach, red
groundsel, common	pepperweed, yellow flower
henbit	pigweed, prostrate
jimsonweed	pigweed, redroot
knotweed, prostrate	purslane, common
kochia	rocket, London
ladysthumb	shepherdspurse <sup>1</sup>
lambsquarters, common	smartweed, Pennsylvania
lettuce, prickly	sowthistle, annual
mallow, little	tansymustard
mayweed	thistle, Russian (seedling)
mustard, blue	velvetleaf
mustard, tumble	

<sup>1</sup>The highest rate or multiple applications may be required for acceptable control.

**Key Grasses Controlled:**

barnyardgrass	foxtail, giant
bluegrass, annual	goosegrass

crabgrass, large	witchgrass
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**A229.02 may be applied to numerous conifer and deciduous species, including the following:**

**Conifer Species**

Common Name	Scientific Name
douglas-fir	<i>Pseudotsuaa menziesii</i>
<b>fir</b> grand fraser noble	<i>Abies grandis</i> <i>Abies fraseri</i> <i>Abies procera</i>
<b>hemlock</b> Eastern hemlock Western hemlock	<i>Tsuga canadensis</i> <i>Tsuga heterophylla</i>
<b>pine</b> Austrian Eastern white jack Himalayan loblolly lodgepole longleaf monterey mugo ponderosa scotch shortleaf slash Virginia	<i>Pinus nigra</i> <i>Pinus strobus</i> <i>Pinus banksiana</i> <i>Pinus griffithii</i> <i>Pinus taeda</i> <i>Pinus contorta</i> <i>Pinus palustris</i> <i>Pinus radiata</i> <i>Pinus mugo</i> <i>Pinus ponderosa</i> <i>Pinus sylvestris</i> <i>Pinus echinata</i> <i>Pinus elliotii</i> <i>Pinus virginiana</i>
<b>spruce</b> blue dwarf Alberta Norway Sitka	<i>Picea pungens</i> <i>Picea glauca Conica</i> <i>Picea abies</i> <i>Picea sitchensis</i>
<b>Arborvitae</b>	<i>Thuja occidentalis</i> <i>Thuja orientalis</i>
<b>juniper</b>	<i>Juniperus chinensis</i> <i>Juniperus horizontalis</i> <i>Juniperus procumbens</i> <i>Juniperus sabina</i> <i>Junioerus scooulorum</i>
<b>red cedar</b>	<i>Juniperus virginiana</i>
<b>yew</b>	<i>Taxus spp.</i>

**Deciduous Hardwood Species**

Common Name	Scientific Name
ash	<i>Fraxinus spp.</i>
crabapple	<i>Malus spp.</i>
eucalyptus	<i>Eucalyptus spp.</i>
lilac	<i>Syringa vulgaris</i>
maple, black	<i>Acer nigrum</i>
oak, Northern red	<i>Quercus rubra</i>
olive, Russian	<i>Elaeagnus angustifolia</i>
poplar (cottonwood)	<i>Populus spp.</i>

sweetgum	<i>Liquidambar styraciflua</i>
sycamore	<i>Platanus occidentalis</i>
walnut, black	<i>Juglans nigra</i>

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep from freezing. Store above 32°F.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:**

**[For plastic containers ≤ 5 gallons: Nonrefillable Container: 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

**[For plastic containers > 5 gallons: Nonrefillable container. 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 ¼ full with water. Recap 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

### LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

[A229.02] is a trademark of Atticus, LLC

[GoalTender® Herbicide] is a registered trademark of Nutrichem Co, LTD and used under exclusive license by Nufarm Americas, Inc.



**{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

See inside label booklet for additional Precautionary Statements and Directions for Use.

**A229.02**

[*Alternate Brand Name: ScrolLOVR*]

[A229.02] is not manufactured, or distributed by Nufarms Americas, Inc., seller of [GoalTender® Herbicide].

Contains oxyfluorfen, the active ingredient used in [GoalTender® Herbicide].

Manufactured for:  
**Atticus, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

EPA Reg. No.: 91234-XX  
EPA Est. No.: \_\_\_\_\_  
NET CONTENTS: \_\_\_\_\_

[Use Directions For: artichokes (globe), broccoli/cabbage/cauliflower, cacao, citrus (nonbearing), coffee, conifer (seedbeds, transplants, container stock) and selected deciduous trees, corn, cotton, cottonwood, eucalyptus, fallow bed, (cotton/soybeans) fallow land, garbanzo beans, garlic, guava, horseradish, jojoba, mint (spearmint and peppermint tops), onions, onions grown for seed, papaya, soybeans, taro, tree fruit/nut/vine]

<b>ACTIVE INGREDIENT:</b>	<b>(% by weight)</b>
oxyfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy)4-(trifluoromethyl)benzene.....	41%
<b>OTHER INGREDIENTS:</b> .....	<b>59%</b>
<b>TOTAL</b> .....	<b>100%</b>

Contains 4 pounds active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

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.)

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Avoid contact with skin or clothing.

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates and wildlife. **DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. See Directions for Use for additional restrictions. **DO NOT** contaminate water when disposing of equipment wash water or rinseate.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Keep from freezing. Store above 32°F.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:**

[For plastic containers ≤ 5 gallons: Nonrefillable Container: **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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

[For plastic containers > 5 gallons: Nonrefillable container. **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 ¼ full with water. Recap 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]