



U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

93930-57

Date of Issuance:

5/6/21

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Avalaire Fomesafen 2.87

Name and Address of Registrant (include ZIP Code):

Avalaire, LLC  
1204 Village Market Place, #173  
Morrisville, NC 27560

**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.

Signature of Approving Official:

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch, Registration Division (7505P)  
Office of Pesticide Programs

Date:

5/6/21

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 93930-57.”
3. 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 02/26/2021

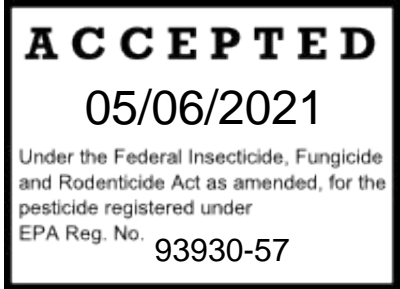
If you have any questions, please contact Sayed Islam by phone at 703-347-0290, or via email at [islam.sayed@epa.gov](mailto:islam.sayed@epa.gov)



For

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure



{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}

# Avalaire Fomesafen 2.87<sup>TM</sup>

[Alternate Brand Name: Insidious<sup>TM</sup>]

[Contains fomesafen, the active ingredient used in Sinister<sup>TM</sup>]

[For Control of Certain Weeds in Cotton, Dry Beans, Potatoes, Snap Beans, Succulent Soybeans  
(Edamame) and Soybeans]

ACTIVE INGREDIENT:	(% by weight)
Fomesafen:	
5-[2 -chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide.....	28.65%
<b>OTHER INGREDIENTS:</b> .....	<b>71.35%</b>
<b>TOTAL</b> .....	<b>100.0%</b>

Contains 2.87 lbs of fomesafen per gallon.

**KEEP OUT OF REACH OF CHILDREN**

## WARNING/AVISO

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

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

[Avalaire Fomesafen 2.87] is not manufactured, or distributed by Helena Agri-Enterprises, LLC, seller of [Sinister<sup>TM</sup>].

EPA Reg. No. 93930-XX

EPA Est. No.  
Net Contents:

Manufactured for:  
**Avalaire, LLC**  
1204 Village Market Place, #173  
Morrisville, NC 27560

## {LANGUAGE INSIDE BOOKLET}

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage	
<b>HOT LINE NUMBER</b>	
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 <b>1-844-685-9173</b> 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)**

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

Causes substantial but temporary eye injury. Harmful if swallowed. **DO NOT** get in eyes or on clothing. Wear protective eye wear (goggles, face shield, or safety glasses). Remove and wash contaminated clothing before reuse. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves including barrier laminate or Viton®
- Shoes plus socks
- Protective eyewear

#### **User Safety Recommendations**

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls

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

### User Safety Recommendations

#### Users should:

- 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

For Terrestrial Uses: **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. **DO NOT** apply when weather conditions favor drift from target area.

### NON-TARGET ORGANISM ADVISORY:

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

### GROUNDWATER ADVISORY

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where permeable, particularly where the water table is shallow.

### SURFACE WATER ADVISORY

This product may impact surface water quality due to spray drift and runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months after application. A level, well- maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of fomesafen from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Drift and run-off may be hazardous to aquatic organisms in water adjacent to treated areas. See the manual for "Conservation Buffers to Reduce Pesticide Losses" at the following internet address: <http://www.wsi.nrcs.usda.gov/products/W2Q/pest/core4.html>.

## DIRECTIONS FOR USE

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

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

- Coveralls
- Chemical-resistant gloves including barrier laminate or Viton
- Shoes plus socks
- Protective eyewear

### PRODUCT INFORMATION

Read all label directions before using.

**AVALAIRE FOMESAFEN 2.87** is a selective herbicide which may be applied pre plant surface, preemergence and/or postemergence for control or partial control of broad leaf weeds, grasses and sedges in cotton, dry beans, potatoes, snap beans and soybeans.

#### Preplant Surface and Preemergence Applications

Certain germinating broad leaf weeds, grasses and sedges can be controlled or partially controlled by soil residual activity from either preplant surface or preemergence applications of **AVALAIRE FOMESAFEN 2.87**. Moisture is necessary to activate **AVALAIRE FOMESAFEN 2.87** in soil for residual weed control. Dry weather following applications of **AVALAIRE FOMESAFEN 2.87** may reduce effectiveness. When adequate moisture is not received after a **AVALAIRE FOMESAFEN 2.87** application, weed control may be improved by overhead irrigation with at least a ½ inch of water.

#### Postemergence Applications

**AVALAIRE FOMESAFEN 2.87** is generally most effective when used postemergence, working through contact action. Therefore, emerged weeds must have thorough spray coverage for effective control. Best broad-spectrum postemergence control of susceptible broadleaf weeds is obtained when **AVALAIRE FOMESAFEN 2.87** is applied early to actively growing weeds. This usually occurs within 14 to 28 days after planting. Refer to the weed control tables for specific recommendations on weed growth stages and rates. Some bronzing, crinkling or spotting *at* labeled crop leaves may occur following postemergence applications, but labeled crops soon outgrow these effects and develop normally.

#### Soil Characteristics

Application of **AVALAIRE FOMESAFEN 2.87** to soils with high organic matter and/or high clay content may require higher rates than soils with low organic matter and/or low clay content. Refer to the **AVALAIRE FOMESAFEN 2.87** Regional Use Map, weed control tables, and specific crop use sections for recommendations on use rates based on soil texture.

#### Environmental and Agronomic Conditions

Always apply **AVALAIRE FOMESAFEN 2.87** under favorable environmental conditions that promote active weed growth. Avoid applying **AVALAIRE FOMESAFEN 2.87** to weeds or labeled crops which are under stress from drought, extreme temperatures, excessive water, low humidity, low soil fertility, mechanical or chemical injury as reduced

weed control and/or increased crop injury may result.

#### **Rainfastness**

**AVALAIRE FOMESAFEN 2.87** requires a 1 hour rain-free period for best results when applied postemergence.

#### **Cultivation**

Cultivation prior to postemergence application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying **AVALAIRE FOMESAFEN 2.87** may assist weed control.

#### **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, **AVALAIRE FOMESAFEN 2.87** is a group 14 herbicide, any weed population may contain or develop plants naturally resistant to **AVALAIRE FOMESAFEN 2.87** and other group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies must be followed.

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

- Rotate the use of **AVALAIRE FOMESAFEN 2.87** or other Group 14 herbicide within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods) cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method 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 984-465-4800.

Fields must be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.

Fields must be scouted after application to verify that the treatment was effective.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Report any incidence of non-performance of this product against a particular weed species to your Atticus, LLC representative or call 984-465-4800. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

Plant into weed-free fields and keep fields as weed-free as possible.

To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices including mechanical cultivation, biological management practices, and crop rotation.

Fields with difficult to control weeds must be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.

To the extent possible **DO NOT** allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seedbank.

Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.

Prevent an influx of weeds into the field by managing field borders.

Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program must consider all of the weeds present.

Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.

Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.

Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. **DO NOT** use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

If resistance is suspected, treat weed escapes with an herbicide with different MOA or use non-chemical methods to remove escapes.

Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.



## Mandatory Spray Drift

### Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Ground Applications:

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

## Spray Drift Advisories

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

### **IMPORTANCE OF DROPLET SIZE**

- An effective way to reduce 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 must 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 must remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT - AIRCRAFT**

- Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **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.

#### **Boom-less Ground Applications:**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### **Handheld Technology Applications:**

- Take precautions to minimize spray drift.

### **APPLICATION DIRECTIONS**

#### **Spray Additives**

Only spray additives cleared for use on growing crops under 40 CFR 180.1001 must be used in spray mixture.

#### **For Postemergence Applications One of The Following May Be Added Except in Tank Mix With Products Prohibiting Spray Additives:**

**Nonionic Surfactant (NIS)** - Use NIS containing at least 75% surface active agent at 0.25 to 0.5% v/v (1-2 qts. /100 gals.) of the finished spray volume.

**Crop Oil Concentrate (COC)** - Use a nonphytotoxic COC containing 15-20% approved emulsifier, at 0.5- 1 % v/v (0.5-1 gal. /100 gals.) of the finished spray volume. COC can improve weed control but may slightly reduce crop resistance.

**Other Adjuvants** - Adjuvants other than COC or NIS may be used providing the product meets the following criteria:

1. Contains only EPA exempt ingredients.
2. Is nonphytotoxic to the target crop.
3. Is compatible in mixture. (May be established through a jar test.)
4. Is supported locally for use with **AVALAIRE FOMESAFEN 2.87** on the target crop through proven field trials and through university and extension recommendations.

**When an adjuvant or a specific adjuvant product (including a drift control agent) is to be used with this product, use a Chemical Producers and Distributors Association (CPDA) certified adjuvant.**

**Note:** No adjuvants are needed for preplant surface or preemergence applications unless **AVALAIRE FOMESAFEN 2.87** is being used in a burndown on emerged weeds.

**Recommended Mixing Order:**

1. Fill the spray tank with half the required amount of water and begin agitation.\*
2. Add dry pesticide formulations.
3. Add **AVALAIRE FOMESAFEN 2.87**.
4. Add liquid pesticide formulations.
5. Add spray adjuvant and fertilizer (if used).
6. Add the remaining water and maintain agitation throughout the spray operation.

\*Compatibility agent, 1 gallon/500 gallons of water or 0.2% v/v, may be added as needed.

**Tank-Mix Compatibility Test**

A jar test is recommended prior to tank mixing to ensure compatibility of **AVALAIRE FOMESAFEN 2.87** Herbicide with mixture partners. Add proportion amounts of tank mixture components in a clear quart jar one at a time in the recommended mixing order. Gently shake or invert capped jar and let stand for 15-30 minutes. If the mixture clumps, forms flakes, oily films or layers or other precipitates, it is not compatible and the tank mixture must not be used.

**GROUND APPLICATION**

**Preplant Surface and Preemergence Application** - Use a minimum of 10 gallons per acre. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for preplant surface or preemergence applications.

**Postemergence Application** - Use sufficient spray volume and pressure to ensure complete coverage of the target weed. A spray volume of 10-20 gallons per acre and 30-60 psi at the nozzle tip is recommended. On large weeds and/or dense foliage. Use 60 psi and a minimum of 20 gallons per acre to ensure coverage of weed foliage.

The use of flat fan nozzles will result in the most effective postemergence application of **AVALAIRE FOMESAFEN 2.87**. Use nozzles that are set up to deliver medium quality spray (ASAE Standard S-572).

**DO NOT USE FLOOD TYPE OR OTHER SPRAY NOZZLES, WHICH DELIVER COARSE, LARGE DROPLET SPRAYS.**

**BAND APPLICATIONS**

Calculate the amount of herbicide and water volume needed for band treatment by the following formulas:

$$\frac{\text{Band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{Band herbicide rate per acre}$$

$$\frac{\text{Band width in inches}}{\text{row width in inches}} \times \text{broadcast volume per acre} = \text{Band water volume per acre}$$

**Note:** Thorough weed coverage is important for postemergence band applications. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended for postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making post emergence band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept spray, reducing weed coverage resulting in less than adequate weed control.

**AERIAL APPLICATION**

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum of 5 gallons per

acre of spray mixture must be applied with a maximum of 40 PSI pressure. When foliage is dense, use a minimum of 10 gallons per acre to ensure coverage of weed foliage.

**DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM, EXCEPT CENTER PIVOT SYSTEMS.**

#### **CENTER PIVOT IRRIGATION APPLICATION**

**AVALAIRE FOMESAFEN 2.87** alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied in irrigation water preemergence (after planting but before weeds or crop emerge) at rates recommended on this label. **AVALAIRE FOMESAFEN 2.87** also may be applied postemergence to the crop and preemergence to weeds in crops where postemergence applications are allowed on this label. Follow all restrictions (height, timing, rate, etc.) to avoid illegal residues. Apply this product only through a center pivot irrigation system. **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, you should contact State Extension 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.

#### Operating Instructions

- 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 distributions adversely affected.
- Systems must use a metering pump, including a positive displacement injection pump (e.g., diaphragm pump or piston 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.
- Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- Meter into irrigation water during entire period of water application.
- Apply in  $\frac{1}{2}$  - 1 inch of water. Use the lower water volume ( $\frac{1}{2}$  inch) on *coarser soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

*Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.*

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas

including residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas including schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public including golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of the sign must face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared.

Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 ½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

Posting required for chemigation does not replace other posting and reentry interval requirements for farm worker safety.

#### **Specific Instructions for Public Water Systems**

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of theyear.
2. Chemigation systems connected to public water systems must contain a functional, reduced- pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. 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.
5. 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.
6. 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.
7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

#### **PRECAUTIONS**

- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.
- Tank mixes of **AVALAIRE FOMESAFEN 2.87** with other pesticides, fertilizers or any other additives except as specified on this label or other approved Avalaire, LLC supplemental labels may result in tank-mix

incompatibility, unsatisfactory performance or unsatisfactory crop injury.

- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- To provide adequate coverage, it is recommended that ground speed not exceed 10 mph during application.
- Avoid drift to all other crops and nontarget areas. Crops other than those labeled may be severely injured by drift. **DO NOT** apply when wind velocity exceeds 15 mph.

## RESTRICTIONS

- **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- REGION 1\*: **DO NOT** apply more than 1.05 pints or 16.8 fl oz (0.375 pound fomesafen) per acre for a single application. A maximum of 1.05 pints or 16.8 fl oz of **AVALAIRE FOMESAFEN 2.87** (or a maximum of 0.375 lb. a.i. /A of fomesafen from any product containing fomesafen) may be applied per acre per year. **DO NOT** make more than 1 application per year.
- REGION 2\*: **DO NOT** apply more than 1.05 pints or 16.8 fl oz (0.375 pound fomesafen) per acre for a single application. A maximum of 1.05 pints or 16.8 fl oz of **AVALAIRE FOMESAFEN 2.87** (or a maximum of 0.375 lb. a.i. /A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years. **DO NOT** make more than 1 application per year.
- REGION 3\*: **DO NOT** apply more than 0.87 pint or 13.92 fl oz (0.313 pound fomesafen) per acre for a single application. A maximum of 0.87 pint or 13.92 fl oz of **AVALAIRE FOMESAFEN 2.87** (or a maximum of 0.313 lb. a.i. /A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years. **DO NOT** make more than 1 application per year.
- REGION 4\*: **DO NOT** apply more than 0.70 pint or 11.2 fl oz (0.25 pound fomesafen) per acre for a single application. A maximum of 0.70 pint or 11.2 fl oz of **AVALAIRE FOMESAFEN 2.87** (or a maximum of 0.25 lb. a.i. /A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years. **DO NOT** make more than 1 application per year.
- REGION 4a\*: **DO NOT** apply more than 0.70 pint or 11.2 fl oz (0.25 pound fomesafen) per acre for a single application. A maximum of 0.70 pint or 11.2 fl oz of **AVALAIRE FOMESAFEN 2.87** (or a maximum of 0.25 pound fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 4a. Apply only to soybeans in Region 4a. **DO NOT** apply this product after June 20th. Cumulative rainfall plus overhead irrigation must total 15 inches from the period of product application to soybean crop maturity to allow planting of rotational crops listed in this label (refer to Rotation Crop Restrictions section). If the soybean crop is lost or the required cumulative rainfall plus irrigation is not received as outlined above, plant only soybeans the following growing season. **DO NOT** make more than 1 application per year.
- REGION 5\*: **DO NOT** apply more than 0.52 pint or 8.32 fl oz (0.1875 pound fomesafen) per acre for a single application. A maximum of 0.52 pint or 8.32 fl oz of **AVALAIRE FOMESAFEN 2.87** (or a maximum of 0.1875 lb. a.i. /A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years.

**DO NOT** make more than 1 application per year.

- **DO NOT** make ground or aerial application during temperature inversions.

\*See Regional Use Map

### Replanting

If replanting is necessary in fields previously treated with **AVALAIRE FOMESAFEN 2.87**, the field may be replanted to cotton, dry beans, potatoes, snap beans or soybeans. During replanting, a minimum of tillage is recommended to preserve the herbicide barrier for effective weed control. **DO NOT** apply a second application of **AVALAIRE FOMESAFEN 2.87** or other fomesafen containing product as crop injury or illegal residues may occur in harvested crops. If tank-mix combinations were used, refer to product labels for any additional replanting instructions.

### ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying **AVALAIRE FOMESAFEN 2.87** at recommended rates:

Crop to Be Planted	Minimum Rotation Interval (After last AVALAIRE FOMESAFEN 2.87 Application)
Cotton, dry beans, potatoes, snap beans, soybeans, and succulent soybean(edamame)	0 days
Small grains including wheat, barley, rye, peanut, succulent pea, lima bean	4 months
Field Corn, sweet corn <sup>5</sup> , pepper (transplanted) <sup>1</sup> , popcorn <sup>4</sup> , pumpkin <sup>2</sup> , rice, seed corn, tomato, (transplanted) <sup>1</sup> , watermelon <sup>2</sup>	10 months
Cantaloupe <sup>2</sup> , cucumber <sup>2</sup> , edible-podded beans and peas not otherwise specified in this table, eggplant, dry pea, pepper (direct-seeded) squash <sup>2</sup> , succulent bean (other than edamame, snap bean and lima bean), tomato (direct-seeded)	12 months
Sorghum <sup>3</sup>	18 months
All other crops not listed above	18 months

<sup>1</sup> 4 months in Region 1

<sup>2</sup> 8 months in Region 1

<sup>3</sup> 10 months in Region 1

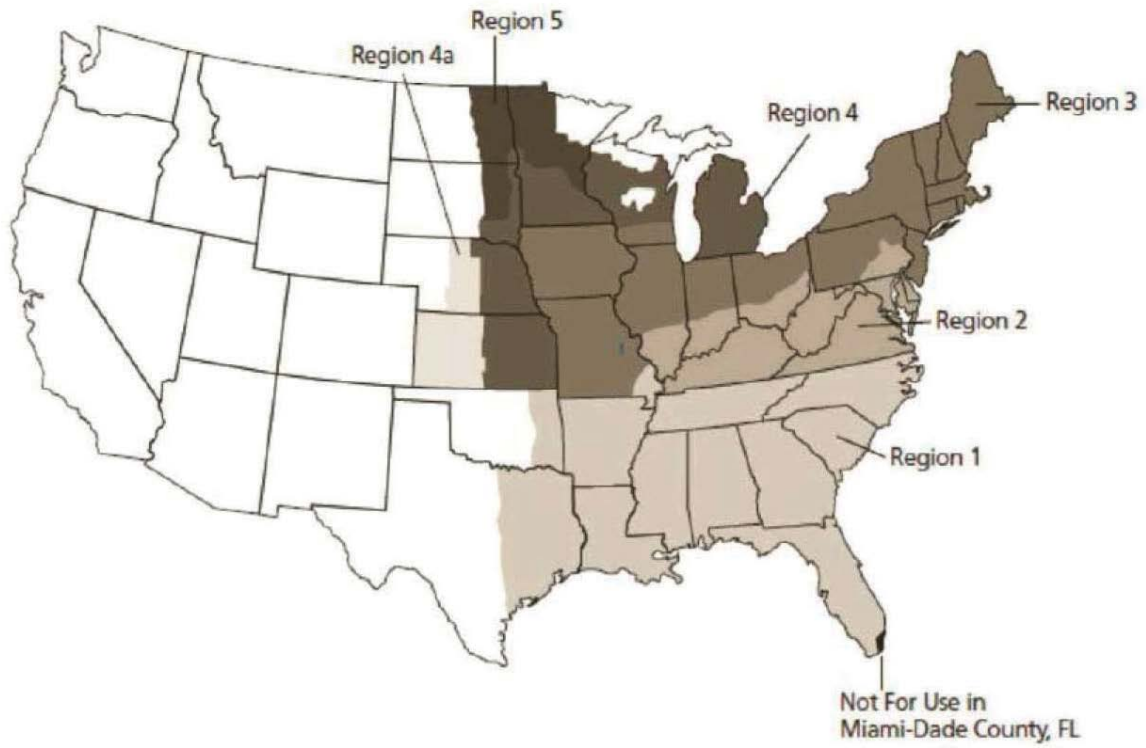
<sup>4</sup> 12 months in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, and Region 4 when applied at rates of 1 pint or 16 fl oz per acre or more.

<sup>5</sup> 18 months in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, and Region 5

**DO NOT** graze rotated small grain crops or harvest forage or straw for livestock.

USE RATES AND WEEDS CONTROLLED

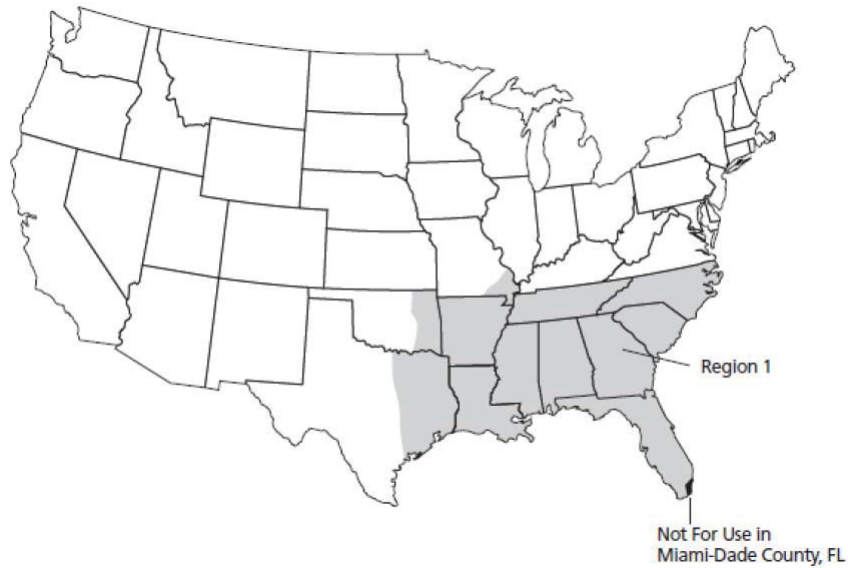
AVALAIRE FOMESAFEN 2.87 REGIONAL USE MAP





**REGION GUIDES**

**REGION 1**  
**Maximum Rate 1.05 pints or 16.8 fl oz (0.38 lb ai)/acre**  
**per year**



Includes the following states or portion of states where <b>AVALAIRE FOMESAFEN 2.87</b> may be applied:		
<b>Region 1</b>	Alabama	All areas.
	Arkansas	All areas.
	Florida	All areas except for Miami-Dade County.
	Georgia	All areas.
	Louisiana	All areas.
	Mississippi	All areas.
	Missouri	Counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne.
	North Carolina	All areas.
	Oklahoma	All areas east of U.S. Highway 75 and East of Indian Nation Parkway.
	South Carolina	All areas.
	Tennessee	All areas.
	Texas	All areas east of U.S. Highway 77 to State Road 239, including all of Calhoun County.

**REGION 2**  
**Maximum Rate 1.05 pints or 16.8 fl oz (0.38 lb ai)/acre,**  
**alternate years**



Includes the following states or portion of states where Reflex Herbicide may be applied:		
<b>Region 2</b>	Delaware	All areas.
	Illinois	All areas south of Interstate 70.
	Indiana	All areas south of Interstate 70.
	Kentucky	All areas.
	Maryland	All areas.
	Ohio	All areas south of Interstate 70.
	Pennsylvania	All areas south of Interstate 80 to the intersection of U.S. Highway 15 and east of U.S. Highway 15 and U.S. Highway 522.
	Virginia	All areas.
	West Virginia	All areas.

**REGION 3**  
**Maximum Rate 0.87 pints or 13.92 fl oz (0.31 lb ai)/acre, alternate years**



Includes the following states or portion of states where Reflex Herbicide may be applied:		
<b>Region 3</b>	Connecticut	All areas.
	Illinois	All areas north of Interstate 70.
	Indiana	All areas north of Interstate 70
	Iowa	All areas.
	Maine	All areas.
	Massachusetts	All areas.
	Missouri	All counties except for those listed in Region 1.
	Ohio	All areas north of Interstate 70.
	New Hampshire	All areas.
	New Jersey	All areas.
	New York	All areas. <b>DO NOT</b> use on potatoes in Nassau and Suffolk counties, New York.
	Pennsylvania	All areas except those listed in Region 2.
	Rhode Island	All areas.
	Vermont	All areas.
Wisconsin	All areas south of U.S. Highway 18 between Prairie Du Chien and Madison, and south of Interstate 94 between Madison and Milwaukee.	

**REGION 4**  
**Maximum Rate 0.70 pint or 11.2 fl oz (0.25 lb ai)/acre,**  
**alternate years**



Includes the following states or portion of states where Reflex Herbicide may be applied:		
<b>Region 4</b>	Kansas	All counties east of or intersected by U.S. Highway 281.
	Michigan.	Southern Peninsula
	Minnesota	All areas south of Interstate 94.
	Nebraska	All counties east of or intersected by U.S. Highway 281.
	North Dakota	All areas east of Interstate 29 from Fargo south to the South Dakota state line.
	South Dakota	All areas east of Interstate 29 from the North Dakota state line to Watertown, all areas east of Highway 81 from Watertown to Madison and all areas east and south of State Road 34 and U.S. Highway 281 to the Nebraska state line.
	Wisconsin	All areas south of Interstate 94 (except those in Region 3) from Minnesota state line to Eau Claire and south of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Burnett, Chippewa, Clark, Door, Dunn, Eau Claire, Langlade, Lincoln, Kewaunee, Marathon, Marinette, Menominee, Oconto, Polk, Price, Rusk, Sawyer, Shawano, St. Croix, Taylor, and Washburn counties. The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood.

**REGION 4a**  
**Maximum Rate 0.70 pint or 11.2 fl oz (0.25 lbs. a.i.) per acre, alternate years**



Includes the following states or portion of states where Reflex Herbicide may be applied:		
<b>Region 4a</b>	Kansas	All areas west of U.S. Highway 281 to the Colorado state line.
	Nebraska	All areas that intersect west of U.S. Highway 281 and east of U.S. Highway 83.

**REGION 5**  
**Maximum Rate 0.52 pint or 8.32 fl oz (0.19 lb ai)/acre,**  
**alternate years**



Includes the following states or portion of states where Reflex Herbicide may be applied:		
<b>Region 5</b>	Minnesota	All areas south of U.S. Highway 2 (except those areas in Region 4), plus Betrami, Clearwater, Lake of the Woods, Kittson, Marshall, Pennington, Polk, Red Lake, and Roseau.
	North Dakota	All areas east of U.S. Highway 281, except those areas in Region 4.
	South Dakota	All areas east of U.S. Highway 281, except those areas in Region 4.

**WEEDS CONTROLLED**

**TABLE 1. Weeds controlled or partially controlled\* by preemergence activity of AVALAIRE FOMESAFEN 2.87 at 0.87-1.05 pints or 13.92 – 16.8 fl oz (0.31-0.38 lb ai) per acre<sup>1</sup>.**

<b>Broadleaf Weeds Controlled</b>	<b>Soil Texture</b>	<b>Organic Matter</b>
Amaranth, Palmer	All soil types	Up to 5%
Croton, tropic <sup>2</sup>		
Eclipta		
Galinsoga spp.		
Lambsquarters, common		
Morningglory, smallflower		
Nightshade, black		
Nightshade, Eastern black		
Pigweed, redroot		
Pigweed, smooth		
Poinsettia, wild		
Purslane, common		
Ragweed, common <sup>2</sup>		
Sida, prickly <sup>2</sup>		
Starbur, bristly		
<b>Broadleaf Weeds Partially Controlled*</b>		
Anoda, spurred		
Cocklebur, common		
Morningglory, entireleaf		
Morningglory, ivyleaf		
Morningglory, pitted		
Morningglory, red/scarlet		
Morningglory, tall		
Nightshade, hairy		
Ragweed, giant		
Waterhemp, common		
<b>Sedges Partially Controlled*</b>		
Nutsedge, Yellow		

\* Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

<sup>1</sup> Use the higher end of the rate range when heavy weed populations are anticipated.

<sup>2</sup> Rates less than 1.05 or 16.8 fl oz (0.38 lb ai) pints per acre will provide only partial control of this weed.

**TABLE 2. Weeds controlled or partially controlled\* by postemergence activity of AVALAIRE FOMESAFEN 2.87**

Weed	AVALAIRE FOMESAFEN 2.87 Rate (Pints per Acre)			
	Maximum Growth Stage Controlled At			
	0.52 pt or 8.32 fl oz /acre (0.19 lb ai) No. of	0.70 pt or 11.2 fl oz /acre (0.25 lb ai) No. of	0.87 pt or 13.92 fl oz /acre (0.31 lb ai) No. of	1.05 pt or 16.8 fl oz /acre (0.38 lb ai) No. of
Anoda, Spurred	--	--	--	2
Balloonvine	--	--	2 <sup>c</sup>	2
Carpetweed	--	6" Diameter Size	Multi-leaf 6" diameter	Unlimited Size
Citron (Wild Watermelon)	--	2	2	4
Cocklebur, Common <sup>a,b</sup>	--	--	2	4
Copperleaf, Hophornbeam	--	2	2	4
Copperleaf, Virginia	--	2	2	4
Crotalaria, Showy	--	4	4	6
Croton, Tropic	--	2	2	4
Cucumber, Volunteer	--	4	4	6
Eclipta	--	2	2	4
Groundcherry, Cutleaf	--	4	4	6
Hemp <sup>b</sup>	--	--	4	6
Horsenettle <sup>b</sup>	--	2 <sup>c</sup>	2 <sup>c</sup>	2
Jimsonweed	2	4	6	8
Ladysthumb	--	2	2	4
Lambsquarters, Common <sup>c</sup>	--	2	2	2
Mexicanweed	--	2 <sup>c</sup>	2 <sup>c</sup>	2
Morningglory				
Cypressvine	--	4	4	6
Entireleaf var.	2 <sup>c</sup>	2	2	4
Ivyleaf	2 <sup>c</sup>	2	2	4
Purple Moonflower	--	2	4	4
Red (Scarlet)	--	2	2	4
Smallflower	--	2	2	4
Pitted (Smallwhite)	--	4	4	4
Tall (Common)	2 <sup>c</sup>	2	2	3
Palmleaf (Willowleaf)	--	2	2	4
Mustard, Wild	2	4	6	8
Nightshade, Black	2	4	4	4
Nutsedge, Yellow	--	--	--	Suppression Only
Pigweed				
Amaranth, Palmer	2 <sup>c</sup>	4	4	6
Amaranth, Spiny	2 <sup>c</sup>	2	2	4
Redroot	2 <sup>c</sup>	4	6	6
Smooth	2 <sup>c</sup>	4	4	6
Poinsettia, Wild	--	--	--	3
Purslane, Common	--	Multi-Leaf 6" Diameter	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	--	--	--	2



Ragweed, Common	2	4	4	6
Ragweed, Giant <sup>b</sup>	--	--	4	4
Redweed	--	--	--	3 <sup>c</sup>

**TABLE 2, continued**

Weed	AVALAIRE FOMESAFEN 2.87 Rate (Pints per Acre)			
	Maximum Growth Stage Controlled At			
	0.52 pt or 8.32 fl oz /acre (0.19 lb ai) No. of True Leaves	0.70 pt or 11.2 fl oz /acre (0.25 lb ai) No. of True Leaves	0.87 pt or 13.92 fl oz /acre (0.31 lb ai) No. of True Leaves	1.05 pt or 16.8 fl oz /acre (0.38 lb ai) No. of True Leaves
Sesbania, Hemp	--	6	6	12
Sicklepod	--	--	--	Cotyledon <sup>c</sup>
Sida, Prickly	--	--	--	Cotyledon <sup>c</sup>
Smartweed, Pennsylvania	2 <sup>c</sup>	4	4	6
Smellmelon	--	--	--	2
Spurge, Prostrate	--	--	--	1" Diameter
Spurge, Spotted	--	--	--	2 <sup>c</sup>
Starbur, Bristly	--	2	2	4
Sunflower, Common	--	--	--	2
Velvetleaf <sup>b</sup>	--	--	2	4
Venice Mallow	2	4	4	6
Witchweed	--	Multi-Leaf Up to 7"	Multi-Leaf Up to 7"	Multi-Leaf Up to 10"
Waterhemp, Common	2 <sup>c</sup>	2	2	4
Waterhemp, Tall	2 <sup>c</sup>	2	2	4
Yellow Rocket	2	4	6	6

\* Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

<sup>a</sup> **DO NOT** apply in cotyledon stage.

<sup>b</sup> For effective control of this weed it is necessary to use 1 % MSO and 2.5% UAN v/v as an adjuvant in Regions 2 and 3 (soybeans only).

<sup>c</sup> Partial control.

### SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

#### Partial Control\* of Annual Grasses

The grasses listed below may be partially controlled by preemergence applications of **AVALAIRE FOMESAFEN 2.87** at 0.70 - 1.05 pints or 11.2 – 16.8 fl oz (0.25 - 0.38 lb ai) per acre.

Crabgrass  
 Goosegrass  
 Panicum, Texas  
 Signalgrass, broadleaf

The grasses listed below may be partially controlled by postemergence applications of **AVALAIRE FOMESAFEN 2.87** at 0.70 - 1.05 pints or 11.2 – 16.8 fl oz (0.25 - 0.38 lb ai) per acre.

Barnyardgrass  
 Signalgrass, broadleaf  
 Crabgrass

Goosegrass  
 Johnsongrass, Seedling  
 Panicum, Fall

Foxtail  
Giant  
Green  
Yellow

Panicum, Texas

#### **Partial Control\* of Perennial Weeds**

Use of **AVALAIRE FOMESAFEN 2.87** postemergence at rates of 0.70 - 1.05 pints or 11.2 – 16.8 fl oz (0.25 - 0.38 lb ai) per acre will aid in suppressing the aboveground portions of the weeds listed below until crop canopy can assist in suppression.

Perennial weeds continue to regrow from underground rootstocks even if above-ground foliage is temporarily controlled or retarded. Even though **AVALAIRE FOMESAFEN 2.87** and crop competition can suppress perennial weeds for a growing season, the rootstocks will continue to live and reestablishment will occur in subsequent years.

Milkweed, Climbing  
Milkweed, Honeyvine  
Bindweed, Field  
Bindweed, Hedge  
Trumpet creeper

\* Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

### **CROP USE DIRECTIONS**

#### **COTTON**

##### **Preemergence Application**

Apply **AVALAIRE FOMESAFEN 2.87** preemergence at 0.70 - 1.05 pints or 11.2 – 16.8 fl oz (0.25 - 0.38 lb ai) per acre in cotton for control or partial control of the weeds listed in Table 1. Apply as a preemergence treatment only to coarse textured soils (sandy loam, loamy sand, sandy clay loam). **DO NOT** apply as a preemergence treatment to medium or fine-textured soils as crop injury will likely occur. To broaden the weed control spectrum, **AVALAIRE FOMESAFEN 2.87** may be tank mixed with other preemergence herbicides including Caparol® (Prometryn, 100-620), Cotoran® (fluometuron, 66222-181), Direx® (Diuron, 66222-54), Solicam® (Norflurazon, 61842-41), or Staple® (pyrithiobac-sodium, 352-613). For control of emerged weeds, **AVALAIRE FOMESAFEN 2.87** may be tank mixed with a burndown herbicide or glyphosate brands labeled in cotton. In reduced tillage plantings, **AVALAIRE FOMESAFEN 2.87** can be applied up to 14 days prior to planting or at planting with a burndown herbicide. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton plants are resistant to preemergence applications of **AVALAIRE FOMESAFEN 2.87** when applied at recommended rates and to coarse textured soil types. Some crinkling or spotting of cotton foliage or stunting may occur, especially if heavy rainfall occurs during or soon after cotton emergence, but cotton plants normally outgrow these effects and develop normally.

Cotton foliage is not resistant to **AVALAIRE FOMESAFEN 2.87**. **DO NOT** apply **AVALAIRE FOMESAFEN 2.87** over the top of emerged cotton as unacceptable cotton injury will occur.

##### **Post-Directed Application**

Apply **AVALAIRE FOMESAFEN 2.87** in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds. Apply **AVALAIRE FOMESAFEN 2.87** at 0.70- 1.05 pints or 11.2 – 16.8 fl oz (0.25 - 0.38 lb ai) per acre in a minimum of 10 gallons spray solution per acre. Applications may be made broadcast or banded. Post-directed applications of **AVALAIRE FOMESAFEN 2.87** will provide contact control of labeled emerged weeds and residual preemergence control of

labeled weeds (once activated by rainfall or irrigation). See previous label sections for a list of weeds controlled, recommended application rates, weed growth stages, and application directions.

**DO NOT** add a non-ionic surfactant or crop oil concentrate to **AVALAIRE FOMESAFEN 2.87** unless tank mixing with other post-directed herbicides that require the addition of either. **DO NOT** add liquid nitrogen (28% or similar) to **AVALAIRE FOMESAFEN 2.87**, or **AVALAIRE FOMESAFEN 2.87** tank mixes in cotton.

To broaden the *weed* control spectrum, post-directed applications of **AVALAIRE FOMESAFEN 2.87** may be tank mixed with other labeled post-directed herbicides including Caparol, DSMA, Direx, Dual MAGNUM®(S-metolachlor, 100-816), Envoke®(Trifloxysulfuron-Sodium, 100-1132), Layby™ Pro (Diuron, Linuron, 61842-20), MSMA, Sequence® (glyphosate plus S-metolachlor,100-1185), or Suprend®(Prometryn plus Trifloxysulfuron-Sodium, 100-1163).

When applied with hooded or shielded sprayers, **AVALAIRE FOMESAFEN 2.87** and **AVALAIRE FOMESAFEN 2.87** tank mixes may be applied with burndown products including Sequence or glyphosate brands labeled for in crop application in cotton. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton foliage is not resistant to **AVALAIRE FOMESAFEN 2.87** applications. Avoid contact to cotton foliage as unacceptable injury will occur. Application equipment must be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green cotton stems and foliage.

#### **Post-Directed Application Timing in Cotton**

**AVALAIRE FOMESAFEN 2.87** may be applied to cotton with at least 3 to 4 inches of brown bark stem as a post-directed application. All post-directed applications must avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for post-directed applications in cotton.

##### **Shield and Hooded Applications**

Make a precision post-directed **AVALAIRE FOMESAFEN 2.87** application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton has at least 3 to 4 inches of brown baked stem to avoid cotton injury. Use only hooded or shielded spray equipment to apply **AVALAIRE FOMESAFEN 2.87** in cotton with at least 3 to 4 inches of brown barked stem. Adjust nozzles to provide full coverage of emerged target weeds.

##### **Layby Applications**

Make a post-directed **AVALAIRE FOMESAFEN 2.87** application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment must be configured to provide full coverage of emerged target weeds.

#### **Product Use Restrictions - Cotton**

- **DO NOT** apply **AVALAIRE FOMESAFEN 2.87** later than 70 days before harvest.
- **DO NOT** apply more than 1.05 pints or 16.8 fl oz(0.38 lb ai) per acre of **AVALAIRE FOMESAFEN 2.87** in any year.
- **DO NOT** make more than one application of **AVALAIRE FOMESAFEN 2.87** per year.
- **DO NOT** add a non-ionic surfactant or crop oil concentrate to **AVALAIRE FOMESAFEN 2.87** unless tank mixing with other post-directed herbicides that require the addition of either.
- **DO NOT** add liquid nitrogen (28% or similar) to **AVALAIRE FOMESAFEN 2.87**, or **AVALAIRE FOMESAFEN 2.87**

tank mixes in cotton.

**REGION 1 Restrictions:**

- **DO NOT** apply more than 1.05 pints (0.375 pound fomesafen) per acre for a single application.

**REGION 2 Restrictions:**

- **DO NOT** apply more than 1.05 pints (0.375 pound fomesafen) per acre for a single application.

**REGION 3 Restrictions:**

- **DO NOT** apply more than 0.87 pints (0.313 pound fomesafen) per acre for a single application.
- A maximum of 0.87 pt. of HM-1151-A Herbicide (or a maximum of 0.313 lb. a.i. IA of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years.

**REGION 4 Restrictions:**

- **DO NOT** apply more than 0.70 pints (0.25 pound fomesafen) per acre for a single application.
- A maximum of 0.70 pt. of HM-1151-A Herbicide (or a maximum of 0.25 lb. a.i. /A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years.

**Special Use Directions for the Suppression of Woollyleaf Bursage (Lakeweed), *Ambrosia grayi*, in Texas**

Apply **AVALAIRE FOMESAFEN 2.87** to cultivated areas of cropland in the fall or spring as a spot treatment at a rate of 1.05 pints or 16.8 fl oz (0.38 lb ai) per acre and incorporate to a depth of 2-3 inches for suppression of woollyleaf bursage. Applications must be made with ground equipment.

The use of adjuvants, as specified under the Spray Additives section, will significantly improve the initial burndown of any emerged woollyleaf bursage, but this effect is only temporary. Therefore, an adjuvant may be used if desired, but is not necessary.

Significant suppression may not be seen until 6-8 months after application, but should then continue for at least 2 years after application. Cotton or soybeans may be planted in treated areas. Under certain conditions, significant damage may occur to cotton planted within 18 months of application. A 3-year interval from last application to planting is required for all other crops.

**DO NOT** make more than one application of **AVALAIRE FOMESAFEN 2.87** per year. **DO NOT** apply more than 1.05 pints or 16.8 fl oz (0.38 lb ai) per acre of **AVALAIRE FOMESAFEN 2.87** in any year. If two consecutive year applications are made, allow a 2 year interval before another application.

**DRY BEANS AND SNAP BEANS**

**Preplant Surface and Preemergence Application**

Apply **AVALAIRE FOMESAFEN 2.87** as a preplant surface or preemergence application in Regions 1, 2, 3, and 4 only for control or partial control of the weeds listed in Table 1. **AVALAIRE FOMESAFEN 2.87** can be applied alone, or tank mixed or followed sequentially with other labeled dry bean or snap bean herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to the Tank Mix and Sequential Application section for additional information.

NOTE: Treated soil that is splashed onto newly emerged seedlings may result in temporary crop injury but plants normally outgrow these effects and develop normally.

## Postemergence Application

Apply **AVALAIRE FOMESAFEN 2.87** as a postemergent broadcast application in Regions 1, 2, 3, 4 and 5 for control or partial control of the weeds listed in Table 2 and in the Special Use Directions for Additional Weed Problems section. Application rate depends on weed species and growth stage. Two applications may be made if necessary but not to exceed the maximum rate specified per geographic region. (Refer to map for definition of specified geographic regions). Refer to the Spray Additive section for recommended spray additives. Use of crop oil concentrate can improve weed control but may slightly reduce crop resistance.

**DO NOT** use UAN (28% or similar) or ammonium sulfate on dry beans or snap beans as severe crop injury may occur. Apply when dry beans or snap beans have at least one fully expanded trifoliate leaf.

**AVALAIRE FOMESAFEN 2.87** can be applied alone or in tank mix with other labeled dry bean or snap bean postemergence herbicides to broaden the weed control spectrum. Refer to the Tank Mix and Sequential Application section.

Some bronzing, crinkling or spotting of dry bean or snap bean leaves may occur following postemergent applications, but dry beans and snap beans soon outgrow these effects and develop normally.

## Tank Mix and Sequential Applications for Dry Beans and Snap Beans

**AVALAIRE FOMESAFEN 2.87** can be used sequentially or in tank mix with the following products:

### Dry Beans and Snap Beans

Assure II® (quizalofop-p-ethyl, 5481-646)  
Basagran® (sodium salt of bentazon, 66330-413)  
Dual MAGNUM (S-Metolachlor, 100-816)  
Poast® (sethoxydim, 7969-58)  
Prowl® (pendimethalin, 241-418)  
Pursuit® (imazaethapyr, 241-310)  
Raptor® (imazamox, 241-379)  
Treflan® (trifluralin, 10163-360)

### Dry Beans Only

Frontier® (dimethenamid, 7969-144)  
Select® (clethodim, 59639-78)  
Sonalan® (ethalfluralin, 10163-356)

Under certain conditions, the mixture of **AVALAIRE FOMESAFEN 2.87** with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the postemergence grass herbicide before applying **AVALAIRE FOMESAFEN 2.87** or **AVALAIRE FOMESAFEN 2.87** mixtures. Where **AVALAIRE FOMESAFEN 2.87** or the **AVALAIRE FOMESAFEN 2.87** mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

**NOTE:** Tank-mix applications can result in increased crop injury as compared to either product used alone.

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

## Product Use Restrictions - Dry Beans and Snap Beans

- Refer to **AVALAIRE FOMESAFEN 2.87** Regional Use Map for the maximum rate of **AVALAIRE FOMESAFEN 2.87** (or other fomesafen containing products) that may be applied in each geographic region.
- **DO NOT** make more than 1 application of **AVALAIRE FOMESAFEN 2.87** per year.
- **DO NOT** apply to any field in Regions 2, 3, 4 or 5 more than once every two years.

- **For snap beans:** **DO NOT** exceed 1.05 pints or 16.8 fl oz (0.38 lb ai) of **AVALAIRE FOMESAFEN 2.87** per acre in anyone year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **AVALAIRE FOMESAFEN 2.87** Regional Use Map). **DO NOT** graze treated areas or harvest for forage or hay. **DO NOT** utilize hay or straw for animal feed or bedding. **DO NOT** apply within 30 days of harvest.
- **For dry beans:** **DO NOT** exceed 1.05 pints or 16.8 fl oz (0.38 lb ai) of **AVALAIRE FOMESAFEN 2.87** per acre in anyone year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **AVALAIRE FOMESAFEN 2.87** Regional Use Map). **DO NOT** graze animals on green forage or stubble. **DO NOT** utilize hay or straw for animal feed or bedding. **DO NOT** apply within 45 days of harvest.

## POTATOES

Apply **AVALAIRE FOMESAFEN 2.87** at 0.70 pint or 11.2 fl oz (0.25 lb ai) per acre as a broadcast preemergence application after planting but before potato emergence for control or partial control of weeds listed in Table 1. Effectiveness will be reduced if later cultural practices expose untreated soil. For application by center pivot irrigation, see the Center Pivot Irrigation Application section of this label.

**Note:** Potato varieties may vary in their response to **AVALAIRE FOMESAFEN 2.87**. When using **AVALAIRE FOMESAFEN 2.87** for the first time on a particular variety, always determine crop resistance before using.

### Tank Mixtures with Other Products Registered for Use in Potatoes:

For preemergence applications in potatoes, **AVALAIRE FOMESAFEN 2.87** may be tank mixed with other pesticide products registered for use in this way and timing in potatoes. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels. If you have no previous experience mixing these products under your conditions, perform a compatibility test before attempting large-scale mixing (see Tank Mix Compatibility Test section of this label).

### Product Use Restrictions - Potatoes

- **DO NOT** exceed 0.70 or 11.2 fl oz (0.38 lb ai) pint per acre of **AVALAIRE FOMESAFEN 2.87** per year. Refer to **AVALAIRE FOMESAFEN 2.87** Regional Use Map for the maximum rate of **AVALAIRE FOMESAFEN 2.87** (or other fomesafen containing products) that may be applied per year or alternate year in each geographic region. **DO NOT** make more than 1 application per year.
- **DO NOT** harvest potatoes treated with **AVALAIRE FOMESAFEN 2.87** within 70 days of application.
- **DO NOT** apply **AVALAIRE FOMESAFEN 2.87** to sweet potatoes or yams.
- **DO NOT** apply **AVALAIRE FOMESAFEN 2.87** as a preplant incorporated application in potatoes or crop injury may occur.
- **DO NOT** apply to emerged potato plants or severe crop injury will occur.
- **DO NOT** use on potatoes in Nassau and Suffolk Counties, New York.

## SOYBEANS

### Preplant Surface and Preemergence Application

Apply **AVALAIRE FOMESAFEN 2.87** as a preplant surface or preemergence application in Regions 1, 2, 3, and 4 only for control or partial control of the weeds listed in Table 1. **AVALAIRE FOMESAFEN 2.87** can be applied alone

or tank mixed or followed sequentially with other labeled soybean herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to the Tank Mix and Sequential Application section for additional information.

For control of emerged weeds, **AVALAIRE FOMESAFEN 2.87** may be tank mixed with a burndown herbicide or glyphosate brands (including Touchdown, Showdown or Roundup) labeled in soybeans. In reduced tillage plantings, **AVALAIRE FOMESAFEN 2.87** can be applied up to 14 days prior to planting or at planting with a burndown herbicide.

### Postemergence Application

Apply **AVALAIRE FOMESAFEN 2.87** as a postemergence broadcast application in Regions 1, 2, 3, 4, 4a and 5 for control or partial control of weeds listed in Table 2 and in the Special Use Directions for Additional Weed Problems section. Application rate depends on weed species and growth stage. Refer to the Spray Additive section for recommended spray additives. To enhance postemergence control of susceptible broad leaf weeds (soybeans only) in Regions 2, 3, 4 and 5 (see **AVALAIRE FOMESAFEN 2.87** Regional Use Map), **AVALAIRE FOMESAFEN 2.87** can be used with a minimum of 2.5% liquid nitrogen (28% or similar) or a minimum of 10 pounds ammonium sulfate per 100 gallons of spray volume.

**AVALAIRE FOMESAFEN 2.87** can be applied alone or in combination with other labeled soybean postemergence herbicides to broaden the weed control spectrum. Refer to the Tank Mix and Sequential Application section.

Some bronzing, crinkling or spotting of soybean leaves may occur following postemergent applications, but soybeans soon outgrow these effects and develop normally.

### Tank Mix and Sequential Applications for Soybeans

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**AVALAIRE FOMESAFEN 2.87** can be used sequentially or in tank mix with one or more of the following products: Assure II, Basagran, Butyrac® (dimethylamine salt, 42750-38), Classic® (Chlorimuron, 5481-681), Dual MAGNUM, Dual II MAGNUM® (S-Metolachlor, 100-818), FrontRunner™ (cloransulam-methyl, 91234-84), Fusilade® DX (fluazifop-p-butyl, 100-1070), Fusion® (fluazifop-p-butyl plus fenoxaprop-p-ethyl, 100-1059), Glyphosate (including Touchdown, Showdown, Roundup or Glyphomax™ (glyphosate-isopropylammonium, 62719-323), Harmony® GT XP (thifensulfuron, 279-9577), Pursuit, Poast, Poast Plus® (sethoxydim, 7969-88), Prowl, Raptor, Resource® (flumiclorac, 59539-82), Select®, Sequence, and Scepter® (imazaquin, 5481-597)

Under certain conditions, the mixture of **AVALAIRE FOMESAFEN 2.87** with one or more of the above mentioned broad leaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the postemergence grass herbicide before applying **AVALAIRE FOMESAFEN 2.87** or **AVALAIRE FOMESAFEN 2.87** mixtures. Where **AVALAIRE FOMESAFEN 2.87** or the **AVALAIRE FOMESAFEN 2.87** mixture is applied first, apply the postemergence grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

### NOTE:

- Tank-mix applications can result in increased crop injury as compared to either product used alone.
- **DO NOT** exceed 1 fl. oz. of Butyrac per acre in mixture with **AVALAIRE FOMESAFEN 2.87**.
- 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.

### **Roundup Ready® (Glyphosate Resistant) Soybean Tank Mixes**

**AVALAIRE FOMESAFEN 2.87** at 4.18 - 8.36 fl oz (0.094 – 0.187 lb ai) per acre, can be tank mixed with glyphosate products (including Touchdown, Showdown or Roundup) that are labeled for Roundup Ready (glyphosate resistant) soybeans for improved postemergence control of many weeds including morningglory spp., hemp sesbania, waterhemp, and black nightshade which are known to have resistance to glyphosate, but are susceptible to **AVALAIRE FOMESAFEN 2.87**.

### **FOLLOW THE RECOMMENDATIONS ON THE GLYPHOSATE PRODUCT LABEL FOR THE USE OF SPRAY ADDITIVES IN THIS TANK MIX.**

**DO NOT** allow this tank mix to move off target as contact by even minute quantities can cause severe damage or death to any non-target vegetation.

**NOTE:** Postemergence application of this tank mix on soybean varieties which **DO NOT** contain the Roundup Ready gene will result in severe crop injury or death of the soybean crop. Always read and follow the recommendations, restrictions and limitations for all products used. The most restrictive labeling of any product applies.

### **Product Use Restrictions - Soybeans**

- Refer to **AVALAIRE FOMESAFEN 2.87** Regional Use Map for the maximum rate of **AVALAIRE FOMESAFEN 2.87** (or other fomesafen containing products) that may be applied in each geographic region. **DO NOT** apply to any field in Regions 2, 3, 4 or 5 more than once every two years.
- **DO NOT** make more than 1 application per year
- **DO NOT** exceed 1.05 pints or 16.8 fl oz (0.38 lb ai) of **AVALAIRE FOMESAFEN 2.87** per acre in anyone year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **AVALAIRE FOMESAFEN 2.87** Regional Use Map). **DO NOT** graze treated areas or harvest for forage or hay.
- **DO NOT** apply within 45 days of harvest.

### **Succulent Soybean (Edamame)**

#### **Preplant Surface and Preemergence Applications**

Apply **AVALAIRE FOMESAFEN 2.87** at 1-1.5 pints or 16 – 24 fl oz (0.36 – 0.54 lb ai)/A as a preplant surface or preemergence application only in Regions 1, 2, 3, and 4 in succulent vegetable soybean (edamame) or other food-grade soybeans. Refer to Table 1 for weeds controlled or partially controlled by preplant surface and preemergence applications. Refer to the **AVALAIRE FOMESAFEN 2.87 Regional Use Map** for the maximum rate that may be applied in each geographic region.

**NOTE:** Treated soil that is splashed onto newly emerged seedlings may result in temporary crop injury but plants normally outgrow these effects and develop normally.

#### **Postemergence Application**

Apply **AVALAIRE FOMESAFEN 2.87** as a postemergence broadcast application in Regions 1, 2, 3, 4 and 5 in succulent



vegetable soybean (edamame) or other food-grade soybeans. Refer to Table 2 and **Special Use Directions for Additional Weed Problems** section for weeds controlled or partially controlled by postemergence applications. Application rate depends on weed species and growth stage. Refer to the **AVALAIRE FOMESAFEN 2.87 Regional Use Map** for the maximum rate that may be applied in each geographic region. Apply when succulent vegetable soybean (edamame) has at least one fully expanded trifoliolate leaf. Refer to the **Spray Additives** section for recommended spray additives. Use of crop oil concentrate can improve weed control but may slightly reduce crop resistance. **DO NOT** use UAN (28% or similar) or ammonium sulfate on succulent vegetable soybean (edamame).

Some bronzing, crinkling or spotting of leaves may occur following postemergence application, but succulent vegetable soybean (edamame) soon outgrow these effects and develop normally.

#### **Tank Mixtures or Sequential Applications with Other Products Registered for Use in Succulent Soybean (Edamame)**

**AVALAIRE FOMESAFEN 2.87** may be tank mixed or applied sequentially with other pesticide products registered for use in succulent vegetable soybean (edamame). Always follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions for all products whether used alone, sequentially or in tank mix. The most restrictive labeling of any product used applies.

A jar test is recommended prior to tank mixing to ensure **AVALAIRE FOMESAFEN 2.87** compatibility with mixture partners (see **Tank Mix Compatibility Test** section of this label).

**NOTE:** Tank mix applications can result in increased crop injury as compared to either product used alone.

#### **Use Restrictions - Succulent Soybean (Edamame)**

- Refer to the **AVALAIRE FOMESAFEN 2.87 Regional Use Map** for the maximum rate of **AVALAIRE FOMESAFEN 2.87** (or other fomesafen containing products) that may be applied in each geographic region.
- **DO NOT** apply to any field in Regions 2, 3, 4 or 5 more than once every two years.
- **DO NOT** exceed 1.5 pints or 24 fl oz (0.54 lb ai) of **AVALAIRE FOMESAFEN 2.87** per acre in any one year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **AVALAIRE FOMESAFEN 2.87 Regional Use Map**).
- **DO NOT** graze treated areas or harvest for forage or hay. **DO NOT** utilize hay or straw for animal feed or bedding.
- **DO NOT** make more than 1 application per year.
- **DO NOT** apply within 30 days of harvest.

## APPENDIX

Scientific names are listed for those weeds referred to in the AVALAIRE FOMESAFEN 2.87 label.

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Balloonvine	<i>Cardiospermum halicacabum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Bindweed, Hedge	<i>Calystegia sepium</i>
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>
Carpetweed	<i>Mollugo verticillata</i>
Citron (Wild Watermelon)	<i>Citrullus vulqaris</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Crabgrass	<i>Digitaria</i> spp.
Crotalaria, Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumis sativas</i>
Eclipta	<i>Eclipta prostrata</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>
Hemp	<i>Cannabis sativa</i>
Horsenettle	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castaniifolia</i>
Milkweed, Climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, Honeyvine	<i>Ampelamus albidus</i>

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## STORAGE AND DISPOSAL

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

### PROHIBITIONS

Open dumping is prohibited. **DO NOT** reuse empty container.

### PESTICIDE STORAGE

Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

### PESTICIDE DISPOSAL

**[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.]

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

## 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 AVALAIRE, 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, AVALAIRE, 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 AVALAIRE, 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.

[AVALAIRE FOMESAFEN 2.87] is a trademark of Avalaire, LLC  
[Sinister™] is a registered trademark of Helena Holding Company.

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

**AVALAIRE FOMESAFEN 2.87<sup>TM</sup>**

[Alternate Brand Name: Insidious<sup>TM</sup>]

[Contains fomesafen, the active ingredient used in Sinister.]

[For Control of Certain Weeds in Cotton, Dry Beans, Potatoes, Snap Beans, Succulent Soybeans (Edamame) and Soybeans]

<b>ACTIVE INGREDIENT:</b>	<b>(% by weight)</b>
Fomesafen:	
5-[2 -chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide.....	28.65%
<b>OTHER INGREDIENTS:</b> .....	<u>71.35%</u>
<b>TOTAL</b> .....	<b>100.0%</b>

Contains 2.7 pounds of fomesafen per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**WARNING**

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.)

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>● Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>● Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>● Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>● Call a poison control center or doctor immediately for treatment advice.</li> <li>● Have person sip a glass of water if able to swallow.</li> <li>● <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li> <li>● <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>● Take off contaminated clothing.</li> <li>● Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>● Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>● Move person to fresh air.</li> <li>● If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>● Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	
<b>HOT LINE NUMBER</b>	
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 <b>1-844-685-9173</b> 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)**

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING**

Causes substantial but temporary eye injury. Harmful if swallowed. **DO NOT** get in eyes or on clothing. Wear protective eye wear (goggles, face shield,

or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** For Terrestrial Uses: **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. **DO NOT** apply when weather conditions favor drift from target area.

**GROUNDWATER ADVISORY**

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where permeable, particularly where the water table is shallow.

**SURFACE WATER ADVISORY**

This product may impact surface water quality due to spray drift and runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months after application. A level, well- maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of fomesafen from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. See the manual for "Conservation Buffers to Reduce Pesticide Losses" at the following internet address: <http://www.wsi.nrcs.usda.gov/products/W2Q/pest/core4.html>.

**STORAGE AND DISPOSAL**

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

**PROHIBITIONS**

Open dumping is prohibited. **DO NOT** reuse empty container.

**PESTICIDE STORAGE**

Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

**PESTICIDE DISPOSAL**

**[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.]

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

See inside label booklet for additional Precautionary Statements and Directions for Use. **[AVALAIRE FOMESAFEN 2.87]** is not manufactured, or distributed by Helena Agri-Enterprises, LLC, seller of Sinister<sup>TM</sup>.

Manufactured for:  
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