

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

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

Conditional

EPA Reg. Number:

Date of Issuance:

9/18/20

NOTICE OF PESTICIDE:	- 4
V Docistration	Term of Issuance:

X Registration
Reregistration

\_\_\_ Reregistration (under FIFRA, as amended)

Name of Pesticide Product:

Avalaire Clopyralid 3 SL

Name and Address of Registrant (include ZIP Code):

Beth Anderson Sr. Regulatory Mgr. Avalaire, LLC 4110 136<sup>th</sup> St. Ct. NW Gig Harbor, WA 98332

**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 (FIFRA).

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 conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Curtin Heldehvardt for	9/18/20
Mindy Ondish, Product Manager 23	
Herbicide Branch, Registration Division (7505P)	

- 2. You are required to comply with the data requirements described in the DCI Order identified below:
  - a. Clopyralid GDCI-117403-1454

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI Order listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1

3. Submit one copy of the 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 FIFRA 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 you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The alternate brand name, "Syphon 3 L" has been added to the product record.

Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 4/23/2020

If you have any questions, please contact Julia Kerr by phone at 703-347-0386, or via email at kerr.julia@epa.gov.

Enclosure

## ACCEPTED

09/18/2020

{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}

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

93930-20

CLOPYRALID

**GROUP** 

**HERBICIDE** 

## Avalaire Clopyralid 3 SL<sup>[™]</sup>

[Alternate Brand Name: Syphon 3 L]

Contains clopyralid, the active ingredient used in [Stinger®] [Reclaim®] [and] [Transline®].

For [control][selective postemergence control] of Broadleaf [Annual and Perennial] Weeds [and Woody Brush Species] in [Apple,] [Asparagus,] [Barley,] [Oats and Wheat Not Underseeded with Legume,] [Brassica,] [Canola (Rapeseed) and Crambe,] [Christmas Tree Plantations,] [Corn (Field, Pop, Sweet),] [Cottonwood/Poplar and Eucalyptus Tree Plantations,] [Fallow Cropland,] [Forest Sites (Including Tree Plantings),] [Garden Beet,] [Grasses Grown for Seed,] [Peppermint and Spearmint,] [Southern Pine Seedbeds in Forest Nurseries,] [Spinach,] [Stone Fruits,] [Sugar Beet,] [Turnip,] [Rangeland,] [Permanent Grass Pastures,] [Grasses Grown for Hay,] [Conservation Reserve Program (CRP) Sites,] [Non-Crop Areas] [such as Airports, Barrow Ditches, Communication Transmission Lines, Electrical Power and Utility Rights-of-way, Fencerows, Gravel Pits, Industrial Sites, Manufacturing and Storage Sites, Military lands, Mining and Drilling Areas, Non-irrigation Ditch Banks, Oil and Gas Pads, Parking Lots, Petroleum Tank Farms, Pipelines, Railroads, Roadsides, Storm Water Retention Areas, Substations, Unimproved Rough Turf Grasses, Vacant Lots and Other Non-crop Residential Areas, and Around Farm Buildings], [Natural Areas (Open Space)] [such as Campgrounds, Parks, Prairie Management, Trails and Trailheads, Recreation Areas, Wildlife Openings and Wildlife Habitat and Management Areas][including grazed areas on these sites] [and for control of mesquite and certain associated woody species on rangeland and permanent grass pastures only in Arizona, lowa, New Mexico, Oklahoma, and Texas].

ACTIVE INGREDIENT:	(% by weight)
Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt	40.9%
OTHER INGREDIENTS:	<u>59.1%</u>
TOTAL	100.0%
Acid Equivalent: clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid – 31% (3 lb/gal)	

# KEEP OUT OF REACH OF CHILDREN CAUTION

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

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

EPA Reg. No.: 93930-20

**EPA Est. No.:** Net Contents:

Manufactured for: **Avalaire, LLC** 

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

[Avalaire Clopyralid 3 SL] is not manufactured, or distributed by Dow AgroScience LLC, seller of [Stinger®] [Reclaim®] [and] [Transline®].

## **{LANGUAGE INSIDE BOOKLET}**

FIRST AID			
If in eyes:	<ul> <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 further treatment advice.</li> </ul>		
If on skin or clothing:	<ul> <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>		

## **HOT LINE NUMBER**

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

For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. 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.

## PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long sleeved shirt and long pants,
  - · Chemical-resistant gloves made of any waterproof material,
  - Shoes plus socks,
  - Protective eyewear.

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

## **USER SAFETY RECOMMENDATIONS**

## Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS:**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes.

#### **Groundwater Advisory:**

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

## **Surface Water Advisory:**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching surface water via runoff for several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of clopyralid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## PHYSICAL OR CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame. Do not mix or allow product to come into contact with oxidizing agent. Hazardous chemical reaction may occur.

## 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 State or Tribal agency responsible for pesticide regulation.

Not for Sale, use, or Distribution in Nassau County and Suffolk County in New York State.

#### **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 12 hours.

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

- Coveralls,
- Chemical-resistant gloves made of any waterproof material,
- Shoes plus socks,
- Protective eyewear.

## **Non-Agricultural Use Requirements**

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

**Entry Restrictions for Non-WPS Uses:** For applications to fallow cropland and non-crop areas, do not enter treated areas until sprays have dried. For early entry to treated areas, wear eye protection, chemical-resistant gloves made of any waterproof material, long-sleeved shirt, long pants, shoes and socks.

#### RESISTANCE MANAGEMENT

For resistance management, **Avalaire Clopyralid 3 SL** is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to **Avalaire Clopyralid 3 SL** and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

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.

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

- Rotate the use of **Avalaire Clopyralid 3 SL** or other Group 4 herbicides 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 such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.

 For further information or to report suspected resistance, contact an Avalaire, LLC representatives at 984-465-4754.

## PRODUCT INFORMATION

**Avalaire Clopyralid 3 SL** is a selective, postemergence herbicide for control of broadleaf weeds in apple, asparagus, barley, oats and wheat not underseeded with a legume, canola (rapeseed), Christmas tree plantations, conservation reserve program (CRP) acres, cottonwood/poplar and eucalyptus tree plantations, crambe, fallow cropland, field corn, garden beet, grasses grown for seed, *Brassica*, peppermint, popcorn, rangeland and permanent grass pastures, southern pine seedbeds in forest nurseries, spearmint, spinach, stone fruits, sugar beet, sweet corn, turnip, and non-cropland areas including fence rows, around farm buildings, and equipment pathways.

**Avalaire Clopyralid 3 SL** may be applied by aircraft on the following crops: canola (rapeseed), crambe, spinach and sugar beet.

Re-treatment is allowed, but do not apply more than the maximum allowable rate per crop growing season. An application to fallow cropland preceding or following an application to dryland small grains (wheat, barley or oats) is allowed, but is not allowed preceding or following an application to irrigated small grains.

## **USE RESTRICTIONS:**

- Not for Sale, Sale into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.
- In California and New York, the maximum application rate for **Avalaire Clopyralid 3 SL** is 2/3 pint per acre per growing season. Do not exceed a cumulative amount of 2/3 pint of clopyralid (0.25 lb acid equivalent) per acre per crop year, unless specifically allowed.
- In Florida, **Avalaire Clopyralid 3 SL** can only be used for the control of kudzu in forests, utility rights-of-way, roadsides, fence lines, and other non-crop areas in the following counties: Baker, Bay, Bradford, Calhoun, Columbia, Escambia, Franklin, Gadsden, Gulf, Hamilton, Holmes, Jackson, Jefferson, Lafayette, Leon, Liberty, Madison, Okaloosa, Santa Rosa, Suwannee, Taylor, Union, Wakulla, Walton, and Washington.
- Do not contaminate irrigation ditches or water used for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift to fall onto banks or bottoms of irrigation ditches or other channels that carry water that may be used for irrigation purposes.
- Do not use in greenhouses.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not spray pastures containing desirable forbs, especially legumes, unless injury can be tolerated. However, the stand and growth of established perennial grasses is usually improved after treatment, especially if rainfall is adequate for active plant growth and grazing is deferred.
- Do not transfer livestock from treated grazing areas (or feeding of treated hay) to sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture (or feeding of treated hay). If livestock are transferred within less than 7 days of grazing untreated pasture or eating untreated hay, urine and manure may contain enough clopyralid to cause injury to sensitive broadleaf plants.

## Use Precautions:

- Removal of Woody Plants Following Treatment: To maximize woody plant control, it is recommended that treated plants not be removed by mechanical means or by fire for one year after application.
- Roses and Leguminous trees such as locusts, redbud, mimosa, and caragana adjacent to or in a treated area can occasionally be affected by root uptake of Avalaire Clopyralid 3 SL.
- Established grasses are tolerant to Avalaire Clopyralid 3 SL, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system, and vigorous growth.

## **Field Bioassay Instructions:**

In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample field conditions, such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bioassay at any time prior to the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, wait one year before repeating bioassay or plant only a labeled crop or crop listed in the table below for which the rotational interval has clearly been met.

## **Crop Rotation Intervals:**

Residues of this product in treated plant tissues, including the treated crop or weeds, which have not completely decayed may affect succeeding susceptible crops.

## **Crop Rotation Intervals for Florida Only**

Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Soils less than 2% organic matter AND rainfall greater than 15 inches during 12 months following application)
Barley, Canola (Rapeseed), Cole Crops (includes <i>Brassica</i> species grown for seed), Field Corn, Flax, Garden Beet, Grasses, Oats, Popcorn, Spinach, Sugar Beet, Sweet Corn, Turnip, Wheat	Anytime
Alfalfa, Asparagus, Grain Sorghum, Onions, Peppermint, Safflower, Spearmint, Strawberry	10.5 months
Dry Beans, Soybean, Sunflower	18 months <sup>2</sup>
Lentils, Peas, Potatoes (including Potatoes Grown for Seed), and Broadleaf Crops grown for seed (excluding <i>Brassica</i> species)	18 months <sup>2, 3</sup>

For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.

<sup>&</sup>lt;sup>2</sup> Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5-month rotation interval. **Restriction:** For these crops, a minimum 10.5-month rotation interval must be observed to avoid illegal residues in the harvested crop.

<sup>&</sup>lt;sup>3</sup> For best results, conduct a field bioassay prior to planting these sensitive crops.

<sup>&</sup>lt;sup>4</sup> **Precaution:** The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, this product is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

## Crop Rotation Intervals for All States Except California, Florida, Idaho, Nevada, Oregon, Utah and Washington

Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Soils greater than 2% organic matter AND rainfall more than 15 inches during 12 months following application)	Rotation Interval <sup>4</sup> (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months following application)
Barley, Canola (Rapeseed), Cole Crops (includes <i>Brassica</i> species grown for seed), Field Corn, Flax, Garden Beet, Grasses, Oats, Popcorn, Spinach, Sugar Beet, Sweet Corn, Turnip, Wheat	Anytime	Anytime
Alfalfa, Asparagus, Grain Sorghum, Onions, Peppermint, Safflower, Spearmint, Strawberry	10.5 months	10.5 months
Dry Beans, Soybean, Sunflower	10.5 months	18 months <sup>2</sup>
Lentils, Peas, Potatoes (including Potatoes grown for seed), and Broadleaf crops grown for seed (excluding <i>Brassica</i> species)	18 months <sup>2</sup>	18 months <sup>2, 3</sup>

<sup>&</sup>lt;sup>1</sup> For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.

<sup>&</sup>lt;sup>2</sup> Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5-month rotation interval. **Restriction:** For these crops, a minimum 10.5-month rotation interval must be observed to avoid illegal residues in the harvested crop.

<sup>&</sup>lt;sup>3</sup> For best results, conduct a field bioassay prior to planting these sensitive crops.

<sup>&</sup>lt;sup>4</sup> **Precaution:** The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, this product is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

## Crop Rotation Intervals for California, Idaho, Nevada, Oregon, Utah and Washington Only

Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Areas receiving greater than 18 inches of rainfall – not including irrigation)	Rotation Interval <sup>4</sup> (Areas receiving less than 18 inches of rainfall – not including irrigation)
Barley, Canola (Rapeseed), Cole Crops (includes Brassica species grown for seed), Field Corn, Flax, Garden Beet, Grasses, Oats, Popcorn, Spinach, Sugar Beet, Sweet Corn, Turnip, Wheat	anytime	anytime
Asparagus, Grain Sorghum, Onions, Peppermint, Safflower, Spearmint, Strawberry	12 months	12 months
Alfalfa, Dry Beans, Soybean, Sunflower	12 months	18 months <sup>2, 3</sup>
Broadleaf Crops grown for seed (excluding Brassica species), Carrot <sup>2</sup> , Celery <sup>2</sup> , Cotton <sup>2</sup> , Lentils, Lettuce <sup>2</sup> , Melons <sup>2</sup> , Peas, Potatoes (including Potatoes grown for seed), Safflower and Tomato <sup>2</sup>	18 months <sup>2</sup>	18 months <sup>2, 3</sup>

For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 12 months following application.

## **Avoid Injury to Non-Target Plants:**

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Therefore, do not apply **Avalaire Clopyralid 3 SL** directly to, or allow spray drift to come in contact with, vegetables, flowers, tomatoes, potatoes, beans, lentils, peas, alfalfa, sunflowers, soybeans, safflower, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season. (See Crop Rotation Intervals.)

## **Residues in Plants or Manure:**

Do not use plant residues, including hay or straw from treated areas, or manure or bedding straw from animals that have grazed or consumed forage from treated areas, for composting or mulching where susceptible plants may be grown the following season. Do not spread manure from animals that have grazed or consumed forage or hay from treated areas on land used for growing susceptible broadleaf plants or apply such materials to land used for growing broadleaf crops, ornamentals, orchards, or other susceptible desirable plants. Plant materials or manure may contain enough clopyralid to cause injury to susceptible plant species. To promote herbicidal decomposition, plant residues should be evenly incorporated or burned. Breakdown of clopyralid in crop residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.

<sup>&</sup>lt;sup>2</sup> Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 12-month rotation interval. **Restriction:** For these crops, a minimum 12-month rotation interval must be observed to avoid illegal residues in the harvested crop.

<sup>&</sup>lt;sup>3</sup> Crop injury and/or yield loss may occur up to 4 years after application. For best results, conduct a field bioassay prior to planting these sensitive crops. See instructions above.

<sup>&</sup>lt;sup>4</sup> **Precaution:** The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, this product is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

## **Avoid Movement of Treated Soil:**

Avoid conditions under which soil from treated areas may be moved or blown to areas containing susceptible plants. Wind-blown dust containing clopyralid may produce visible symptoms, such as epinasty (downward curving or twisting of leaf petioles or stems), when deposited on susceptible plants; however, serious injury is unlikely. To minimize potential movement of clopyralid on wind-blown dust, avoid treatment of powdery dry or light sandy soils until soil is settled by rainfall or irrigation or irrigate the treated soil shortly after application.

## **Avoiding Spray Drift:**

Avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during active growth or dormant periods. Use coarse spray to minimize drift. To aid in further reducing drift, a drift control or deposition agent suitable for agricultural use may be used with this product. If used, follow all use instructions, restrictions and precautions on the product label.

## **Ground Application:**

With ground equipment, minimize spray drift by keeping the spray boom as low as possible, by applying 10 gallons or more of spray per acre, by keeping the operating spray pressure at the manufacturer's minimum specified pressures for the specified nozzle type used (low pressure nozzles are available from spray equipment manufacturers) and by spraying when the wind velocity is low (follow state regulations. Avoid application under completely calm conditions which may be conducive to air inversion. In hand-gun applications, select the minimum pressure required to obtain adequate plant coverage without forming a mist. Do not apply with a mist blower.

## **Aerial Application:**

Drift can be lessened by using straight stream nozzles directed straight back; by using drift control systems or use of drift control additives; and by keeping spray pressures low enough to provide coarse spray droplets. Do not use a thickening agent with the Microfoil or Thru-Value booms, or other systems that cannot accommodate thick sprays. Spray only when wind velocity is low (follow state regulations).

## **SPRAY DRIFT MANAGEMENT**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipmentand weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward, parallel with the air stream and never be pointed downward more than 45 degrees.
- 3. Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the "Aerial Drift Reduction Advisory Information" section below.

## Aerial Drift Reduction Advisory Information: Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions sections of this label).

#### **Controlling Droplet Size – General Techniques:**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** Orienting nozzles so that the spray is released backwards, parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

## **Boom Length:**

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

## **Application Height:**

Applications should not be made at a height greater than 10 feet above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

## **Swath Adjustment:**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

## Wind:

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

## **Temperature and Humidity:**

When making applications in low relative humidity, set up the equipment to produce larger droplets to reduce effects of evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## **Temperature Inversions:**

Application should not occur during a temperature inversion because of potential drift. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

#### **Sensitive Areas:**

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., non-target crops, bodies of water, residential areas, known habitat for threatened or endangered species) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### **Sprayer Clean-Out:**

To avoid injury to desirable plants, thoroughly clean equipment used to apply **Avalaire Clopyralid 3 SL** before reusing it to apply any other chemicals.

- Rinse and flush application equipment thoroughly at least three times with water after use. Dispose of rinse water by applying to treatment area or to non-cropland area away from water supplies.
- During the second rinse, add 1 quart of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
- Flush the solution out of the spray tank through the boom.
- Rinse the system twice with clean water, recirculating and draining each time.
- Remove nozzles and screens and clean separately.

#### MIXING DIRECTIONS

## Avalaire Clopyralid 3 SL – Alone:

- 1. Add 3/4 of the required spray volume to the spray tank and start agitation.
- 2. Add the required amount of Avalaire Clopyralid 3 SL.
- 3. Add any surfactants, crop oils, adjuvants or drift control agents according to manufacturer's label.
- 4. Agitate during final filling of the spray tank and maintain sufficient agitation during application to ensure uniformity of the spray mixture.

#### Precaution:

Allow time for thorough mixing of each spray ingredient before adding the next. If allowed to stand after mixing, agitate spray mixture before use.

## Avalaire Clopyralid 3 SL – Oil-Water Emulsion:

Spray mixtures prepared as oil-water emulsions perform more dependably than water or water plus surfactant dilutions. The oil used may be diesel fuel, fuel oil or kerosene. For aerial application, add oil to the spray mix at the ratio of 1-part oil to 5-parts water, using an appropriate agricultural spray emulsifier according to the manufacturer's specified rate. For ground application, add oil to the total spray mix at the rate of 5 to 10% of total volume up to a maximum of 1 gallon of oil per acre. Do not use more than 1 gallon of oil per acre for ground or aerial application.

To ensure proper mixing, use the following procedure and maintain continuous, vigorous mechanical, jet or by-pass agitation during the entire mixing process:

- 1. Add 1/2 the amount of water to be used to the spray mixing tanks.
- 2. Add the amount of Avalaire Clopyralid 3 SL required for the total volume of spray being mixed.
- 3. Required amounts of oil and emulsifier must be premixed. Refer to the emulsifier manufacturer's label for use directions; however, the amount of emulsifier should be confirmed in a preliminary jar test. With agitation operating, add the oil-emulsifier premix slowly to the mixing tank.
- 4. Finally, add the remaining amount of water required to bring the spray batch to the desired volume. If using a drift control additive, meter this ingredient into the water being added during this final filling stage and check spray mixture for complete dispersion.
- 5. Maintain agitation in the spray tank during application.

#### **Avalaire Clopyralid 3 SL - Tank Mix:**

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product. 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.

## **Tank Mixing Precautions:**

Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

## **Tank Mixing Restrictions:**

- Do not exceed specified application rates.
- Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment have been adequately cleaned. (See Sprayer Clean-Out.)

## **Tank Mix Compatibility Testing:**

A jar test is recommended prior to tank mixing to ensure compatibility of **Avalaire Clopyralid 3 SL** and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in the required order and their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

## **APPLICATION DIRECTIONS**

## **Application Timing:**

Apply to actively growing weeds. Extreme growing conditions, such as drought or near freezing temperatures prior to, at, or following application, may reduce weed control and increase the risk of crop injury at all stages of growth. Only weeds that have emerged at the time of application will be affected. If foliage is wet at the time of application, control may be decreased. Applications of **Avalaire Clopyralid 3 SL** are rainfast within 6 hours after application.

## **Application Rates:**

Generally, application rates at the lower end of the rate range will be satisfactory for young, succulent growth of susceptible weed species. For less sensitive species, perennials, and under conditions where control is more difficult (plant stress conditions, such as, drought or extreme temperatures, dense weed stands and/or larger weeds), use a higher rate within the rate range. Weeds in fallow land or other areas where competition from crops is not present will generally require higher rates for control or suppression.

Crop or Use Site	Rate Range (pt/acre)	Maximum Use Rate <sup>1</sup> (pt/acre /growing season)
Spinach	1/4 - 1/2	1/2
Barley, Oats, Wheat	1/4 - 1/3	1/3
Christmas Tree and Cottonwood/Poplar and Eucalyptus		
Tree Plantations, Fallow Cropland, Field Corn, Grasses grown	1/4 - 2/3	2/3
for seed, Sugar Beet		
Canola (Rapeseed), Cole Crops (Brassica	4/44/2	1/2
species), Crambe, Garden Beet, Southern Pine Seedbeds	1/4-1/2	1/2
Apple, Popcorn, Stone Fruits, Sweet Corn	1/3 - 2/3	2/3
Turnip	1/3 - 1/2	1/2
Peppermint, Spearmint	1/3 - 1	1
Noncropland, Non-Leguminous Trees, Permanent Grasses on CRP Land, Rangeland and Permanent Grass Pastures	1/3 – 1 1/3	1 1/3
Asparagus	1/2 - 2/3	2/3

<sup>&</sup>lt;sup>1</sup>Do not exceed maximum rate in rate range per growing season

## **Spot Treatments:**

To prevent misapplication, apply spot treatments only with a calibrated boom or with hand sprayers according to directions provided below. If applying as a spot treatment, apply to weeds on a spray to wet basis (not to runoff) with uniform and complete spray coverage. Avoid contact with foliage of cottonwood/poplar trees as much as possible. See use instructions for hand held sprayers below.

## **Hand Held Sprayers:**

Hand held sprayers may be used for spot applications, Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based upon an area of 1000 sq ft. Mix the amount of **Avalaire Clopyralid 3 SL** (fl oz or ml) corresponding to the desired broadcast rate in 1 gallon or more of spray. To calculate the amount of **Avalaire Clopyralid 3 SL** required for larger areas, multiply the table value (fl oz or ml) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (calc.  $3500 \div 1000 = 3.5$ ). An area of 1000 sq ft is approximately  $10.5 \times 10.5 \text{ yards}$  (strides) in size.

Amount of Avalaire Clopyralid 3 SL per Gallon of Spray to Equal Specified Broadcast Rate					
1/4 pt/acre 1/3 pt/acre 1/2 pt/acre 2/3 pt/acre				1 pt/acre	1 1/3 pt/acre
1/10 fl oz	1/8 fl oz	1/5 fl oz	1/4 fl oz	3/8 fl oz	0.5 fl oz
(2.7 ml)	(3.6 ml)	(5.4 ml)	(7.3 ml)	(11 ml)	(15 ml)

Use the following table for converting pints to fluid ounces.

Conversion Chart – Pints of Fluid Ounces				
Pints	Fluid Ounces			
1/3	5			
1/4	4			
1/2	8			
2/3	11			

## **Band Application:**

**Avalaire Clopyralid 3 SL** may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

Band width in inches		Proadcast rate per treated acre	=	Pand rate per treated acre
Row width in inches		Broadcast rate per treated acre	-	Band rate per treated acre
Band width in inches	V	Duna danat waliona a nau tuanta di anna		Donal valvasa partuantad agra
Row width in inches	<u> </u>	Broadcast volume per treated acre	=	Band volume per treated acre

## Use of Adjuvants:

Addition of surfactants, crop oils, or other adjuvants is not usually necessary when using **Avalaire Clopyralid 3 SL**. Adding a surfactant to the spray mixture may increase effectiveness on weeds but may reduce selectivity to the crop, particularly under conditions of plant stress. If an adjuvant is added to the spray solution, follow all manufacturer use guidelines.

## **Spray Coverage:**

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Do not broadcast apply in less than 2 gallons total spray volume per acre. For best results, and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, increase spray volume to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under Avoid Injury to Non-Target Plants.

## **Woody Plants and Vines Controlled**

Weed Species		
Acacias Mimosa (Silktr		
Eastern redbud	Mesquite <sup>1</sup>	
Kudzu	Wisteria	
Locust (spp)		

<sup>&</sup>lt;sup>1</sup>Not registered for use in CA.

## Broadleaf Weeds Controlled and Guidelines for Control<sup>1</sup>

Note: Letter in parentheses (-) after listed weed indicates if life cycle is annual (a), biennial (b), or perennial (p).

Weed Species	Stage of Growth	Rate for Control <sup>2</sup> (pt/acre)
Biennial wormwood (a, b) <sup>3</sup>	Up to 5 leaf	1/4 – 1/2
Black medic clover (a)		
Bull thistle (b)		
Clover (a)		
Cocklebur (a)		
Coffeeweed (a)		
Common burdock (b)		
Common cocklebur (a)		
Common groundsel (b)		
Common ragweed (a)		
Common teasel (b)		
Cornflower (bachelor button) (a)		
Curly dock (p)		

Weed Species	Stage of Growth	Rate for Control <sup>2</sup> (pt/acre)
Dandelion (p)		
False chamomile (scentless) (a)	7	
Galinsoga (a)	7	
Giant ragweed (a)	7	
Hop clover (a)	7	
Horseweed (a)	7	
Jerusalem artichoke (p)	7	
Jimsonweed (a)		
Ladysthumb (a) <sup>4</sup>		
Lambert locoweed (p)		
Marshelder (a)		
Mayweed chamomile (dogfennel) (a)		
Meadow salsify (goatsbeard) (b)		
Musk thistle (b)		
Narrowleaf hawksbeard (a)		
Orange hawkweed (p)		
Oxeye daisy (p)		
Pineappleweed (a)		
Prickly lettuce (a)		
Ragweeds (a)		
Red clover (p)		
Red sorrel (p)		
Sicklepod (a)		
Sunflower (a)		
Sweet clover (b)		
Vetch (a)		
Volunteer alfalfa (p) (from seed only)		
Volunteer beans (a)		
Volunteer lentils (a)		
Volunteer peas (a)		
Volunteer soybean (a)		
White clover (p)		
White locoweed (p)		
Yellow hawkweed (p)		
Yellow starthistle (a)		
Wild buckwheat (a)	1-3 leaf stage, but before vining	1/2
Black nightshade (a)	2 – 4 leaf stage	
Buffalobur (a) <sup>3</sup>		
Cutleaf nightshade (a)		
Eastern black nightshade (a)		
Hairy nightshade (a)		
Nightshade spp. (a)		
Green smartweed (a) <sup>4</sup>	2 -3 leaf	
Smartweeds (suppression)		
Annual sowthistle (a) (suppression)	rosette up to bud stage	Degree of infestation:
Canada thistle (p)		Light – 1/3
Perennial sowthistle (p) <sup>4</sup>		Moderate to heavy – 1/2 - 2/3

Weed Species	Stage of Growth	Rate for Control <sup>2</sup> (pt/acre)
Sowthistle (a) (suppression)		
Spotted/diffuse knapweeds (b)	up to bud stage	1/2 – 2/3
Russian knapweed (p) <sup>4</sup>		2/3 – 1 1/3

<sup>&</sup>lt;sup>1</sup> This table is provided as a general reference only. Refer to use directions for specific crop or use site for application rates.

## **Broadleaf Weeds Controlled (California Only)**

Knapweed, diffuse	Thistle, artichoke
Knapweed, Russian <sup>1</sup>	Thistle, Canada (rosette to bud)
Knapweed, spotted	Thistle, Italian
Starthistle, yellow	Thistle, musk (rosette to bud)

<sup>&</sup>lt;sup>1</sup>These weeds may only be suppressed. Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree and duration of weed control will vary with weed size and density, application rate and coverage, and growing conditions before, during, and after treatment.

<sup>&</sup>lt;sup>2</sup> Where a rate range is provided, use a lower rate in the rate range for light to moderate infestations under good growing conditions and a higher rate in the rate range for dense infestations or under less favorable growing conditions such as drought.

<sup>&</sup>lt;sup>3</sup> Not registered for use in California.

<sup>&</sup>lt;sup>4</sup> These weeds may only be suppressed. Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree and duration of weed control will vary with weed size and density, application rate and coverage, and growing conditions before, during, and after treatment. For perennial weeds, this product will control the top growth and inhibit regrowth during the season of application (season-long control). At higher use rates shown on this label, this product may cause a reduction in shoot regrowth in the season following application; however, plant response may be inconsistent due to inherent variability in shoot regrowth from perennial root systems.

## **CROP USES**

#### APPLE

(Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State)

Use Avalaire Clopyralid 3 SL for postemergence control of broadleaf weeds listed below that are infesting apples.

Target Broadleaf Weeds	Application Rate (pt/acre)
Aster	1/3 – 2/3
Burdock	(0.125 – 0.25 lb ae/acre)
Clover, red	
Clover, white	
Curly dock	
Dandelion	
Goldenrod	
Horseweed (marestail)	
Nightshade, black	
Nightshade, hairy	
Pineappleweed	
Sowthistle, annual	
Thistle, Canada	
Thistle, musk	
Vetch	
Volunteer alfalfa	

## **Application Timing:**

Apply **Avalaire Clopyralid 3 SL** to clover and vetch from weed emergence up to the 5-leaf stage of growth. Apply **Avalaire Clopyralid 3 SL** to nightshade (black and hairy) at the 2- to 4-leaf stage of growth. For control of Canada thistle and annual sowthistle, apply this product from rosette up to bud stage.

## **Application Rate:**

Apply 1/3 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

## **Tank Mixtures:**

**Avalaire Clopyralid 3 SL** may be tank mixed with other herbicides labeled for use on apple. 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.

## **Restrictions:**

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop year, not to exceed a total of 2/3 pint per acre.
- Apply this product to non-bearing (well established trees, 1 year or older) and bearing trees.
- East of the Rocky Mountains, do not apply this product during bloom.
- Avoid direct contact with foliage, fruit or tree trunks.

## **ASPARAGUS**

(Not Registered for Use in Florida)

Use **Avalaire Clopyralid 3 SL** for selective postemergence control of specific annual and perennial broadleaf weeds infesting asparagus.

## **Application Timing:**

Apply before or during the asparagus cutting season, or after harvest is complete, but prior to fern growth. Treat annual weeds before they send up a flower stalk. For best results on perennial weeds, such as Canada thistle, apply this product after the majority of basal leaves have emerged up to bud stage. Following application, wait at least two weeks before cultivating.

## **Application Rate:**

Apply **Avalaire Clopyralid 3 SL** at a rate of 1/2 to 2/3 pint per acre in a total spray volume of 10 to 40 gallons per acre. Use a higher rate in the rate range for more effective control of perennial weeds. A second application may be made as long as the total amount applied does not exceed 2/3 pint of this product per acre during the growing season.

#### **Precautions:**

- Make postharvest (layby) applications as soon as possible after cutting provided weeds are in the proper stage of growth for treatment. Malformed ferns may result from application when spears are longer than 3 inches or have open seed heads.
- When this product is applied during the cutting season, some crooking (twisting) of asparagus spears may
  occur. Do not apply during the cutting season if crooking cannot be tolerated. Clear-cutting of spears just
  before applying this product may reduce the occurrence of crooking.

#### Restrictions:

• **Preharvest Interval:** Do not apply within 48 hours of harvest.

## BARLEY, OATS AND WHEAT NOT UNDERSEEDED WITH LEGUME

(Not Registered for Use in Florida)

#### **Application Rate:**

Apply 1/4 to 1/3 pint of **Avalaire Clopyralid 3 SL** per acre when crop is from the 3-leaf stage up to early boot stage of growth. For control of perennial weeds, such as Canada thistle, apply 1/3 pint of **Avalaire Clopyralid 3 SL** per acre. Russian knapweed will only be suppressed at this rate.

## Restrictions:

- Do not permit lactating dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 1 week after treatment.
- Do not harvest hay from treated grain fields.

## BRASSICA (COLE) LEAFY VEGETABLES (CROP GROUP 5)1

For use and distribution only in the states of Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Maine, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Virginia, West Virginia, and Wisconsin

(Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State)

*Brassica* (cole) leafy vegetables (crop group 5) including broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, cauliflower, cavalo broccolo, Chinese broccoli (gai lon), Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens

Target Broadleaf Weeds	Avalaire Clopyralid 3 SL (pt./acre)
Chamomile	1/4 – 1/2
Clover	
Common cocklebur	
Dandelion	
Galinsoga	
Pineappleweed	
Prickly lettuce	
Ragweed	
Smartweed	
Wild buckwheat	
Annual sowthistle <sup>1</sup>	1/3 – 1/2
Canada thistle <sup>1</sup>	

<sup>&</sup>lt;sup>1</sup> Suppression only

## **Broadcast Application Rates:**

Apply uniformly with ground equipment in a minimum of 10 to 40 gallons of water per acre. For suppression of Canada thistle, apply after the majority of basal leaves have emerged, but prior to bud stage, and at least 30 days prior to harvest.

## **Tank Mixes:**

This product may be tank mixed with other herbicides labeled for use on mustard greens. 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. See Tank Mixing section under Mixing Directions.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre (0.187 lb ai/acre) per year.
- In New York and California, the maximum application rate is 2/3 pint per acre per growing season. Do not exceed the cumulative amount of 2/3 pint (0.25 lb a.e.) per acre per crop year.
- In Florida, this product may be used only on cabbage, Chinese cabbage (napa) and Chinese mustard cabbage (gai choy).

## **CANOLA (RAPESEED) AND CRAMBE**

(Not Registered for Use in California and Florida)

#### **Application Timing:**

Apply to canola or crambe in the 2- to 6-leaf stage of crop growth at rates shown in the following table. Consult the table entitled Broadleaf Weeds Controlled and Guidelines for Control for additional information. Apply this product uniformly with ground or aerial equipment in 10 to 20 gallons total spray volume per acre (minimum of 5 gallons per acre by air).

Target Broadleaf Weeds	Avalaire Clopyralid 3 SL (pt/acre)
Canada thistle	1/3
	For top growth suppression
Canada thistle	1/2
Perennial sowthistle	For season long control
Annual sowthistle	1/4 – 1/2
Biennial wormwood	
Dandelion	
Dock, curly	
False chamomile	
Green smartweed	
Mayweed chamomile	
Nightshade species	
Sunflower	
Wild buckwheat	

## **Restrictions:**

- **Preharvest Interval:** Do not apply within 50 days of harvest.
- Make one broadcast application per crop per year.

## **CHRISTMAS TREE PLANTATIONS**

(Not Registered for Use in Florida)

## **Application Timing:**

Use **Avalaire Clopyralid 3 SL** for over the top application to actively growing balsam fir, blue spruce, Douglas fir, fraser fir, grand fir, lodgepole pine, noble fir, ponderosa pine, and white pine. In the Pacific Northwest, do not apply in the first year of transplanting because some needle curling has been observed on first year transplants. For control of annual weeds, apply this product from weed emergence up to the 5-leaf stage of growth. For control of wild buckwheat, apply at 3- to 5-leaf stage of growth, but before vining. For control of weeds, such as Canada thistle and knapweeds, apply after the majority of the basal leaves have emerged up to bud stage. Later application may result in less consistent control.

## **Application Rate:**

Apply 1/4 to 1/2 pint of **Avalaire Clopyralid 3 SL** per acre for control of annual weeds. Apply 1/2 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre for difficult to control weeds, such as Canada thistle and knapweeds. Apply as a broadcast or band application in a minimum of 10 gallons per acre by ground application. Use the formulas under Band Application to determine the rate and volume per treated acre.

**Avalaire Clopyralid 3 SL** may be applied as a spot treatment using a hand held sprayer at an equivalent broadcast rate of 1/2 to 2/3 pint per acre. Refer to Hand Held Sprayers under Spot Treatment in the Application Directions

#### section.

## Hand-Held Sprayers:

Hand-held sprayers may be used for spot applications of **Avalaire Clopyralid 3 SL** if care is taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based upon an area of 1000 sq ft. Mix the amount of **Avalaire Clopyralid 3 SL** (fl oz or mL) corresponding to the desired broadcast rate in 1 gallon or more of spray. To calculate the amount of **Avalaire Clopyralid 3 SL** required for larger areas, multiply the table value (fl oz or mL) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (calculation,  $3500 \div 1000 = 3.5$ ). An area of 1000 sq ft is approximately  $10.5 \times 10.5 \text{ yards}$  (strides) in size.

Amount of Avalaire Clopyralid 3 SL to Treat an Area of 1000 sq ft (pint/acre)						
(Mix in 1 Gallon or More of Spray)						
Fl oz per 1000 sq ft 3/32 fl oz (2.8 mL) 3/16 fl oz (5.5 mL) 1/4 fl oz (7.3 mL)						
Equivalent pt/acre 1/4 1/2 2/3						

## **Tank Mixing:**

**Avalaire Clopyralid 3 SL** may be applied in tank mix combination with other herbicides as per label directions for Christmas tree plantations. Observe the label of other products used in tank mixtures and follow all applicable label directions. If directions on this label and tank mix partners differ, follow the most restrictive label directions.

## **Precautions:**

- Tree injury may occur with the addition of a surfactant or crop oil with this product. Do not use unless previous experience shows injury is tolerable.
- True firs (grand, noble, and pacific silver firs) show more needle curling than other conifers when higher rates are used. Use lower rates in rate range for broadcast applications or use directed sprays where possible if needle curling is undesirable.

## **Restrictions:**

- Re-treat as necessary, but do not exceed 2/3 pint per acre per annual growing season.
- Blue spruce: Do not exceed 1/2 pint per acre per annual growing season.
- Tree injury may occur with the addition of a surfactant or crop oil with **Avalaire Clopyralid 3 SL**. Do not use unless previous experience shows injury is tolerable.
- Do not apply with an air blast sprayer.

## **CORN (FIELD, POP, SWEET)**

(Not Registered for Use in Florida)

Use **Avalaire Clopyralid 3 SL** for postemergence control of annual sowthistle, Canada thistle, common cocklebur, common sunflower, giant and common ragweed, Jerusalem artichoke, jimsonweed and other broadleaf weeds infesting field corn. Apply **Avalaire Clopyralid 3 SL** at specified timing and rates for field, pop and sweet corn as indicated below.

## **Weed Control:**

For control of common cocklebur, common ragweed, giant ragweed, sunflower, other annual weeds and Jerusalem artichoke, apply 1/4 to 1/2 pint of **Avalaire Clopyralid 3 SL** per acre from weed emergence up to the 5-leaf stage of growth. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired. Consult the table entitled Broadleaf Weeds Controlled and Guidelines for Control for additional information.

#### **Control of Canada Thistle:**

For effective control of Canada thistle, apply 1/3 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre as a broadcast treatment to the entire infested area. Apply when the majority of thistle plants have emerged and thistles are at

least 6 to 8 inches in diameter or height up to bud stage. Cultivation can disrupt translocation to the roots of Canada thistle. For best long-term control, do not cultivate before or after application. If cultivation is necessary, wait 14 to 20 days after application before cultivating to allow for thorough translocation.

Control of Canada thistle is influenced by growing conditions, density and size of thistle plant at application, tillage practices used, etc. Light infestations (less than 10 plants per square yard) will generally be adequately controlled with a rate of 1/3 pint per acre. For medium to heavy infestations (more than 10 plants per square yard), rates of 1/2 to 2/3 pint per acre are generally more effective since these Canada thistle stands involve an extensive rhizome system.

The following are general descriptions of control to be expected from each application rate given a medium to heavy population of Canada thistle. Control of lighter infestations may be better than that described.

- A rate of 1/3 pint per acre will suppress top growth of Canada thistle for 6 to 8 weeks. Some regrowth may occur by the end of the season, but this will not interfere with harvesting of the crop.
- A rate of 1/2 pint per acre will generally provide season-long control of Canada thistle. Not all rhizomes will be killed and some regrowth may occur by the end of the growing season.
- A rate of 2/3 pint per acre will provide season-long control of Canada thistle plus suppression into the following season, resulting in a reduction of the total number of Canada thistle plants in the treated area.

## **FIELD CORN**

## **Application Timing:**

Apply **Avalaire Clopyralid 3 SL** to actively growing broadleaf weeds any time after corn emergence through 24 inch tall corn. Apply with ground equipment as a postemergence broadcast or directed spray in 10 gallons or more of spray volume per acre to ensure uniform and thorough spray coverage of the weed foliage. Use only spray nozzles designed for herbicide application. Using flat fan nozzles provides the best coverage and distribution of chemical on the plant foliage. Use spray pressures (at the boom) specified by nozzle manufacturers to obtain desired spray volume. Use higher spray volumes when weed foliage is dense.

## **Tank Mixes or Sequential Applications:**

See Tank Mixing section under Mixing Directions. If **Avalaire Clopyralid 3 SL** is applied sequentially or in combination with Clopyralid + Flumetsulam to the current corn crop, the maximum application rate at which **Avalaire Clopyralid 3 SL** may be applied to field corn is indicated in the following table:

Rate of Clopyralid Potassium Salt (60%) + Flumetsulam (18.5%) WDG Applied to Current Corn Crop (oz/acre)	Maximum Application Rate for Avalaire Clopyralid 3 SL (fl oz/acre)
2	8.1
3	6.8
4	5.4
5	4.0

## **Restrictions:**

- Maximum use rate for clopyralid is 0.25 lb a.e. per acre of all clopyralid containing products.
  - One fluid ounce of this product contains 0.023 lb of clopyralid.

## **Corn Inbred Lines or Breeding Stock:**

Susceptibility of corn to injury from **Avalaire Clopyralid 3 SL** is highly related to varietal response. Inbred lines or any breeding stock may be injured by this product. Contact your seed production agronomist for advice before applying this product to inbred lines or breeding stock.

## **Hand Held Sprayers:**

**Avalaire Clopyralid 3 SL** may be applied as a spot treatment using a hand held sprayer at an equivalent broadcast rate of 2/3 pint per acre. Refer to Hand Held Sprayers under Spot Treatment in the Application Directions section. Make applications on a spray-to-wet basis with spray coverage uniform and complete. Do not spray to the point of runoff.

## Max rate - Restriction:

Retreat as necessary, but do not apply more than 2/3 pint per acre per year.

#### Restrictions

- Do not apply to field corn more than 24 inches tall.
- Do not allow livestock to graze treated areas or harvest treated corn silage as feed within 40 days after last treatment.

## POPCORN AND SWEET CORN

(Not Registered for Use in California)

## **Application Timing:**

For popcorn, apply **Avalaire Clopyralid 3 SL** any time after popcorn emergence through 24-inch tall popcorn. For sweet corn, apply this product any time after sweet corn emergence through 18-inch tall sweet corn.

## **Application Rate:**

Apply 1/3 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre uniformly with ground equipment as a broadcast or directed spray in 10 to 20 gallons total spray volume per acre. For control of Canada thistle, apply this product when the majority of thistle plants have emerged and thistles are at least 6 to 8 inches in diameter or height, but before bud stage. For control of annual sowthistle, common cocklebur, Jerusalem artichoke, jimsonweed, ragweed (common and giant), and sunflower, apply this product from weed emergence up to the 5-leaf stage of growth. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired. Consult the table entitled Broadleaf Weeds Controlled and Guidelines for Control for additional information.

#### **Restrictions:**

- Preharvest Interval: Do not apply within 30 days of harvest for ears and forage and within 60 days of harvest for stover.
- Make one to two broadcast applications per crop per year, not to exceed a total of 2/3 pint per acre.
- Re-Treatment Interval: 21 days.
- Do not apply to popcorn more than 24 inches tall or sweet corn more than 18 inches tall.
- Apply only to sweet corn or popcorn that is to be used for processing.

## COTTONWOOD/POPLAR AND EUCALYPTUS TREE PLANTATIONS

(Not Registered for Use in Florida)

## **Application Timing:**

**Avalaire Clopyralid 3 SL** may be used for selective postemergence control of labeled broadleaf weeds in new and established plantings of cottonwood/poplar and eucalyptus tree plantations. Apply as a broadcast foliar spray over trees or as a banded or directed spray Apply in 10 gallons or more per acre total spray volume using ground equipment only. Multiple applications may be made as long as the total rate per annual growing season does not exceed 1 1/3 pint per acre. Apply to new plantings only after they are well established as indicated by several inches of new healthy growth.

Application Rates: Apply at a rate of 1/3 to 1 1/3 pints/acre in eucalyptus tree plantations and 1/3 to 2/3 pints/ acre

in cottonwood/poplar plantations. Sequential applications may be made as long as the total rate per annual growing season does not exceed 1 1/3 pints per acre.

**In California:** The maximum use rate is 2/3 pint per acre per annual growing season.

**In Hawaii:** For control of additional weeds in eucalyptus tree plantations (listed below), apply as a broadcast spray over the top, as a directed or branded spray, or as a spot treatment.

Additional Weeds Controlled in Eucalyptus Tree Plantations in Hawaii:

Weed Species	Application Rate (pint/acre)	Application Timing
ageratum (Ageratum conyzoides) fireweed (Erechtites hieracifolia) thickhead (Crassocephalum crepidioides)	1/3 – 2/3	Smaller plants may be controlled using the lower rate. Plants may be slow to show control at lower rates.
beggarweed ( <i>Desmodium intortum</i> ) horseweed ( <i>Conyza bonariensis</i> )	2/3 – 1 1/3	Smaller plants may be controlled using the lower rate. Use 1 to 1 1/3 pints per acre for <i>Desmodium intortum</i> in flower stage.

See Broadleaf Weeds Controlled and Guidelines for Control for specified rates and timing for specific susceptible annual, biennial, and perennial weeds.

## **Hand Held Sprayers:**

Mix the amount of **Avalaire Clopyralid 3 SL** corresponding to the desired broadcast rate in 1 gallon or more of water and apply to an area of 1000 sq ft. For larger areas, multiply the values in the table below by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (3500  $\div$  1000 = 3.5). Prepare a spray solution by adding 1/4 fl oz of **Avalaire Clopyralid 3 SL** per gallon of water. When applied at 1 gallon of spray per 1000 sq ft, this spray concentration is equivalent to a broadcast rate of 2/3 pint per acre. Using the example of 3500 sq ft, the applicator would use 3.5 x 1/4 fl oz = 7/8 fl oz of **Avalaire Clopyralid 3 SL** in 3.5 gallons of water.

Amount of Avalaire Clopyralid 3 SL to Treat an Area of 1000 sq ft (pint/acre)						
(Mix in 1 Gallon or More of Spray)						
Fl oz per 1000 sq ft	Fl oz per 1000 sq ft					
Equivalent pt/acre	Equivalent pt/acre 1/3 2/3 1 1 1/3					

## Tank Mix:

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product. Observe the label of other products used in tank mixtures and follow all applicable label directions. If directions on this label and tank mix partners differ, follow the most restrictive label directions.

#### **Precautions:**

• This product will not control certain broadleaf weeds including mustards, henbit, chickweed, kochia, lambsquarters, pigweed, Russian thistle and bindweed.

#### **Restrictions:**

- Do not tank mix this product with other herbicides labeled for this use unless spray avoids all contact with tree foliage.
- In California, do not exceed 2/3 pint per acre per annual growing season.

#### **FALLOW CROPLAND**

(Not Registered for Use in Florida)

## **Application Timing:**

**Avalaire Clopyralid 3 SL** can be applied either postharvest, in the spring/summer (during fallow period), or to set aside acres to control or suppress listed weeds (refer to rotation restrictions). Apply to young, emerged weeds under conditions that promote active growth. For best results on perennial weeds, such as Canada thistle, apply after the majority of the basal leaves have emerged up to bud stage. Later applications may result in less consistent control.

For best results, wait 14 to 20 days after application before cultivating or fertilizing with shank-type applicators to allow for thorough translocation.

#### **Application Rate:**

Apply 1/4 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre. Use a higher rate in the rate range on perennial weeds or when the condition of weeds at treatment may prevent optimum control.

#### **Tank Mixes:**

To improve control of certain broadleaf weeds, **Avalaire Clopyralid 3 SL** may be applied with 0.5 to 2 lb a.e. of 2,4-D per acre. 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. See Tank Mixing section under Mixing Directions.

## FOREST SITES, INCLUDING TREE PLANTINGS

(Not Registered for Use in Florida)

NOTE: Forestry uses in California are permitted as long as the maximum use rate per annual growing season for California (2/3 pint per acre) is not exceeded.

Apply **Avalaire Clopyralid 3 SL** for control of certain problem weeds growing in forest sites, including tree plantings. Apply **Avalaire Clopyralid 3 SL** either at site preparation or after trees are planted (tree release). Applications of **Avalaire Clopyralid 3 SL** over the top of tolerant tree species may be made anytime during the season; however, some needle/leaf curling may occur if applied during active tree growth. This effect is transient and trees should recover by the end of the same growing season or early in the following growing season.

Examples of Tolerant Tree Species:			
Alder	Grand fir	Norway spruce	Sumac
Black walnut	Green ash	Pacific silver fir	Sycamore
Bur oak	Hackberry	Ponderosa pine	Virginia pine
Cherry	Hickory	Red oak	Western red cedar
Cherry bark oak	Hybrid aspen	Red pine	Western hemlock
Choke cherry	Hybrid poplar	Russian olive	White ash
Cottonwood	Incense cedar	Sawtooth oak	White pine
Crabapple	Loblolly pine	Scotch pine	White spruce
Douglas-fir	Lodgepole pine	Slash pine	White oak
Eastern red cedar	Longleaf pine	Shortleaf pine	
European larch	Noble fir	Sugar maple	

## **Broadcast Application:**

Apply the required amount of **Avalaire Clopyralid 3 SL** in 5 gallons of water or more per acre to achieve thorough and uniform spray coverage of target weeds using ground equipment or helicopter.

**Avalaire Clopyralid 3 SL** will not control mustards, henbit, chickweed, kochia, lambsquarters, pigweed, Russian thistle and field bindweed.

Weed Species	Application Rate (pt/A)	Application Timing
General weed control	1/4 – 1 1/3	Apply when weeds are small and actively growing. The lower
		rate of 1/4 pt per acre provides acceptable control of weeds
		only under highly favorable plant growing conditions and
		when weeds are no more than 3 to 6 inches tall.
Knapweed, diffuse	1/3 – 1 1/3	For best results, apply after the majority of basal leaves have
Knapweed, spotted		emerged, up to early bud stage. Treatments applied prior to
Thistle, Canada		the emergence of the majority of basal leaves or at later
		growth stages may result in only partial control.
Hawkweeds	2/3 – 1 1/3	For best results, apply from rosette to bolting stage of
Starthistle, yellow		growth. For hawkweeds only, fall applications will not control
Thistle, bull		this weed.
Thistle, musk		
Kudzu		Applications are most effective between late June and early
		October as long as the kudzu are actively growing and not
		under drought stress. The ideal time to apply is during
		vigorous growth and just prior to or during flowering.

Spot Applications can be used in forest sites. Follow instructions in the "Spot Treatment" section above.

## **Tank Mixing:**

**Avalaire Clopyralid 3 SL** may be applied in tank mix combination with other herbicides registered for this use. Observe the label of other products used in tank mixtures and follow all applicable label directions. If directions on this label and tank mix partners differ, follow the most restrictive label directions.

## **Precautions:**

- Application of Avalaire Clopyralid 3 SL to broadleaf (hardwood) tree species may cause some leaf burning
  and malformation. This injury is transient in nature, except for plants in the legume family (see below).
   Addition of surfactant or crop oil may increase the severity of this injury.
- True firs (grand, noble, and pacific silver firs) show more needle curling than other conifers when higher rates are used. Use lower rates in the rate range for broadcast applications or use directed sprays where possible if needle curling is undesirable.
- Application of **Avalaire Clopyralid 3 SL** to plants in the legume family (such as locust, redbud, mimosa and lupine) or to box elder, persimmon or sassafras will cause severe damage or control of such plants.

#### **Restrictions:**

- Applications of Avalaire Clopyralid 3 SL over actively growing conifers may cause some needle curling. Tree
  injury in the form of needle curling may be increased by the addition of a surfactant or crop oil with
  broadcast applications of Avalaire Clopyralid 3 SL. Use of a surfactant or crop oil is not recommended unless
  previous experience shows such injury can be tolerated.
- Do not use in forest nursery beds.

#### **GARDEN BEET**

(Not Registered for Use in California and Florida)

Use **Avalaire Clopyralid 3 SL** for postemergence control of common ragweed, galinsoga, nightshade (black, cutleaf, Eastern black and hairy), prickly lettuce, sowthistle, sweet clover, and wild buckwheat infesting garden beet.

## **Application Timing:**

Apply to garden beet in the 2- to 8-leaf stage of crop growth when weeds are young and actively growing. Apply Avalaire Clopyralid 3 SL to wild buckwheat at the 1- to 3-leaf stage of growth before vining begins. Apply this product to common ragweed and sweet clover from weed emergence up to the 5-leaf stage of growth. Apply this product to all species of nightshade at the 2- to 4-leaf stage of growth. Apply this product to sowthistle from rosette up to bud stage. Apply in 10 gallons or more total spray volume per acre with ground equipment.

## **Application Rate:**

Apply 1/4 to 1/2 pint of **Avalaire Clopyralid 3 SL** per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

#### **Restrictions:**

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre.

## **GRASSES GROWN FOR SEED**

(Not Registered for Use in Florida)

## **Application Timing:**

Apply only to established grasses before the boot stage of growth. Applications in the boot stage and beyond can result in increased potential for injury. Do not apply to bentgrass unless injury can be tolerated. For control of late emerging Canada thistle, a preharvest treatment may be made after grass seed is fully developed. Treatment of Canada thistle at the bud stage or later may result in less consistent control. Postharvest fall treatments may be made to actively growing Canada thistle after the majority of basal leaves have emerged.

## **Application Rate:**

Use 1/4 to 2/3 pint of Avalaire Clopyralid 3 SL per acre for control of annual weeds and Canada thistle.

## **Tank Mixes:**

**Avalaire Clopyralid 3 SL** may be tank mixed with 2,4-D, MCPA, dicamba, or bromoxynil to control additional broadleaf weeds. 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. See Tank Mixing section under Mixing Directions.

## **Precautions:**

Dicamba or bromoxynil tank mixes may be useful in broadening the annual weed control spectrum, but
may reduce long-term control of perennials, such as Canada thistle. Do not tank mix Avalaire Clopyralid 3
SL with 2,4-D, MCPA, or dicamba unless the risk to crop injury is acceptable.

#### **Restrictions:**

• Re-treat as necessary, but do not exceed 2/3 pint per acre per season.

## PEPPERMINT AND SPEARMINT

(Not Registered for Use in Florida)

**Avalaire Clopyralid 3 SL** may be used for selective postemergence control of specific annual and perennial broadleaf weeds infesting peppermint and spearmint.

#### **Application Timing:**

Treat annual weeds when they are small and actively growing before they send up a flower stalk. For Canada thistle, apply **Avalaire Clopyralid 3 SL** after the majority of basal leaves have emerged, but prior to bud stage.

#### **Application Rate:**

Apply as a broadcast foliar spray in 10 gallons or more total spray volume per acre using ground equipment only. A nonionic surfactant of at least 80% active ingredient may be added at a rate of 1 pint per 100 gallons of spray solution.

Application Timing and Weeds Controlled	Avalaire Clopyralid 3 SL (pt/acre)	
Fall treatment only (Sept. 15 to first frost) Annuals Perennials Hard-to-kill perennials (Canada thistle, dandelion)	1/2 2/3 1	
Spring treatment only Annuals Perennials	1/3 1/2	
Fall plus spring treatment	Maximum of 2/3 in fall + 1/3 in spring	

## **Precautions:**

- Discoloration or malformation of peppermint and spearmint leaves may occur following treatment. This effect is generally temporary and does not reduce oil yields.
- This product will not control many broadleaf weeds, such as chickweed, field bindweed, henbit, kochia, lambsquarters, mustards, pigweed, and Russian thistle.

## **Restrictions:**

- **Preharvest Interval:** Do not apply within 45 days of harvest.
- Do not apply more than 1 pint per acre per growing season.
- Treated peppermint and spearmint may be used for distillation (oil extraction) only.
- Do not feed spent peppermint and spearmint hay slugs to livestock.
- Peppermint and spearmint straw, hay or spent hay (slugs) from treated areas cannot be used for composting or mulching. If hay slugs are disposed of on cropland, distribute in a thin layer and incorporate.
   Do not dispose of hay slugs on land to be rotated to a susceptible crop. (See Residues in Plants or Manure section.)

## **SOUTHERN PINE SEEDBEDS IN FOREST NURSERIES**

Registered for Use in Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia (Not Registered for Use in Florida)

**Avalaire Clopyralid 3 SL** may be applied over the top of loblolly pine, slash pine, and longleaf pine to control sicklepod and other susceptible broadleaf weeds in southern pine seedbeds in forest nurseries. Apply as a broadcast or spot treatment from May through July when weeds are actively growing.

#### **Application Timing:**

For best results, apply when weeds are small and actively growing. For control of sicklepod, apply after the majority of basal leaves have emerged.

## **Application Rate:**

Apply at a broadcast rate of 1/4 to 1/2 pint per acre in a spray volume of 20 gallons or more per acre. Application may be made any time after May 1, but some needle curling may occur if applied during active conifer growth. When making spot applications, use a calibrated boom, or if a hand held sprayer is used, care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Otherwise, do not use more than 1/5 fl oz (1 tsp.) of **Avalaire Clopyralid 3 SL** per gallon of spray and direct spray onto weeds. Avoid spraying pine seedlings whenever possible.

## **Precautions:**

- Application of this product during active growth of conifers may cause some needle curling.
- Do not use surfactants or crop oils in spray mixtures as the potential for tree injury in the form of needle curling may be increased.

## **SPINACH**

(Not Registered for Use in California and Florida)

Use **Avalaire Clopyralid 3 SL** for postemergence control of annual sowthistle, black nightshade, Canada thistle, clover, common cocklebur, common groundsel, hairy nightshade, jimsonweed, pineappleweed, prickly lettuce, and ragweed infesting spinach.

## **Application Timing:**

Apply to spinach in the 2- to 5-leaf stage of crop growth. Apply **Avalaire Clopyralid 3 SL** to clover, common cocklebur, common groundsel, jimsonweed, prickly lettuce, pineappleweed and ragweed from weed emergence up to the 5-leaf stage of growth. For top growth suppression of annual sowthistle and Canada thistle, apply this product from rosette up to bud stage. For control of Canada thistle, apply after the majority of basal leaves have emerged but prior to bud stage and at least 21 days prior to harvest.

## **Application Rate:**

Apply 1/4 to 1/2 pint per acre of **Avalaire Clopyralid 3 SL** uniformly with ground or aerial equipment in 10 to 20 gallons total spray volume per acre (minimum of 5 gallons per acre by air). Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

## **Precautions:**

Some leaf curling may be observed on smaller spinach, particularly at higher use rates. Crop tolerance may
be optimized by selecting the lower application rate necessary for weed control, especially where nonuniform emergence has caused variable plant sizes

#### **Restrictions:**

- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre.

## STONE FRUITS (CROP GROUP 12)1

(Not Registered for Use in California and Florida)

<sup>1</sup>Stonefruits (Crop Group 12) including apricot, chickasaw plum, damson plum, fresh prune, Japanese plum, nectarine, peach, plum, plumcot, sweet cherry, tart cherry.

Use **Avalaire Clopyralid 3 SL** for postemergence control of annual sowthistle, Canada thistle, clover, dandelion, horseweed, musk thistle, nightshade (black and hairy), and vetch infesting stone fruits.

## **Application Timing:**

Apply **Avalaire Clopyralid 3 SL** to clover and vetch from weed emergence up to the 5-leaf stage of growth. Apply this product to nightshade (black and hairy) at the 2- to 4-leaf stage of growth. For control of Canada thistle and annual sowthistle, apply this product from rosette up to bud stage.

## **Application Rate:**

Apply 1/3 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

#### **Restrictions:**

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 2/3 pint per acre.

## **SUGAR BEET**

(Not Registered for Use in Florida)

Use Avalaire Clopyralid 3 SL for the control of various annual and perennial broad leaf weeds infesting sugar beet.

## **Application Rate:**

Apply 1/4 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre with ground equipment as a broadcast foliar spray or band treatment or with aerial equipment in 5 gallons or more total spray volume per acre. See instructions for band application under Application Directions in the Product Information section. Apply in 10 gallons or more total spray volume per acre when the sugar beets are in the cotyledon to 8-leaf stage of growth and the weeds are young and actively growing

For annual weed control apply 1/4 to 1/2 pint of **Avalaire Clopyralid 3 SL** per acre from weed emergence up to the 5-leaf stage of growth. Apply to wild buckwheat at the 1- to 3-leaf stage of growth before vining begins.

For the most effective control of perennials, such as Canada thistle and sowthistle, apply 1/2 to 2/3 pint of **Avalaire Clopyralid 3 SL** per acre as a broadcast treatment to the entire infested area. Apply when the majority of basal leaves have emerged up to the bud stage. Cultivation can disrupt translocation to the roots of perennials, such as Canada thistle. For best results, do not cultivate thistle patches.

To promote herbicidal efficacy, wait a minimum of 7 days after application before flood or furrow irrigation.

## **Tank Mixes:**

To control additional broadleaf weeds and provide consistent control of difficult to control weeds, such as wild buckwheat, **Avalaire Clopyralid 3 SL** may be applied in combination with labeled rates of a product containing phenmedipham/desmedipham, desmedipham, triflusulfuron, or other products registered for postemergence application in sugar beets. For best results, tank mix 1/4 pint of this product per acre with a product containing phenmedipham/desmedipham or desmedipham followed one to two weeks later by a second application of 1/4 to 1/3 pint of this product per acre tank mixed with a product containing phenmedipham/desmedipham or desmedipham. This product may also be tank mixed with a grass herbicide containing sethoxydim. Crop oil or Dash surfactant may be added to the tank mixture to optimize grass weed control. 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. See Tank Mixing section under Mixing Directions.

#### Restrictions:

- Preharvest Interval: Do not apply within 45 days of harvest.
- Re-treat as necessary, but do not exceed 2/3 pint per acre per season.
- Aerial application of this product in sugar beet is allowed only in the states of Colorado, Idaho, Michigan,
   Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington, and Wyoming.

## **TURNIP**

(Not Registered for Use in California and Florida)

Use **Avalaire Clopyralid 3 SL** for postemergence control of common ragweed, galinsoga, prickly lettuce, sweet clover, and wild buckwheat and postemergence suppression of sowthistle infesting turnip harvested for roots and tops.

#### **Application Timing:**

Apply **Avalaire Clopyralid 3 SL** to wild buckwheat at the 1- to 3-leaf stage of growth before vining begins. Apply **Avalaire Clopyralid 3 SL** to common ragweed and sweet clover from weed emergence up to the 5-leaf stage of growth. For suppression of sowthistle, apply **Avalaire Clopyralid 3 SL** from rosette up to bud stage.

#### **Application Rate:**

Apply 1/3 to 1/2 pint of **Avalaire Clopyralid 3 SL** per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

## Restrictions:

- **Preharvest Interval:** Do not apply within 30 days of harvest of turnip roots or within 15 days of harvest of turnip tops.
- Make one broadcast application per crop per year.

## RANGELAND, PASTURE, CRP AND NON-CROP USES

(Not Registered for Use in Florida)

NOTE: Rangeland and pasture uses in California are permitted as long as the maximum use rate for California (2/3 pint per acre per annual growing season) is not exceeded.

Use **Avalaire Clopyralid 3 SL** to control susceptible broadleaf weeds on rangeland, shelterbelts, Conservation Reserve Program acres, or established forage grasses in permanent grass pastures. Best results on most weeds are obtained when weeds are small and actively growing (see specific information below) and application is made in 10 gallons or more per acre of water using ground equipment. Do not apply with broadcast applications in less than 4 gallons per acre.

## **Rotation to Broadleaf Crops:**

Do not plant broadleaf crops in treated areas until an adequately sensitive bioassay shows that no detectable clopyralid is present in the soil. (See Crop Rotation Restrictions in Product Information section.)

## **Rangeland and Permanent Grass Pastures:**

Apply 1/3 to 1 1/3 pints of **Avalaire Clopyralid 3 SL** per acre when weeds are young and actively growing. Established grasses are tolerant to **Avalaire Clopyralid 3 SL**, but new grass seedlings may be injured to varying degrees until the grass has become well established as indicated by vigorous growth and development of tillers and secondary roots.

There are no grazing or having restrictions following **Avalaire Clopyralid 3 SL** applications when used at labeled rates except for export hay from California, Nevada, Oregon and Washington.

## **Application Rates**

Apply **Avalaire Clopyralid 3 SL** as described below for control of spotted and diffuse knapweed, Canada thistle, musk thistle, yellow starthistle and suppression of Russian knapweed. Use the lower labeled application rate for young, actively growing weeds. Use the higher rate under less favorable growing conditions or on dense weed stands and/or larger weeds. **Avalaire Clopyralid 3 SL** may also be tank mixed with 2,4-D at 1/2 to 1 lb per acre where weed species present are susceptible to 2,4-D. **Avalaire Clopyralid 3 SL** may be applied in tank mix combination with other herbicides provided the tank mix product is labeled for the timing and application method for the use site to be treated and tank mixing is not prohibited by the label of the tank mix product. See **Mixing Directions** section. Observe the label of other products used in tank mixtures and follow all applicable label directions. If directions on this label and tank mix partners differ, follow the most restrictive label directions.

Weed Species	Application Rate (pt/A)	Application Timing
Thistle, musk	1/3 - 1 <sup>1</sup>	Apply from rosette to early bolt growth stage.
Thistle, artichoke	1/3 – 2/3	Apply at the rosette growth stage.
Thistle, Italian		
Starthistle, yellow	1/2 - 1	Apply from rosette to mid-bolt growth stage.
Knapweed, diffuse	2/3 – 1	Apply any time plants are actively growing, including fall
Knapweed, spotted		regrowth. Optimum time is from mid bolt to late bud stage of
		growth.
Thistle, artichoke		Apply during the bolting growth stage.
Thistle, Italian		
Thistle, Canada	2/3 – 1 1/3	Apply after the majority of basal leaves have emerged through
		the beginning of the bud stage. Application may also be made
		to fall regrowth up to following a light frost.
Knapweed, Russian	1 – 1 1/3	Apply from bud to mid-flower growth stage or treat fall
		regrowth.

<sup>&</sup>lt;sup>1</sup>Avalaire Clopyralid 3 SL may be applied to musk thistle in the rosette stage at 1/3 pint per acre only when applied in tank mixture with 2,4-D at 1/2 to 1 lb ae per acre. Otherwise, apply Avalaire Clopyralid 3 SL to musk thistle at 2/3 to 1 pint per acre.

## **Exported Grass Hay**

## (California, Nevada, Oregon and Washington ONLY)

Use the following chart if the target grass/hay crop will be exported to clopyralid-sensitive destinations.

Timing of Application	Spring Cutting	Fall Cutting	Spring Cutting Subsequent Year <sup>1</sup>	Fall Cutting Subsequent Year <sup>1</sup>
Before spring cutting	Do not export	May be exported	May be exported	May be exported
After spring cutting	N/A	Do not export	May be exported	May be exported

After fall cutting	N/A	N/A	May be exported	May be exported
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N/A - not applicable

- Make fall applications while grass and weeds are actively growing.
- Make fall applications as close to last cutting as possible in order to reduce clopyralid residues in hay the following year.
- Adequate soil moisture, particularly with fall applications, will help weed control as well as reduce clopyralid
  residues in hay.
- In areas where three cuttings can be made, avoid exporting the first cutting after a clopyralid application.

#### **Precaution:**

 Some forbs (desirable broadleaf forage plants) are susceptible to this product. However, the stand and growth of established perennial grasses is usually improved after spraying, especially when rainfall is adequate and grazing is deferred.

#### **Restrictions:**

- Do not use hay or straw from treated areas for composting or mulching on susceptible broadleaf crops. (See Residues in Plants or Manure section.)
- There are no further restrictions on grazing or hay harvest following application of this product at labeled rates.

## Conservation Reserve Program (CRP) for Seeding to Permanent Grasses Only: Application Timing

Apply **Avalaire Clopyralid 3 SL** when perennial grasses are well established as indicated by vigorous growth and development of tillers and secondary roots. At this stage, most perennial grasses have shown adequate tolerance to this product. For optimum results, apply prior to the flowering stage (still in the bud stage).

## **Application Rate**

For control of actively growing weeds, such as Canada thistle, knapweed (spotted, diffuse, and Russian), and musk thistle, apply 2/3 to 1 1/3 pints of **Avalaire Clopyralid 3 SL** per acre after the majority of basal leaves have emerged up to bud stage. For control of musk thistle rosettes, volunteer sunflower, and wild buckwheat, apply 2/3 pint of this product per acre. For best results; use in 10 gallons or more of water per acre by ground. Increasing the application rate increases the risk of injury.

## Tank Mixes

**Avalaire Clopyralid 3 SL** can also be tank mixed with 1/2 to 1 lb of 2,4-D per acre where species present are sensitive to 2,4-D. 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. See Tank Mixing section under Mixing Directions.

## **Precautions:**

 Conditions of plant stress, such as drought, will increase potential for injury to grasses at all stages of growth.

## **Restrictions:**

- Do not use this product if legumes or bentgrass are a desired cover during CRP.
- Do not apply to newly seeded areas until grass is established.

## **Mesquite Control**

<sup>&</sup>lt;sup>1</sup>If no clopyralid applications are made in subsequent year

## **Application Timing**

The herbicidal response of mesquite is strongly influenced by foliage condition, stage of growth, and environmental conditions. For best results, apply when new growth foliage has turned from light to dark green, when soil temperature is above 75°F at a depth of 12 to 18 inches, and soil moisture is adequate for plant growth. Application should be made within 60 days after the 75°F minimum soil temperature at the 12- to 18-inch depth has been reached. Product performance may be adversely affected if application is made before mesquite foliage has turned from light to dark green or if foliage has been injured or removed by late frost, insects, hail or plant diseases. Do not treat if mesquite exhibits new (light green) terminal growth in response to recent heavy rainfall during the growing season. Rate of soil warm-up at 12- to 18-inch depth may vary with soil texture and drainage. Coarse-textured (sandy) soils warm up sooner than fine-textured (clay) soils and dry soils warm up more quickly than wet soils.

The herbicidal symptoms of mesquite treated with **Avalaire Clopyralid 3 SL** are often different from those resulting from application of other herbicides. In some years, complete burnout and leaf drop of treated mesquite may be delayed and not occur before the first frost. Other herbicidal symptoms often observed could include discoloration and rupture and/or "bleeding" of bark on branches and trunks.

Reapplication during the same growing season is not recommended. Re-treatment will not be effective until woody plants have developed sufficient new foliage to intercept the spray and provide update adequate to control the plant when translocated to the root system. Following mechanical removal, regrowth mesquite should be at least 4 feet all before application of **Avalaire Clopyralid 3 SL**.

Control of rangeland brush or weeds may be unsatisfactory under adverse growing conditions such as severe drought stress.

## **Broadcast Ground or Aerial Application**

Use **Avalaire Clopyralid 3 SL** alone or in combination with [a specialty herbicide product containing 44% triclopyr or a product containing 22% picloram] as specified in the table below.

Brush Species	Application Rates (pt/A)	Specific Use Directions
Mesquite	1 1/3 Avalaire	See <b>Application Timing</b> section for information on treatment
	Clopyralid 3 SL	of mesquite. Apply as a water spray or oil-water emulsion (see
	OR	Mixing Instructions) in a total spray volume of 4 gallons or
	2/3 – 1 1/3 <b>Avalaire</b>	more per acre by air or 10 gallons or more per acre by ground
	Clopyralid 3 SL	application using higher spray volumes with increasing brush
	+	density and height. <b>NOTE</b> : Where control of pricklypear cactus
	44% triclopyr	is desired, the tank mixture of <b>Avalaire Clopyralid 3 SL</b> and
	(refer to product label	22% picloram should be used.
	for use rates)	
	OR	
	2/3 – 1 1/3 <b>Avalaire</b>	
	Clopyralid 3 SL	
	+	
	22% picloram	
	(refer to product label	
	for use rates)	
South Texas mixed	2/3 – 1 1/3 Avalaire	See <b>Application Timing</b> section of the label for information on
brush, including:	Clopyralid 3 SL	treatment of mesquite. Apply in a spray volume of 4 gallons or
mesquite,	+	more per acre by air or 20 gallons or more per acre by ground
pricklypear,	22% picloram	application using higher spray volumes with increasing brush

blackbrush,	(refer to product label	density and height. For best results, apply as an oil-water
twisted acacia,	for use rates)	emulsion. NOTE: Where non-legume species such as granjeno,
catclaw acacia,		oaks, and hackberry predominate, 44% triclopyr at labeled
granjeno and		rates may be substituted for Avalaire Clopyralid 3 SL in the
guajillo		tank mixture with 22% picloram to improve control.

#### Mesquite Control in Stands of Live Oak:

For the control of mesquite growing within stands of live oak, apply **Avalaire Clopyralid 3 SL** alone at 1 1/3 pints per acre. Apply only as a water dilution containing surfactant (0.25% v/v) at a total spray volume of 4 gallons or more per acre aerially. Live oak over-sprayed with **Avalaire Clopyralid 3 SL** may show a 10 to 20% canopy reduction the year of treatment but will recover. Application of **Avalaire Clopyralid 3 SL** in tank mix combination with other herbicides may result in increased injury to live oak.

## **Individual Plant Treatment - Leaf Spray Method:**

For control of mesquite infestations of low to moderate density, **Avalaire Clopyralid 3 SL** may be applied to individual plants with backpack or hand-held sprayers or a vehicle-mounted sprayer with hand-held spray wand or spray gun. For individual plant treatment, use 2 quarts of **Avalaire Clopyralid 3 SL** in combination with 2 quarts of a product containing 44% triclopyr per 100 gallons of total spray solution (1/2 % v/v of each product), or use **Avalaire Clopyralid 3 SL** alone at 3 quarts per 100 gallons of total spray solution. Apply in water or as an oil-water emulsion as described in **Mixing Directions**. If using an oil-water emulsion, add the oil at a rate of 5% of the total spray volume. Apply as a complete spray-to-wet foliar application, including all leaves. Thorough coverage is necessary for good results, but it is not necessary to spray to the point of runoff. The total amount of **Avalaire Clopyralid 3 SL** applied should not exceed 1 1/3 pints per acre. For best results, follow information given in **Application Timing** section and do not spray when mesquite foliage is wet. This application method works best for brush less than 8 feet tall since efficient treatment and thorough coverage of taller brush is difficult to achieve with this method. To minimize drift, select a spray nozzle and pressure that will provide good coverage while forming a coarse spray. Additionally, drift may be reduced by using the minimum pressure necessary to obtain plant coverage without forming a mist and by directing sprays no higher than tops of target plants. If desired, a spray dye may be added to the spray mixture to mark the treated plants.

## Non-Cropland

(Not Registered for Use in Florida)

NOTE: Non-crop uses in California are permitted as long as the maximum use rate for California (2/3 pint per acre per annual growing season) is not exceeded. See section for California below.

**Avalaire Clopyralid 3 SL** may be applied in non-cropland areas, such as fencerows, around farm buildings and equipment pathways. For use on non-crop areas, such as industrial manufacturing and storage sites, and rights-of-way, such as along roadsides, electrical power lines, communication lines, pipelines and railroads, including grazed areas on these sites and forest spot application adjacent to these sites. **Note: Avalaire Clopyralid 3 SL** is not registered

for use in landscaping or on turfgrass or lawns.

## **Application Rate:**

For control of broadleaf weeds, apply 1/4 to 1 1/3 pints of **Avalaire Clopyralid 3 SL** per acre. Use a non-ionic surfactant in spray

mixtures at 1 to 2 quarts per 100 gallons of spray mixture. The lower rate of 1 /4 pint per acre provides acceptable control of weeds only under highly favorable growing conditions and when plants are 1 to 3 inches tall. Apply 1/2 pint per acre when weeds are 3 to 6 inches tall or under dry conditions. Where Canada thistle or knapweeds are the primary pest, best results are obtained by applying 2/3 to 1 1/3 pints of **Avalaire Clopyralid 3 SL** per acre after basal leaves are produced or in the fall up to and following a light frost. **Avalaire Clopyralid 3 SL** can be applied in an invert emulsion using oil and an appropriate inverting agent. Follow label directions of the inverting agent. Established grasses are tolerant to **Avalaire Clopyralid 3 SL**, but new grass seedlings may be injured to varying degrees until the

grass has become well established as indicated by vigorous growth and development of tillers and secondary roots.

## High-Volume Leaf Stem Application (Ground) (for control of mesquite with Individual Plant treatments on rangeland see the Mesquite Control section below):

For control of broadleaves and certain woody plants (e.g., mesquite), use 1 to 3 quarts of **Avalaire Clopyralid 3 SL** per 100 gallons of total spray. Thorough coverage is necessary for good results; therefore, apply as a complete spray to wet foliar application, including all leaves, stems, and root collars, but do not apply more than a total of 1 1/3 pint of **Avalaire Clopyralid 3 SL** per acre. To minimize drift, use low spray pressure and keep sprays no higher than the tree crowns. Trees taller than 8 feet in height may be difficult to treat efficiently and obtain thorough coverage. Unsatisfactory control may result if application is made when brush and weeds are under severe drought stress or other adverse conditions that inhibit plant growth. Environmental conditions may significantly influence results. For best results on mesquite, apply in the spring or early summer, 40 to 90 days after the first green growth appears and when soil moisture is adequate for active growth. A soil temperature of 75 to 83°F at a depth of 12 to 18 inches is optimal for good plant kills. Soil temperature of less than 75°F at this depth will reduce the ultimate root kill of mesquite.

## **California Only:**

For use on forests, non-crop areas, such as manufacturing and storage sites, roadsides, electrical power lines, communication lines, pipelines and railroads, including grazed areas on these sites. Use rates as described above up to the maximum use rate for California (2/3 pint per acre per annual growing season).

## **Kudzu Control:**

(Not Registered for Use in California)

#### **Restriction:**

In Florida, use Avalaire Clopyralid 3 SL only for the control of kudzu in forests, utility rights-of-way, roadsides, fence lines, and other non-crop areas in the following counties: Baker, Bay, Bradford, Calhoun, Columbia, Escambia, Franklin, Gadsden, Gulf, Hamilton, Holmes, Jackson, Jefferson, Lafayette, Leon, Liberty, Madison, Okaloosa, Santa Rosa, Suwannee, Taylor, Union, Wakulla, Walton, and Washington.

Use **Avalaire Clopyralid 3 SL** to control kudzu in rangeland, forests, utility rights-of-way, roadsides, and other noncrop areas in established plantings of tolerant tree species as a broadcast foliar spray over trees, as a banded or directed spray (in a spray volume of 10 gallons or more per acre), or as a spot application. Apply **Avalaire Clopyralid 3 SL** between late June and early October as long as the kudzu is actively growing and not under drought stress. The ideal application time is during vigorous growth and just prior to or during flowering. Only kudzu that has emerged at the time of application will be affected. See **Application Timing** section.

## **Broadcast Application (Ground or Aerial):**

Apply at a rate of 2/3 to 1 1/3 pint of **Avalaire Clopyralid 3 SL** (equivalent to 0.25 lb to 0.5 lb ae) per acre. Make sequential applications as long as the total rate per annual growing season does not exceed 1 1/3 pint per acre. Do not apply more than 1 1/3 pint per acre per year. The lower rate of 2/3 pint per acre provides acceptable control of kudzu under highly favorable plant growing conditions only and when plants are no larger than 3 to 6 inches tall. Spray volumes of 20 gallons or more per acre for ground roadside and rights-of-way applications and spray volumes of 5 gallons or more per acre for aerial applications will ensure adequate coverage. **Avalaire Clopyralid 3 SL** can be applied in an invert emulsion using oil and an appropriate inverting agent. Follow label directions of the inverting agent.

For Spot Applications see the Spot Application section above.

## **Specific Use Precautions:**

Application of Avalaire Clopyralid 3 SL to broadleaf (hardwood) tree species may cause some leaf burning

- and malformation. This injury is transient in nature, except for plants in the legume family which may be killed if sprayed or if the application is made under the legume tree canopy. Addition of surfactant or crop oil may increase the severity of this injury.
- True firs (grand, noble, and pacific silver firs) show more needle curling than other conifers when higher rates are used. Use lower rates in the rate range for broadcast applications or use directed sprays where possible if needle curling is undesirable.
- Application of **Avalaire Clopyralid 3 SL** to plants in the legume family (such as locust, redbud, mimosa and lupine) or to box elder, persimmon or sassafras will cause severe damage or destruction of such plants.

## **Tank Mixes:**

To improve spectrum of weed control, or to increase control of more mature weeds, **Avalaire Clopyralid 3 SL** may be tank mixed with 0.5 to 2 lb a.e. of 2,4-D amine per acre or low volatile ester herbicide or other herbicides registered for this use site. 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. See Tank Mixing section under Mixing Directions.

• This product is not registered for use in landscaping or on turfgrass or lawns.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store above 28°F or warm to 40°F and agitate before use. Store in original containers only. 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:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

## **CONTAINER HANDLING:**

[Nonrefillable Rigid Container ≤ 5 Gallons: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.]

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

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by state and local authorities.]

[Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

## LIMITATION OF WARRANTY AND LIABILITY

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

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

## [Avalaire Clopyralid 3 SL] is a trademark of Avalaire, LLC

[Stinger®] [Reclaim®] [and] [Transline®] [is a] [and] registered trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow.

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

CLOPYRALID GROUP 4 HERBICIDE

## Avalaire Clopyralid 3 SL™

[Alternate Brand Name: Syphon 3 L]

ACTIVE INGREDIENT:	(% by weight)
Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid,	
monoethanolamine salt	40.9%
OTHER INGREDIENTS:	<u>59.1%</u>
TOTAL	100.0%
Acid Equivalent: clopyralid: 3,6-dichloro-2-pyridinecarboxylic	acid - 31% (3
lb/gal)	
	Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt

# KEEP OUT OF REACH OF CHILDREN CAUTION

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

	FIRST AID
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
	Call a poison control center or doctor for further treatment advice.
If on skin	Take off contaminated clothing.
or clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.

#### HOT LINE NUMBER

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

#### For Chemical Emergency

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

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. 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:** Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes. **Groundwater Advisory:** Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your

local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater. **Surface Water Advisory:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching surface water via runoff for several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of clopyralid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store above 28°F or warm to 40°F and agitate before use. Store in original containers only. 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:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### **CONTAINER HANDLING:**

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

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by state and local authorities.]

[Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

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

Manufactured for: **Avalaire, LLC** 1204 Village Market Place, #173 Morrisville, NC 27560 EPA Reg. No. 93930-20 EPA Est. No. \_\_\_\_\_ NET CONTENTS: