ISOCYCLOSERAM | GROUP 30 | INSECTICIDE

Escanee QR para Español

Vykenda®

syngenta®

Insecticide/Miticide

PLINAZOLIN® technology*

For control of listed insect pests of:

- Ornamental plants; ornamental bulb, corm, and tuber crops; evergreen (including conifer) and deciduous trees, and Christmas trees
- Vegetable plants, fruit and nut trees, vines, and small fruits grown for resale to consumers

For application to field and container grown plants produced in greenhouses and nurseries (including shade houses, lath houses and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries, forest nurseries, Christmas tree farms and interior plantscapes.

1 quart
Net Contents

PULL HERE TO OPEN

Active Ingredient:	
Isocycloseram**	18.3%
Other Ingredients:	81.7%
Total:	100.0%

**PLINAZOLIN® technology denotes the Syngenta trademark for the active ingredient isocycloseram*

**CAS No. 2061933-85-3

Vykenda® is formulated as a suspension concentrate and contains 1.67 lb of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

See additional Precautionary Statements and Directions for Use inside booklet.

EPA Reg. No. 100-1703
EPA Est. 072344-MO-004

SCP 1703B-L1 1125
4242872

TABLE OF CONTENTS

1.0 FIRST AID

PRECAUTIONARY STATEMENTS

2.0 PRECAUTIONARY STATEMENTS
- **2.1 Personal Protective Equipment (PPE)**
- **2.2 User Safety Requirements**
- **2.3 User Safety Recommendations**
- **2.4 Environmental Hazards**
  - 2.4.1 Surface Water Advisory
  - 2.4.2 Surface Water Protection Statement
  - 2.4.3 Pollinator Precautions
  - 2.4.4 Non-Target Organism Advisory
  - 2.4.5 Reporting Ecological Incidents
  - 2.4.6 Physical or Chemical Hazards

DIRECTIONS FOR USE

3.0 PRODUCT INFORMATION
- **3.1 Resistance Management**
  - 3.1.1 Maintaining Susceptibility to This Class of Chemistry
  - 3.1.2 Other Insect Resistance Management (IRM) Practices
  - 3.1.3 Other Sources for Information on Insect Resistance Management
- **3.2 Integrated Pest Management (IPM)**

4.0 APPLICATION DIRECTIONS
- **4.1 Methods of Application**
  - 4.1.1 Automatic Cold Fogger Applications (Greenhouses) Not Registered for Use By California
  - 4.1.2 Electrostatic Applications

DIRECTIONS FOR USE *(continued)*

4.2 Application Equipment
- 4.2.1 Nozzles
- 4.2.2 Pump

4.3 Application Volume and Spray Coverage

4.4 Mixing Directions
- 4.4.1 Vykenda Alone
- 4.4.2 Tank-Mix Precautions
- 4.4.3 Tank-Mix Compatibility
- 4.4.4 Vykenda in Tank Mixtures
- 4.4.5 Spray Additives

4.5 Application through Irrigation Systems (Chemigation)
- 4.5.1 Application Directions for Overhead Irrigation Systems
- 4.5.2 Operating Instructions for Chemigation
- 4.5.3 Specific Instructions for Public Water Systems

5.0 RESTRICTIONS AND PRECAUTIONS

5.1 Use Restrictions

5.2 Mandatory Runoff Mitigation

5.3 Spray Drift Management
- 5.3.1 Importance of Droplet Size
- 5.3.2 Controlling Droplet Size – Ground Boom
- 5.3.3 Release Height – Ground Boom
- 5.3.4 Hooded (or Shielded) Sprayers
- 5.3.5 Temperature and Humidity
- 5.3.6 Temperature Inversions
- 5.3.7 Wind
- 5.3.8 Measuring Wind Speed and Wind Direction

6.0 ORNAMENTALS

6.1 Endangered and Threatened Species Protection Requirements

6.2 Foliar Applications

DIRECTIONS FOR USE *(continued)*

7.0 USE DIRECTIONS-Production of Vegetable Plants and Fruit and Nut Trees for Retail Sale to Consumers
- **7.1 Endangered and Threatened Species Protection Requirements**
- **7.2 Brassica Head and Stem Vegetables, Crop Group 5-16**
- **7.3 Brassica Leafy Greens, Crop Subgroup 4-16B (except Watercress)**
- **7.4 Bulb Vegetable Group, Crop Group 3-07**
- **7.5 Citrus Fruit, Crop Group 10-10**
- **7.6 Cucurbit Vegetables, Crop Group 9**
- **7.7 Fruiting Vegetables, Crop Group 8-10**
- **7.8 Leafy Greens, Crop Subgroup 4-16A**
- **7.9 Pome Fruit, Crop Group 11-10**
- **7.10 Stone Fruit, Crop Group 12-12**
- **7.11 Tree Nuts**

8.0 USE DIRECTIONS-Production of Juvenile Berry, Fruits and Vines for Retail Sale[1]
- **8.1 Endangered and Threatened Species Protection Requirements**
- **8.2 Foliar Applications**

9.0 STORAGE AND DISPOSAL

10.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

11.0 APPENDIX – Complete Crop Group Listings

1.0 FIRST AID

FIRST AID
Have the product container or label with you when calling a poison control center or doctor or going for treatment.
SYNGENTA HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372**

PRECAUTIONARY STATEMENTS

2.0 PRECAUTIONARY STATEMENTS

2.1 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks

2.2 User Safety Requirements

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

2.3 User Safety Recommendations

User Safety Recommendations

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

2.4 Environmental Hazards

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

2.4.1 SURFACE WATER ADVISORY

This product may impact surface-water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several months or more 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 isocycloseram from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is expected to occur within 48 hours after application. When irrigation is required within 48 hours after application, avoid irrigating to the point of runoff. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

2.4.2 SURFACE WATER PROTECTION STATEMENT

For outdoor applications, do not apply during rain.

2.4.3 POLLINATOR PRECAUTIONS

This product is highly toxic to bees and other pollinating insects exposed to direct treatment, or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.

The following Best Management Practices (BMPs) can help reduce risk to pollinators:

- Develop and maintain clear communication with local beekeepers to help protect bees. To the extent possible, advise beekeepers within a 1-mile radius 48-hrs in advance of the application, and confirm hive locations before spraying.
- Avoid applications during bloom.
- Avoid applications when bees are actively foraging.
- Apply pesticides in the evening or early morning hours when fewer bees are foraging.
- Use Pollinator Protection Plans when they are available. These plans may be available from state lead agencies and promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees and other pollinators to pesticides.
- Use integrated pest management to prevent or mitigate potential negative effects to pollinators and consider multiple management options before resorting to a pesticide application.
- Avoid applying pesticides to plants in bloom, including flowering weeds.
- Mow understory weeds or cover crops in field nurseries to prevent flowering of weeds and reduce exposure to bees where and when pesticides are applied.

The following Best Management Practices (BMPs) can help promote the health and habitat of ground-nesting bees:

- For uncultivated land, leave large undisturbed patches of land unmowed and untilled to provide nesting and forage sites.
- For uncultivated land, mow at the highest cutting height possible (minimum of 8-10 inches if possible) to increase and diversify food sources.

For additional resources on pollinator BMPs and Pollinator Protection Plans, visit https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators.

2.4.4 NON-TARGET ORGANISM ADVISORY

This pesticide is toxic to fish and highly toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not apply when weather conditions favor drift from target areas.

2.4.5 REPORTING ECOLOGICAL INCIDENTS

For guidance on reporting ecological incidents, including death, injury, or harm to plants and animals, including bees and other non-target insects, see EPA's Pesticide Incident Reporting website: https://www.epa.gov/pesticide-incidents or call Syngenta Crop Protection at 1-866-796-4368

2.4.6 PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow to come into contact with oxidizing agents. 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.

Vykenda must be used only in accordance with instructions on this label, in a supplemental label or in state-specific 24(c) labeling. Always read the entire label, including the Conditions of Sale and Limitation of Warranty and Liability.

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

FAILURE TO FOLLOW THE USE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY, POOR PEST CONTROL, AND/OR ILLEGAL RESIDUES.

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
- Socks
- Shoes
- Chemical-resistant gloves made of any waterproof material

Exception: If product is drenched or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. No REI is required following a soil-incorporated or a soil-drench application.

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.

Keep children and pets out of the treated area until sprays have dried.

3.0 PRODUCT INFORMATION

Vykenda is a broad-spectrum insecticide and miticide containing the active ingredient isocycloseram applied as a broadcast or directed spray to control many important insect and mite pests of ornamental crops. All applications must be made according to the use directions that follow.

3.1 Resistance Management

Some insect or mite pests are known to develop resistance to products after repeated use. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the use area. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects or mites listed on this label.

For resistance management, Vykenda contains a Group 30 insecticide/miticide. Any insect or mite population may contain individuals that are inherently resistant to Vykenda and other Group 30 insecticides/miticides. The resistant individuals may eventually dominate the insect or mite population if this group of insecticides/miticides are used repeatedly in the same use areas. Appropriate resistance management strategies should be followed.

If resistance to this product develops in your area, this product, or other products with a similar mode of action may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect or mite may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative for the best alternative method of control for your area.

To delay insecticide and miticide resistance, take the following steps:

- Rotate the use of Vykenda or other Group 30 insecticides/miticides within a growing season, or across growing seasons, with different groups that control the same pest(s).
- Use tank mixtures with insecticides and miticides from different groups that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
    - Individual insecticides or miticides selected for use in mixtures should be highly effective for use against the target species.
    - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
    - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
    - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
    - Insect and mite resistance management benefits of an insecticide or miticide mixture are greatest if the two components have similar periods of residual activity. Mixtures of insecticides or miticides with unequal periods of residual activity may offer a resistance management benefit only for the period where both insecticides or miticides are active.
- Adopt an integrated pest management program for insecticide and miticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist.
- Contact your local extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact your local Syngenta representative.

3.1.1 MAINTAINING SUSCEPTIBILITY TO THIS CLASS OF CHEMISTRY

- Avoid using Group 30 insecticides/miticides exclusively for season long control of insect or mite species with more than one generation per year.
- For insect or mite species with successive or overlapping generations, apply Vykenda or other Group 30 insecticides/miticides using a “treatment window” approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (soil, foliar, unless otherwise stated) of the

Group 30 insecticides/miticides. Do not exceed the maximum rate of Vykenda allowed per year.

- Following a treatment window of Group 30 insecticides/miticides, rotate to a treatment window of effective products with a different mode of action before making additional applications of Group 30 insecticides/miticides.
- A treatment window rotation, along with other IPM practices for the use area, is considered an effective strategy for preventing or delaying a pest's ability to develop resistance to these classes of chemistry.
- If resistance is suspected, do not reapply Vykenda or other Group 30 insecticides/miticides.

3.1.2 OTHER INSECT RESISTANCE MANAGEMENT (IRM) PRACTICES

- Incorporate IPM techniques into your insect or mite control program.
- Monitor treated insect or mite populations for loss of field efficacy.
- Use tank-mixtures or premixes with insecticides/miticides from a different target site of action group if the products are all registered for the same use and effective rates are applied.

3.1.3 OTHER SOURCES FOR INFORMATION ON INSECT RESISTANCE MANAGEMENT

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: http://www.irac-online.org/

3.2 Integrated Pest Management (IPM)

Vykenda should be integrated into an overall insect and mite management strategy that includes selection of plant species and varieties with insect and mite tolerance, optimum plant populations, proper fertilization, pruning, plant debris removal and management, and proper timing and placement of irrigation.

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

Vykenda may be applied with foliar spray equipment commonly used for making ground applications to ornamental plants. Proper adjustments and calibration of foliar spray equipment are essential to canopy penetration and coverage and for providing optimum insect and mite control.

Spray equipment to make foliar applications of Vykenda include, but are not limited to:

- Hydraulic Boom Sprayer
- Electrostatic Sprayer
- Airblast Sprayer
- Mechanically Pressurized Handgun
- Backpack
- Hand Pressurized Hand Wand
- Automatic Cold Fogger (See Section 4.1.1)
- Chemigation

4.1.1 AUTOMATIC COLD FOGGER APPLICATIONS (GREENHOUSES) NOT REGISTERED FOR USE BY CALIFORNIA

Applications can be made in greenhouses with automatic cold fogger equipment (such as Dramm AutoFog™). Apply the same amount of Vykenda per treated unit area as would be applied in a dilute spray volume to the same area.

Do not apply through cold fogger equipment when workers are present in the greenhouse during the application.

4.1.2 ELECTROSTATIC APPLICATIONS

Applications can be made in greenhouses with electrostatic application equipment. Apply the same amount of Vykenda per treated unit area as would be applied in a dilute spray volume to the same area.

4.2 Application Equipment

4.2.1 NOZZLES

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 50-mesh or coarser.
- Do not place a screen in the recirculation line.
- Check nozzle manufacturer's recommendations.

4.2.2 PUMP

- Use a pump with capacity to:
  1. Maintain the recommended psi for the nozzles being used to apply the spray mixture.
  2. Provide sufficient agitation in tank to keep mixture in suspension
     - this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.
- Use 50-mesh or coarser screens between the pump and boom, and, where required, at the nozzles.

4.3 Application Volume and Spray Coverage

Vykenda must be diluted with water before application. Apply in a volume of water that provides good coverage of the foliage.

4.4 Mixing Directions

4.4.1 VYKENDA ALONE

1. Add ½-⅔ of the required amount of water to the spray or mixing tank.
2. With the agitator running, add Vykenda to the tank.
3. Continue agitation while adding the remainder of the water
4. Begin application of the spray solution after Vykenda has completely dispersed into the mix water.
5. Maintain agitation until all the mixture has been sprayed.

4.4.2 TANK-MIX PRECAUTIONS

Vykenda is compatible with many commonly used fungicides, liquid fertilizers, insecticides, and biological control products. 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.

4.4.3 TANK-MIX COMPATIBILITY

The physical compatibility of Vykenda will vary with different sources of pesticide products and local cultural practices. To ensure the physical compatibility of the mixture, prepare a mix on a small scale (such as a pint or quart jar) using the proper proportions of pesticides and water.

4.4.4 VYKENDA IN TANK MIXTURES

Always shake each product container well before use. Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after the addition of each product.

1. Water-soluble bags
2. Water-dispersible granules
3. Wettable powders
4. Vykenda and other water-based suspension concentrates
5. Water-soluble concentrates
6. Emulsifiable concentrates
7. Adjuvants, surfactants, oils
8. Soluble fertilizers
9. Drift retardants

4.4.5 SPRAY ADDITIVES

The use of an adjuvant product may enhance the performance of Vykenda allowing for improved distribution to the targeted plant surface or to the insect pest. Adjuvants may also be beneficial when applications are made to plants with waxy or difficult to wet leaf surfaces.

- When considering the use of an adjuvant, it is recommended to select a product certified by the Council of Producers and Distributors of Agrotechnology (CPDA).
- The adjuvant should contain use directions for the intended application.
- A tank mix compatibility evaluation (i.e., jar test) should be conducted to confirm the mixture is physically compatible.
- Evaluate the application of the tank mix to a small area of representative plants to confirm plant safety before applying on a larger scale.

4.5 APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

4.5.1 APPLICATION DIRECTIONS FOR OVERHEAD IRRIGATION SYSTEMS

- Apply this product through overhead, hand-held, or micro-irrigation systems, and motor-

ized, calibrated irrigation systems either alone or with other pesticides that are registered for application through irrigation systems. Dilution ratios are typically 1:100 to 1:200. Do not apply this product through any other type of irrigation system.

- Plant injury and/or poor insect control, or illegal pesticide residues can result from non-uniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- Use only with drive systems which provide uniform water distribution.
- Chemical tank and injector system should be thoroughly cleaned and flushed with clean water prior to use.
- Do not apply when winds are greater than 15 mph to avoid drift or wind skips.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Thorough coverage of foliage is required for good control.
- Good agitation should be maintained in the tank during the entire application period.
- **DO NOT** apply via end-gun chemigation.

For Chemigation

If unmanaged areas are present less than 25 ft from the application site, the following restrictions apply for applications via overhead chemigation systems, such as center pivot or traveler systems:

- Turn off end-guns AND select from two of the following:
- Reduce the pressure to ≤20 lbs per square inch (psi).
- Reduce the release height to ≤5 feet from the ground or top of target vegetation.
- Maintain a downwind drift barrier (windbreak, hedgerow, or shelterbelt) from the application site based on the description of this measure on EPA's mitigation menu website (https://www.epa.gov/pesticides/mitigation-menu).

Unmanaged areas are defined in comparison to managed areas--anything that is not a managed area is an unmanaged area. Refer to the Spray Drift Mitigation section of the label for more information on managed areas.

For Non-End Gun Impact Sprinkler Chemigation Systems

If unmanaged areas are present less than 25 ft from the application site, the following restrictions apply when making applications with non-end gun impact sprinkler chemigation systems:

- Limit the throw distance to the edge of the field. This can be accomplished by reducing the pressure or reducing the throw angle.
- Maintain a downwind drift barrier (windbreak, hedgerow, or shelterbelt) based on the description on EPA's mitigation menu website (https://www.epa.gov/pesticides/mitigation-menu).

Unmanaged areas are defined in comparison to managed areas--anything that is not a managed area is an unmanaged area. Refer to the Spray Drift Mitigation section of the label for more information on managed areas.

Windbreak-Shelterbelt Criteria

Both basic and advanced windbreaks or shelterbelts (e.g., trees or riparian hedgerows) between the application site and non-managed area must be present and meet the following criteria for 50% and 75% wind-directional buffer distance reductions, respectively:

- The windbreak or shelterbelt must be downwind between the pesticide application and the non-managed area.
- The windbreak or shelterbelt must run the full length of the treated area with no significant breaks in the vegetation.
- The windbreak or shelterbelt foliage must be sufficiently dense such that the non-managed area is not visible from the upwind side at the time of application.
- The windbreak or shelterbelt must be planted according to local/regional/federal conservation program standards; however, no state or federally listed noxious or invasive trees or shrubs should be planted.
- The windbreak or shelterbelt must be maintained such that their functionality is not compromised.
- For basic windbreaks (50% reduction)
  - The height of the trees in the windbreak or shelterbelt must be at the same height or above the release height of the application.

- The windbreak must have a minimum of one row of trees and/or shrubs or a 4-foot-wide strip of nonwoody vegetation.
- A semi-permeable manmade structure, curtain, or netting that is raised prior to application can be used instead of a windbreak or shelterbelt. This structure must be downwind between the pesticide application and the non-managed area, cover the entire distance of field adjacent to non-managed area, and at the same height or higher than the release height of the application.

• For advanced windbreak-shelterbelt (75% reduction)
- The height of the trees in the windbreak or shelterbelt must be at a height that is at least twice as high as the release height of the application.
- The windbreak or shelterbelt must have a minimum of two or more rows of trees and/or shrubs with a mixture of vegetation types (e.g., trees, shrubs, herbs), or that have 8 or more feet of depth for herbaceous (nonwoody) vegetation.
- A semi-permeable manmade structure, curtain, or netting that is raised prior to application can be used instead of a windbreak or shelterbelt. This structure must be downwind between the pesticide application and the non-managed area, cover the entire distance of field adjacent to non-managed area, and at a height that is at least twice as high as the release height of the application.

Solid-Set, Hand-Move, and Moving-Wheel Irrigation

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying Vykenda through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Vykenda required to treat the area covered by the irrigation system.
- Add the required amount of Vykenda into the same quantity of water used to calibrate the injection application.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Vykenda solution has cleared the last sprinkler head.

4.5.2 OPERATING INSTRUCTIONS FOR CHEMIGATION

1. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

4.5.3 SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back-flow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

5.0 RESTRICTIONS AND PRECAUTIONS

5.1 Use Restrictions

- See **Sections 6.0, 7.0, and 8.0** for use-specific restrictions.

GROUND APPLICATION RESTRICTIONS

Observe the following restrictions when making ground applications in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish ponds.

- **DO NOT** apply by aerial application
- **DO NOT** apply when weather conditions favor drift to aquatic areas.
- **DO NOT** apply when gusts or sustained winds exceed 15 mph.
- **DO NOT** apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.
- **DO NOT** apply via end-gun chemigation.
- **DO NOT** apply when soils are saturated or above field capacity.
- **DO NOT** apply during rain.

For outdoor application sites, follow spray drift buffer requirements in **Section 5.2.**

- **DO NOT** use in Hawaii except for indoor/greenhouse production. Outdoor use in Hawaii is prohibited.

5.2 Mandatory Runoff Mitigation

- **DO NOT** apply when soils are saturated or above field capacity.
- **DO NOT** apply during rain.

Applicators must access and search Bulletins Live! Two (BLT) at https://www.epa.gov/pesticides/bulletins within six months prior to or on the day of the application to determine whether the application site falls within a Pesticide Use Limitation Area (PULA). If you are located inside a PULA, follow the instructions in the "Inside a PULA" section below and in the BLT bulletin. If the application site falls outside of a PULA, follow the instructions in the "Outside a PULA" section below.

Outside a PULA:

TWO mitigation points are required for all crops listed on this label. Follow the steps below to determine which applications need to achieve points, determine your eligibility for mitigation relief, and determine options to achieve mitigation points.

Inside PULAs:

Different runoff/erosion mitigation point(s) are required inside specific PULAs. Access Bulletins Live! Two within 6 months prior to or on the day of the application to determine if you are inside a PULA. If your application site is located within a PULA, points are required for all uses. Access the BLT to determine the total number of points required. Follow the steps below to determine which applications need to achieve the points, determine eligibility for mitigation relief, and determine options to achieve mitigation points.

Steps to Achieve Points:

Step A. To achieve the mitigation points specified above, visit EPA's mitigation menu website (www.epa.gov/pesticides/mitigation-menu) to determine which applications need to achieve points and for a full list of mitigations and mitigation relief options.

Step B. Determine if you are eligible for mitigation relief. Runoff/erosion mitigation is NOT needed if certain field/application parameters are present at the time of application (*e.g.*, subsurface or tile drains with controlled outlet, perimeter berm systems, irrigation tailwater return systems, etc.). Refer to the mitigation menu for a complete list of field/application parameters.

Step C: If the application site does not meet the field/application parameters specified on EPA's mitigation menu website, choose among the mitigation and/or mitigation relief options on EPA's mitigation menu website to meet or exceed the required points noted on this label before applying this product.

Step D: To achieve mitigation points for the application, the mitigation and mitigation relief measures must be:

- Employed in accordance with the instructions and descriptions on EPA's Mitigation Menu Website.
- In place during the application unless a different timing (such as before or after application) is specifically provided in the measure's description on EPA's Mitigation Menu Website.

Step E. Additional restrictions may be present in bulletins—always follow the most restrictive bulletin instructions. If you are located in an area where PULAs overlap, follow the most restrictive requirements across all bulletins. When tank mixing, the most restrictive requirements must be followed between the products' labels and bulletins.

EPA may periodically update the Mitigation Menu Website, for example, by adding new mitigation measures or updating a mitigation measure description.

5.3 Spray Drift Management

MANDATORY SPRAY DRIFT MITIGATION

DO NOT APPLY VIA AERIAL APPLICATION EQUIPMENT

For All Applications:

- During application, the Sustained Wind Speed, as defined by the National Weather Service (standard averaging period of 2 minutes), must register between 3 and 15 miles per hour.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- Wind speed and direction must be measured on location using a windsock, an anemometer (including systems to measure wind speed) or an aircraft smoke system.
- Wind speed must be measured at the release height or higher, in an area free from obstructions such as trees that are not the target crop, buildings, and equipment.
- **DO NOT** apply during temperature inversions.

Ground boom Applications:

- Select nozzle and pressure that deliver medium or coarser spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with the most current American Society of Agricultural & Biological Engineers standards (ASABE S572).
- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but do not exceed a boom height of 4 feet above ground or plant canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions.

Airblast Applications:

- Sprays must be directed into the canopy.
- User must turn off outward pointing nozzles at the row end and when spraying outer row.

For ground and airblast applications, always maintain a no-application area (buffer) from the downwind edge of the last spray pass and any non-managed area (i.e., the protection area). Non-managed areas are defined as anything that is not part of the "managed areas" listed below.

Downwind managed areas that can represent spray drift buffers for agricultural (e.g., sod farms) use patterns.

When spray drift buffers are identified as mitigation, the following managed areas can be included as part of the buffer footage if they are downwind and are immediately adjacent/contiguous to the treated field and people are not present in those areas (including inside closed buildings/structures). If the pesticide product label or bulletin, or the state or local government in which the application area is located has a requirement that prohibits or restricts spray drift in any area, including these specific managed areas, that prohibition/restriction must be followed.

- Agricultural fields, pastures, forage fields, and private rangelands, including untreated portions of the treated area.
- Roads, paved or gravel surfaces, mowed grassy/fallowed areas adjacent to the treated area, and areas of bare ground from recent plowing or grading that are contiguous with the treated area;
- On-site buildings and their perimeters, silos, or other man-made structures with walls and/or roof;
- Areas present and/or maintained as a runoff/erosion measure as listed on EPA's Mitigation

Menu website. Examples include vegetative filter strips (VFS), field borders, grassed waterways, vegetated ditches, riparian areas, managed/constructed wetlands, or other areas of intentional habitat improvement;

- Areas present and/or maintained as a drift buffer reduction measure as listed on EPA's Mitigation Menu website. Examples include vegetative windbreaks, hedgerows, shelterbelts, riparian areas, private forests, woodlots, and shrublands;
- Conservation Reserve Program (CRP) and Agricultural Conservation Easement Program (ACEP) lands (applicators may need to ensure that pesticide use does not cause degradation of the CRP habitat).
- On-site contained irrigation water resources that are not connected to adjacent water bodies, including on-site irrigation canals and ditches, water conveyances, managed irrigation/runoff retention basins, ponds, and tailwater collection ponds.

For Spray Drift Buffers for Broadcast Applications

Applicators must access and search Bulletins Live! Two (BLT) at https://www.epa.gov/pesticides/bulletins within six months of the application to determine whether the application site falls within a Pesticide Use Limitation Area (PULA) that has a Bulletin in BLT. Wind-directional ecological spray drift buffers are required for applications as follows in **Table A**:

Table A. Ecological Spray Drift Buffers

Application Method	Droplet Size Distribution (DSD)	Minimum Buffer Distance for agricultural sites (e.g., Nurseries)	Minimum Buffer Distance for non-agricultural sites (e.g., Golf courses)
Ground boom for field crops (2–4 foot boom height)	Medium or coarser	25 ft	
Ground (< 2 foot boom height)	Coarse or coarser		15 ft
Airblast Sprayer	NA	85 ft	

DSD = droplet size distribution; NA = not applicable

Reduction Options for Ecological Wind-Directional Drift Buffers:

The applicator may choose among the ecological drift buffer reduction options on EPA's Mitigation Menu Website (https://www.epa.gov/pesticides/mitigation-menu) to reduce the wind-directional ecological buffer distance before applying this product. All buffer reduction options selected must align with the minimum droplet size and release height requirements on this label.

To reduce the buffer distance for the application, the buffer reduction options must be employed in accordance with the instructions and descriptions on EPA's Mitigation Menu Website. These buffer reduction options do not apply to areas occupied by humans for residential or commercial purposes (such as lawns, sidewalks, outdoor recreational areas, athletic fields, buildings/homes, farmworker housing, schools, daycare centers, nursing homes, and hospitals).

When using more than one option during the application, the buffer distances may be added together. Combining multiple buffer reduction options can eliminate the need for an ecological wind-directional buffer altogether.

When tank mixing, the most restrictive of the products' label or bulletin requirements must be followed (*e.g.*, drift buffers that are not wind-directional, Application Exclusion Zone drift requirements, drift buffers to residences, schools, and parks where bystanders could be present, use prohibitions, timing restrictions, and application method prohibitions).

SPRAY DRIFT ADVISORIES

This section is intended to provide additional information for applicators to assist in implementing the mandatory spray drift mitigations above.

5.3.1 IMPORTANCE OF DROPLET SIZE

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

5.3.2 CONTROLLING DROPLET SIZE – GROUND BOOM

- Volume – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Consider using the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

- Pressure – Using the lowest spray pressure recommended for the nozzle will produce the target spray volume and droplet size.
- Spray nozzle – Consider using a spray nozzle that is designed for the intended application, as well as using nozzles designed to reduce drift.

5.3.3 RELEASE HEIGHT – GROUND BOOM

For ground equipment, the boom should remain level with the crop and have minimal bounce. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.

5.3.4 HOODED (OR SHIELDED) SPRAYERS

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

5.3.5 TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, consider using larger droplets to reduce effects of evaporation.

5.3.6 TEMPERATURE INVERSIONS

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

5.3.7 WIND

Drift potential generally increases with wind speed. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

5.3.8 MEASURING WIND SPEED AND WIND DIRECTION

Best management practices for measuring wind speed and wind direction:

- Applicators should check and acquire the predicted wind speed and direction for the application site within 12 hours prior to conducting applications to determine the time periods wind speed is likely to fall outside the applicable thresholds.
- Applicators should reassess wind speed and direction at the application site at least every hour while applications are in progress.
- Measuring wind speed and direction can be done by:
  - Relying on equipment on the application equipment that measures wind speed.
  - Using a tower anemometer with telemetry or handheld anemometer. Users should read user manual on how to calibrate, operate and interpret the output from an anemometer. Ground applicators should stop at least every hour to take a reading with a tower anemometer with telemetry or handheld anemometer. Some anemometers may have software that would allow users to view wind measurements in real time while making an application, and, in those cases, applicators would not have to stop to take measurements.
  - Using a windsock. Wind can be estimated with a windsock using the strips on a windsock. The applicator should consult the user manual for the windsock on wind speed estimation and direction of wind. Applicators should look at the sock at least every hour to estimate wind speed and direction. The windsock should be pointed in the opposite direction of the windbreak and the non-managed area.
  - Checking behind the spray rig at least every hour to see if the spray has changed direction from when the application started.

6.0 ORNAMENTALS

Apply Vykenda for the control of listed insect pests of:

- Ornamental plants; ornamental bulb, corm, and tuber crops; evergreen (including conifer) and deciduous trees, and Christmas trees
- Vegetable plants, fruit and nut trees, vines, and small fruits grown for resale to consumers

Apply Vykenda to field and container-grown plants produced in greenhouses and nurseries (including shade houses, lath houses and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries, forest nurseries, Christmas tree farms, and interior plantscapes.

Apply Vykenda as a broadcast spray application. Make foliar applications in sufficient water to ensure complete coverage of the target plant for best control. Repeat applications at specified intervals.

- Caution should be taken before making applications of Vykenda to small bedding plants in the seedling/plug or liner stage. A limited quantity of plants should be tested prior to full-scale application.

Plant Safety

Plant safety has been found to be acceptable for many ornamental crops; however, not all possible

plant species and varieties have been tested under all conditions. It is recommended to apply Vykenda alone and with any tank mixtures on a small portion of the crop first to ensure that a phytotoxic response will not occur.

6.1 Endangered and Threatened Species Protection Requirements

Before using this product, you must obtain any applicable Endangered Species Protection Bulletins (Bulletins) within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at https://www.epa.gov/pesticides/bulletins. When using this product, you must follow all label directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of federal law to use this product in a manner inconsistent with its labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email ESPP@epa.gov.

6.2 Foliar Applications

Breeding crops Bulb, corm, and tuber crops (such as tulips, calla lilies) Christmas trees Cut flowers Evergreens, including conifers Flowering plants Flowers grown for seed production	Foliage plants Ground covers Ornamental grasses Ornamental trees Palms	Perennial plants Pot and bedding plants (annual and perennial) Shrubs Succulent plants Trees – Evergreen (including conifer) and deciduous trees

Indoor Foliar Applications – Greenhouses

Target Insect Pest	Dilution Rate (fl oz/100 gallons)	Application Timing	Use Directions
Leafminer – *Liriomyza* spp.[1]	4.0 – 6.0	Apply preventatively or after pest has been observed. Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. Under high pest populations apply a higher rate within the labeled rate range. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Mites[1] (including *Tetranychus, Oligonychus, Polyphagotarsonemus,* and *Phyllocoptes* species)	4.0 – 8.0		

continued...

6.2 Foliar Applications *(continued)*

Target Insect Pest	Dilution Rate (fl oz/100 gallons)	Application Timing	Use Directions
Thrips[1] (including western flower thrips, citrus thrips, chili thrips, cotton bud thrips, and tobacco thrips) Japanese beetle[1] (adults) Flea beetle[1] (including red-headed flea beetle and blue flea beetle) Black vine weevil[1] (adult) Psyllids[1] (including citrus psyllid)	6.0 – 10.3	Apply preventatively or after pest has been observed. Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. Under high pest populations apply a higher rate within the labeled rate range. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Leaf feeding caterpillars[1] (including bagworm, bougainvillea looper, cabbage looper, diamondback moth, fall armyworm, beet armyworm, imported cabbageworm, and tobacco budworm) Plant bugs[1] Leafhoppers[1] (including potato leafhopper) Stink bugs[1]	8.0 – 10.3		
Spotted Lantern Fly[1]	8.0 – 10.3	Apply preventatively or after pest has been observed. Repeat treatment to maintain control using the higher listed application rates as pest pressure increases.	Mix Vykenda with the required amount of water and apply as a full-coverage spray targeted to the bark of ornamental trees. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Mealybug[1] (suppression) Scale[1] (suppression)	8.0 – 10.3	Apply preventatively or after pest has been observed. Repeat treatment to maintain suppression using the higher listed application rates as pest pressure and foliage area increases.	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.

Outdoor Foliar Applications – Nurseries, Shade houses, Lath houses			
Target Insect Pest	**Dilution Rate (fl oz/100 gallons)**	**Application Timing**	**Use Directions**
Leafminer – *Liriomyza* spp.[1] Mites[1] (including *Tetranychus, Oligonychus, Polyphagotarsonemus,* and *Phyllocoptes* species)	4.0 – 5.0	Apply preventatively or after pest has been observed. Repeat treatment every 7 days to maintain control using the higher listed application rates as pest pressure and foliage area increases	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Thrips[1] (including western flower thrips, citrus thrips chili thrips, cotton bud thrips and tobacco thrips) Japanese beetle[1] adults *Suppression* Flea beetle[1] (including red-headed flea beetle and blue flea beetle) Black vine weevil[1] adults Psyllids[1] (including citrus psyllid) Leaf feeding caterpillars[1] (including bagworm, bougainvillea looper, cabbage looper, diamondback moth, fall armyworm, beet armyworm, imported cabbageworm, and tobacco budworm) Plant bugs[1] Leafhoppers[1] (including potato leafhopper) Stink bugs[1]	5.0		

continued...

6.2 Foliar Applications *(continued)*

Outdoor Foliar Applications – Nurseries, Shade houses, Lath houses			
Target Insect Pest	**Dilution Rate (fl oz/100 gallons)**	**Application Timing**	**Use Directions**
Spotted Lantern Fly[1]	5.0	Apply preventatively or after pest has been observed. Repeat treatment every 7 days to maintain suppression.	Mix Vykenda with the required amount of water and apply as a full-coverage spray targeted to the bark of ornamental trees. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Apple maggot[1] *Suppression* Mealybug[1] *Suppression* Scale[1] *Suppression*	5.0	Apply preventatively or after pest has been observed. Repeat treatment every 7 days to maintain suppression.	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.

[1]Not Registered for Use By California.
Resistance Management:
1) Refer to **Section 3.1**.
2) Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

USE RESTRICTIONS

1) Refer to **Section 5.1** for additional product use restrictions.
2) **Maximum Single Application Rate (INDOORS): Do not** apply more than 10.3 fl oz/A (equivalent to 0.134 lb ai isocycloseram/A)
    a. **Do not** make more than 2 applications at the highest rate (10.3 fl oz/A) per crop.
    b. **Do not** make more than 6 applications at the lowest rate (4.0 fl oz/A) per crop.
3) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5.0 fl (equivalent to 0.065 lb ai isocycloseram/A)
    a. **Do not** make more than 4 applications at the highest rate (5.0 fl oz/A) per year.
    b. **Do not** make more than 6 applications at the lowest rate (4.0 fl oz/A) per year.
4) **Minimum Application Interval:** 7 days
5) **Maximum Annual Rate:**
    a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 4 applications per year when applying the highest labeled rate (5.0 fl oz/A) not to exceed the maximum annual rate of 24.6 fl oz/A/year (equivalent to 0.32 lb ai isocycloseram/A/year).
        i. Do not apply more than 0.32 lb ai/A/year of isocycloseram-containing products.
    b. Plants Grown Indoors– **Do not** make more than 2 applications per acre per crop when applying the highest listed rate (10.3 fl oz/A) or 6 applications per acre per crop when applying the lowest listed rate (4.0 fl oz/A), not to exceed the maximum annual rate of 24.6 fl oz/A/crop/year (equivalent to 0.32 lb ai isocycloseram/A/crop/year).
        i. Do not apply more than 0.32 lb ai/A/crop/year of isocycloseram-containing products.
6) Do not apply more than 24.6 fl. oz/A/year.

7.0 USE DIRECTIONS-Production of Vegetable Plants and Fruit and Nut Trees for Retail Sale to Consumers

Apply Vykenda to vegetable plants grown in seedling trays and containers. DO NOT use vegetable plants treated with Vykenda for commercial vegetable production or sell those plants for use by commercial vegetable producers.

7.1 Endangered and Threatened Species Protection Requirements

Before using this product, you must obtain any applicable Endangered Species Protection Bulletins (Bulletins) within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at https://www.epa.gov/pesticides/bulletins. When using this product, you must follow all label directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of federal law to use this product in a manner inconsistent with its labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email ESPP@epa.gov.

7.2 Brassica Head and Stem Vegetables, Crop Group 5-16

Crops (Including all cultivars, varieties, and/or hybrids of these)			
Broccoli Brussel Sprouts		Cabbage Cabbage, Chinese	Cauliflower
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Diamondback moth[1] Leafminers[1] (*Liriomyza* sp.) Cabbage looper[1] Flea beetle[1] Imported cabbageworm[1] Stink bugs[1]	4.0 13.6 ml/5,000 ft^2	Time applications to the most susceptible insect pest life-stage at locally determined action thresholds before populations reach damaging levels. For **leafminer** control, apply when adult leafminer flies are first observed.	Apply this product diluted in a minimum volume of 10 gal/A by ground. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
[1]Not Registered for Use By California. **Resistance Management:** 1) Refer to **Section 3.1**. 2) Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.			
USE RESTRICTIONS			
1) Refer to **Section 5.1** for additional product use restrictions. 2) **Maximum Single Application Rate: Do not** apply more than 4 fl oz/A (equivalent to 0.052 lb ai isocycloseram/A) 3) **Minimum Application Interval:** 7 days 4) **Maximum Annual Rate:** a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying at the labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 12.0 fl oz/A/year (equivalent to 0.16 lb ai isocycloseram/A/year). i. **Do not** apply more than 0.16 lb ai/A/year of isocycloseram-containing products. b. Plants Grown Indoors – **Do not** make more than 3 applications per acre per crop when applying the labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 12.0 fl oz/A/crop/year (equivalent to 0.16 lb ai isocycloseram/A/crop/year). i. **Do not** apply more than 0.16 lb ai/A/crop/year of isocycloseram-containing products. 5) **Pre-Harvest Interval (PHI):** 1 day			

7.3 Brassica Leafy Greens, Crop Subgroup 4-16B (except Watercress)

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Arugula	Collards	Mustard greens
Broccoli, Chinese	Cress, garden	Radish, leaves
Broccoli, raab	Cress, upland	Rape greens
Cabbage, abyssinian	Hanover salad	Rocket, wild
Cabbage, Chinese (bok choy)	Kale	Shepard's purse
Cabbage, seakale	Maca, leaves	Turnip greens
	Mizuna	

Target Pest	Rate (fl oz/A)	Application Timing	Use Directions
Diamondback moth[1] Leafminers[1] (*Liriomyza* sp.) Cabbage looper[1] Flea beetle[1] Imported cabbageworm[1] Stink bugs[1]	4.0 13.6 ml/5,000 ft^2	Time applications to the most susceptible insect pest life-stage at locally determined action thresholds before populations reach damaging levels. For **leafminer** control, apply when adult leafminer flies are first observed.	Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

[1]Not Registered for Use By California.

Resistance Management:

- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

continued...

7.3 Brassica Leafy Greens, Crop Subgroup 4-16B (except Watercress) *(continued)*

USE RESTRICTIONS
1) Refer to **Section 5.1** for additional product use restrictions. 2) **Maximum Single Application Rate: Do not** apply more than 4 fl oz/A (equivalent to 0.052 lb ai isocycloseram/A) 3) **Minimum Application Interval:** 7 days 4) **Maximum Annual Rate:** a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying at the labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 12.0 fl oz/A/year (equivalent to 0.16 lb ai isocycloseram/A/year). i. **Do not** apply more than 0.16 lb ai/A/year of isocycloseram-containing products. b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 12.0 fl oz/A/crop/year (equivalent to 0.16 lb ai isocycloseram/A/crop/year). i. **Do not** apply more than 0.16 lb ai/A/crop/year of isocycloseram-containing products. 5) **Pre-Harvest Interval (PHI):** 1 day

7.4 Bulb Vegetable Group, Crop Group 3-07

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Chive, fresh leaves	Kurrat	Onion, green
Chive, Chinese, fresh leaves	Lady's leek	Onion, macrostem
Daylily, bulb	Leek	Onion, pearl
Elegans hosta	Leek, wild	Onion, potato, bulb
Fritillaria, bulb	Lily, bulb	Onion, tree, tops
Fritillaria, leaves	Onion, Beltsville bunching	Onion, Welsh, tops
Garlic, bulb	Onion, bulb	Shallot, bulb
Garlic, great-headed, bulb	Onion, Chinese, bulb	Shallot, fresh leaves
Garlic, serpent, bulb	Onion, fresh	

Bulb Vegetables Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Leafminers[1] (*Liriomyza* sp.) Spider mites[1]	4.0 – 8.0 13.6 – 27.2ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **spider mite and leafminer** control, apply when spider mites or adult leafminer flies are first observed. For **thrips** control, begin making applications when populations are low (1-3 thrips/plant).	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Thrips[1]	6.5 – 8.0 22.2 – 27.2 ml/ 5,000 ft^2		
Bulb Vegetables Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Leafminers[1] (*Liriomyza* sp.) Spider mites	4.0 – 5.0 13.6 – 17.0ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **spider mite and leafminer** control, apply when spider mites or adult leafminer flies are first observed. For **thrips** control, begin making applications when populations are low (1-3 thrips/plant).	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Thrips[1]	5.0 17.0ml/ 5,000 ft^2		

[1]Not Registered for Use By California.

Resistance Management:

- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

continued...

7.4 Bulb Vegetable Group, Crop Group 3-07 *(continued)*

USE RESTRICTIONS
1) Refer to **Section 5.1** for additional product use restrictions. 2) **Maximum Single Application Rate (INDOORS): Do not** apply more than 8 fl oz/A (equivalent to 0.104 lb ai isocycloseram/A) 3) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5 fl oz/A (equivalent to 0.065 lb ai isocycloseram/A) 4) **Minimum Application Interval:** 7 days 5) **Maximum Annual Rate:** a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 4 applications per year when applying the highest labeled rate (5.0 fl oz/A) or 6 applications per year when applying the lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 24.6 fl oz/A/year (equivalent to 0.32 lb ai isocycloseram/A/year). i. **Do not** apply more than 0.32 lb ai/A/year of isocycloseram-containing products. b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the highest listed rate (8.0 fl oz/A) or 6 applications per acre per crop when applying the lowest listed rate (4.0 fl oz/A), not to exceed the maximum annual rate of 24.6 fl oz/A/crop/year (equivalent to 0.32 lb ai isocycloseram/A/crop/year). i. **Do not** apply more than 0.32 lb ai/A/crop/year of isocycloseram-containing products. 6) **Pre-Harvest Interval (PHI):** 7 days

7.5 Citrus Fruit, Crop Group 10-10

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Australian desert lime	Lemon	Satsuma mandarin
Australian finger lime	Lime	Sweet lime
Australian round lime	Mediterranean mandarin	Tachibana orange
Brown River finger lime	Mount White lime	Tahiti lime
Calamondin	New Guinea wild lime	Tangelo
Citron	Orange, sour	Tangerine (mandarin)
Citrus hybrids	Orange, sweet	Tangor
Grapefruit	Pummelo	Trifoliate orange
Japanese summer grapefruit	Russell River lime	Uniq fruit
Kumquat		

Citrus Fruit Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Asian citrus psyllid[1] Broad mite[1] Citrus rust mite[1] Spider mites[1] Texas citrus mite[1] Citrus leafminer[1] Citrus thrips[1]	4.0 – 6.0 13.6 – 20.4 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **Asian citrus psyllid** and **citrus leafminer** control, apply to protect flush of newly expanding foliage. For **mite** control, apply when mites are first observed. For **citrus thrips** control, apply when economic thresholds have been reached (after egg hatch has begun – preferably early to mid-hatch).	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Diaprepes root weevil[1] (adults)	4.5 – 6.0 15.4 – 20.4 ml/ 5,000 ft^2		
Citrus Fruit Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Asian citrus psyllid[1] Broad mite[1] Citrus rust mite[1] Spider mites[1] Texas citrus mite[1] Citrus leafminer[1] Citrus thrips[1]	4.0 – 5.0 13.6 – 17.0 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **Asian citrus psyllid** and **citrus leafminer** control, apply to protect flush of newly expanding foliage. For **mite** control, apply when mites are first observed. For **citrus thrips** control, apply when economic thresholds have been reached (after egg hatch has begun – preferably early to mid-hatch).	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Diaprepes root weevil[1] (adults)	5.0 17.0 ml/ 5,000 ft^2		

continued...

7.5 Citrus Fruit, Crop Group 10-10 *(continued)*

[1]Not Registered for Use By California.

Resistance Management:

- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

USE RESTRICTIONS

1) Refer to **Section 5.1** for additional product use restrictions.
2) **Do not** apply 3 days prior to flowering until the end of the flowering period. In areas where the authorities provide a declaration or definition of the flowering period, observe defined flowering periods as established by local university extension offices, County Agricultural Commissions, or other state/tribal lead agencies.
3) **Maximum Single Application Rate (INDOORS): Do not** apply more than 6 fl oz/A (equivalent to 0.078 lb ai isocycloseram/A)
4) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5 fl oz/A (equivalent to 0.065 lb ai isocycloseram/A)
5) **Minimum Application Interval:** 7 days
6) **Maximum Annual Rate:**
   a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying the highest labeled rate (5.0 fl oz/A) or 4 applications per year when applying the lowest rate (4.0 fl oz/A), not to exceed the maximum annual rate of 16.4 fl oz/A (equivalent to 0.21 lb ai isocycloseram/A/year).
      i. **Do not** apply more than 0.21 lb ai/A/year of isocycloseram-containing products.
   b. Plants Grown Indoors– **Do not** make more than 2 applications per acre per crop when applying the highest labeled rate (6.0 fl oz/A) or 4 applications per acre per crop when applying the lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 16.4 fl oz/A/crop/year (equivalent to 0.21 lb ai isocycloseram/A/crop/year).
      i. **Do not** apply more than 0.21 lb ai/A/crop/year of isocycloseram-containing products.
7) **Pre-Harvest Interval (PHI):** 1 day

7.6 Cucurbit Vegetables, Crop Group 9

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin **Gourd, edible** Chinese okra Cucuzza Hechima Hyotan ***Momordica* spp.** Balsam apple Balsam pear Bitter melon Chinese cucumber	**Muskmelon** (*Cucumis melo*) Cantaloupe Casaba Crenshaw melon Golden pershaw melon Honeydew melon Honey balls Mango melon Persian melon Pineapple melon Santa Claus melon Snake melon True cantaloupe	Pumpkin **Squash, summer** Crookneck squash Scallop squash Straightneck squash Vegetable marrow Zucchini **Squash, winter** Acorn squash Butternut squash Calabaza Hubbard squash Spaghetti squash Watermelon (*Citrullus lanatus*)

Target Pest	Rate (fl oz/A)	Application Timing	Use Directions
Leafminers[1] (*Liriomyza* sp.) Potato leafhopper[1] Spider mites[1] Leaffooted bug[1] Melonworm[1] Pickleworm[1] Squash bug[1] Thrips[1]	4.0 13.6 ml/5,000 ft^2[2]	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **spider mite and leafminer** control, apply when spider mites or adult leafminer flies are first observed. For **thrips** control, begin making applications when populations are low.	Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

continued...

7.6 Cucurbit Vegetables, Crop Group 9 *(continued)*

[1]Not Registered for Use By California.

Resistance Management:

- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

USE RESTRICTIONS

1) Refer to **Section 5.1** for additional product use restrictions.
2) Foliar application of this product is prohibited from onset of flowering until flowering is complete unless; (i) the application is being made between 2 hours prior to sunset and 2 hours after the following sunrise OR, (ii) the application is being made at a time when the temperature at the application site is 50°F or less.
3) **Maximum Single Application Rate: Do not** apply more than 4 fl oz/A (equivalent to 0.052 lb ai isocycloseram/A)
4) **Minimum Application Interval:** 7 days
5) **Maximum Annual Rate:**
   a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying the labeled rate of 4.0 fl oz/A, not to exceed the maximum annual rate of 12.0 fl oz/A/year (equivalent to 0.16 lb ai isocycloseram/A/year).
      i. **Do not** apply more than 0.16 lb ai/A/year of isocycloseram-containing products.
   b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the labeled rate of 4.0 fl oz/A, not to exceed the maximum annual rate of 12.0 fl oz/A/crop/year (equivalent to 0.16 lb ai isocycloseram/A/crop/year).
      i. **Do not** apply more than 0.16 lb ai/A/crop/year of isocycloseram-containing products.
6) **Pre-Harvest Interval (PHI):** 3 days

7.7 Fruiting Vegetables, Crop Group 8-10

Crops (Including all cultivars, varieties, and/or hybrids of these)		
African eggplant	Goji berry	Nonbell pepper
Bush tomato	Groundcherry	Roselle
Bell pepper	Martynia	Scarlet eggplant
Cocona	Naranjilla	Sunberry
Currant tomato	Okra	Tomatillo
Eggplant	Pea eggplant	Tomato
Garden huckleberry	Pepino	Tree tomato

Fruiting Vegetables Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Broad mite[1] Colorado potato beetle[1] Leafminers[1] (*Liriomyza* sp.) Potato leafhopper[1] Spider mites[1] Flea beetle[1] Pepper Weevil[1] Thrips[1]	4.0 – 8.0 13.6 – 27.2 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **mite** and **leafminer** control, apply when mites or adult leafminer flies are first observed. For **pepper weevil** control, begin making applications when populations are low. Apply foliarly soon after emergence or transplant to control **thrips** which may vector the **tomato spotted wilt virus**. This will help to suppress and slow the expression of the virus in fruiting vegetables.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Armyworms[1] Cabbage looper[1] Tomato fruitworm[1]	5.5 – 8.0 18.7 – 27.2 ml/ 5,000 ft^2		
Fruiting Vegetables Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Broad mite[1] Spider mites[1] Leafminers[1] (*Liriomyza* sp.) Colorado potato beetle[1] Potato leafhopper[1] Flea beetle[1] Pepper Weevil[1] Thrips[1]	4.0 – 5.0 13.6 – 17.0 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **mite** and **leafminer** control, apply when mites or adult leafminer flies are first observed. For **pepper weevil** control, begin making applications when populations are low. Apply foliarly soon after emergence or transplant to control **thrips** which may vector the **tomato spotted wilt virus**. This will help to suppress and slow the expression of the virus in fruiting vegetables.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

continued...

7.7 Fruiting Vegetables, Crop Group 8-10 *(continued)*

Fruiting Vegetables Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Armyworms[1] (*Suppression*) Cabbage looper[1] (*Suppression*) Tomato fruitworm[1] (*Suppression*)	5.0 17.0 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **mite** and **leafminer** control, apply when mites or adult leafminer flies are first observed. For **pepper weevil** control, begin making applications when populations are low. Apply foliarly soon after emergence or transplant to control **thrips** which may vector the **tomato spotted wilt virus**. This will help to suppress and slow the expression of the virus in fruiting vegetables.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

[1]Not Registered for Use By California.

Resistance Management:

- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

USE RESTRICTIONS

1) Refer to **Section 5.1** for additional product use restrictions.
2) Foliar application of this product is prohibited from onset of flowering until flowering is complete unless; (i) the application is being made between 2 hours prior to sunset and 2 hours after the following sunrise OR, (ii) the application is being made at a time when the temperature at the application site is 50°F or less.
3) **Maximum Single Application Rate (INDOORS): Do not** apply more than 8 fl oz/A (equivalent to 0.104 lb ai isocycloseram/A)
4) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5 fl oz/A (equivalent to 0.065 lb ai isocycloseram/A)
5) **Minimum Application Interval:** 7 days
6) **Maximum Annual Rate:**
   a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 4 applications per year when applying the highest labeled rate of 5.0 fl oz/A or 6 applications per year when applying the lowest listed rate of 4.0 fl oz/A, not to exceed the maximum annual rate of 24.6 fl oz/A/year (equivalent to 0.32 lb ai isocycloseram/A/year).
      i. **Do not** apply more than 0.32 lb ai/A/year of isocycloseram-containing products.
   b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the highest labeled rate of 8.0 fl oz/A or 6 applications per acre per crop when applying the lowest labeled rate of 4.0 fl oz/A, not to exceed the maximum annual rate of 24.6 fl oz/A/crop/year (equivalent to 0.32 lb ai isocycloseram/A/crop/year).
      i. **Do not** apply more than 0.32 lb ai/A/crop/year of isocycloseram-containing products.
7) **Pre-Harvest Interval (PHI):** 1 day

7.8 Leafy Greens, Crop Subgroup 4-16A

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Amaranth, Chinese	Dang-gwi, leaves	Lettuce, leaf
Amaranth, leafy	Dillweed	Orach
Aster, Indian	Dock	Parsley, fresh leaves
Blackjack	Dol-nam-mul	Plantain, buckhorn
Cat's whiskers	Ebolo	Primrose, English
Cham-chwi	Endive	Purslane, garden
Cham-na-mul	Escarole	Purslane, winter
Chervil, fresh leaves	Fameflower	Radicchio
Chipilin	Feather cockscomb	Spinach
Chrysanthemum, garland	Good King Henry	Spinach, Malabar
Cilantro, fresh leaves	Huauzontle	Spinach, New Zealand
Corn salad	Jute, leaves	Spinach, tanier
Cosmos	Lettuce, bitter	Swiss chard
Dandelion, leaves	Lettuce, head	Violet, Chinese, leaves

Target Pest	Rate (fl oz/A)	Application Timing	Use Directions
Diamondback moth[1] Leafminers[1] (*Liriomyza* sp.) Potato leafhopper[1] Spider mites[1]	4.0 13.6 ml/5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **spider mite** and **leafminer** control, apply when spider mites or adult leafminer flies are first observed. For **thrips** control, begin making applications when populations are low.	Apply this product diluted in a minimum volume of 10 gal/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Cabbage looper[1] Flea beetle[1] Imported cabbageworm[1]			
Thrips[1]			

[1]Not Registered for Use By California.
Resistance Management:
- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

continued...

7.8 Leafy Greens, Crop Subgroup 4-16A *(continued)*

USE RESTRICTIONS
1) Refer to **Section 5.1** for additional product use restrictions. 2) **Maximum Single Application Rate: Do not** apply more than 4 fl oz/A (equivalent to 0.052 lb ai isocycloseram/A) 3) **Minimum Application Interval:** 7 days 4) **Maximum Annual Rate:** a. Plants Grown Outdoor and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying the labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 12.0 fl oz/A (equivalent to 0.16 lb ai isocycloseram/A/year). i. **Do not** apply more than 0.16 lb ai/A/year of isocycloseram-containing products. b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the listed rate (4.0 fl oz/A), not to exceed the maximum annual rate of 12.0 fl oz/A/crop/year (equivalent to 0.16 lb ai isocycloseram/A/crop/year). i. **Do not** apply more than 0.16 lb ai/A/crop/year of isocycloseram-containing products. 5) **Pre-Harvest Interval (PHI):** 1 day

7.9 Pome Fruit, Crop Group 11-10

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Apple	Mayhaw	Quince
Azarole	Medlar	Quince, Chinese
Crabapple	Pear	Quince, Japanese
Loquat	Pear, Asian	Tejocote

Pome Fruit Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
European red mite[1] Twospotted spider mite[1]	4.0 – 6.0 13.6 – 20.4 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. Use local pheromone trap catches and degree day models to help time applications for **codling moth** and **Oriental fruit moth**. For **thrips** control, begin making applications when populations are low. For **apple maggot** suppression, begin making applications when pest populations are at or below threshold.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Codling moth[1] Obliquebanded leafroller[1] Oriental fruit moth[1] Plum curculio[1] Red banded leafroller[1] Thrips[1]			

Pome Fruit Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Pear psylla[1] Apple maggot[1] *(Suppression)*	4.5 – 6.0 15.4 – 20.4 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. Use local pheromone trap catches and degree day models to help time applications for **codling moth** and **Oriental fruit moth**. For **thrips** control, begin making applications when populations are low. For **apple maggot** suppression, begin making applications when pest populations are at or below threshold.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Pome Fruit Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
European red mite[1] Twospotted spider mite[1]	4.0 – 5.0 13.6 – 17.0 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. Use local pheromone trap catches and degree day models to help time applications for **codling moth** and **Oriental fruit moth**. For **thrips** control, begin making applications when populations are low. For **apple maggot** suppression, begin making applications when pest populations are at or below threshold.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Codling moth[1] Obliquebanded leafroller[1] Oriental fruit moth[1] Plum curculio[1] Red banded leafroller[1] Thrips[1]			
Pear psylla[1] Apple maggot[1] *(Suppression)*	5.0 17.0 ml/ 5,000 ft2		

[1]Not Registered for Use By California.
Resistance Management:
- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

continued...

7.9 Pome Fruit, Crop Group 11-10 *(continued)*

USE RESTRICTIONS
1) Refer to **Section 5.1** for additional product use restrictions. 2) **Do not** apply 3 days prior to flowering until the end of the flowering period. 3) **Maximum Single Application Rate (INDOORS): Do not** apply more than 6 fl oz/A (equivalent to 0.078 lb ai isocycloseram/A) 4) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5 fl oz/A (equivalent to 0.065 lb ai isocycloseram/A) 5) **Minimum Application Interval:** 7 days 6) **Maximum Annual Rate:** a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying the highest labeled rate (5.0 fl oz/A) or 4 applications per year when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 18.0 fl oz/A (equivalent to 0.24 lb ai isocycloseram/A/year). i. **Do not** apply more than 0.24 lb ai/A/year of isocycloseram-containing products. b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the highest labeled rate (6.0 fl oz/A) or 4 applications per acre per crop when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 18.0 fl oz/A/crop/year (equivalent to 0.24 lb ai isocycloseram/A/crop/year). i. **Do not** apply more than 0.24 lb ai/A/crop/year of isocycloseram-containing products. 7) **Pre-Harvest Interval (PHI):** 14 days

7.10 Stone Fruit, Crop Group 12-12

Crops (Including all cultivars, varieties, and/or hybrids of these)		
Apricot	Nectarine	Plum, Chickasaw
Apricot, Japanese	Peach	Plum, Damson
Capulin	Plum	Plum, Japanese
Cherry, black	Plum, American	Plum, Klamath
Cherry, Nanking	Plum, beach	Plum, prune (fresh)
Cherry, sweet	Plum, Canada	Plumcot
Cherry, tart	Plum, cherry	Sloe
Jujube, Chinese		

Stone Fruit Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Spider mites[1] Spotted wing drosophila[1] Codling moth[1] Obliquebanded leafroller[1] Oriental fruit moth[1] Plant bugs[1] Plum curculio[1] Stink bugs[1] Thrips[1]	4.0 – 6.0 13.6 – 20.4 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **spider mite** control, apply when spider mites are first observed. For **thrips** control, begin making applications when populations are low.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Stone Fruit Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Spider mites[1] Spotted wing drosophila[1] Codling moth[1] Obliquebanded leafroller[1] Oriental fruit moth[1] Plant bugs[1] Plum curculio[1] Stink bugs[1] Thrips[1]	4.0 – 5.0 13.6 – 17.0 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **spider mite** control, apply when spider mites are first observed. For **thrips** control, begin making applications when populations are low.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

continued...

7.10 Stone Fruit, Crop Group 12-12 *(continued)*

[1]Not Registered for Use By California.
Resistance Management:
- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

USE RESTRICTIONS

1) Refer to **Section 5.1** for additional product use restrictions.
2) **Do not** apply 3 days prior to flowering until the end of the flowering period.
3) **Maximum Single Application Rate (INDOORS): Do not** apply more than 6 fl oz/A (equivalent to 0.078 lb ai isocycloseram/A)
4) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5 fl oz/A (equivalent to 0.065 lb ai isocycloseram/A)
5) **Minimum Application Interval:** 7 days
6) **Maximum Annual Rate:**
   a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying the highest labeled rate (5.0 fl oz/A) or 4 applications per year when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 18.0 fl oz/A (equivalent to 0.24 lb ai isocycloseram/A/year).
      i. **Do not** apply more than 0.24 lb ai/A/year of isocycloseram-containing products.
   b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the highest labeled rate (6.0 fl oz/A) or 4 applications per acre per crop when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 18.0 fl oz/A/crop/year (equivalent to 0.24 lb ai isocycloseram/A/crop/year).
      i. **Do not** apply more than 0.24 lb ai/A/crop/year of isocycloseram-containing products.
7) **Pre-Harvest Interval (PHI):** 14 days

7.11 Tree Nuts

Crops (Including all cultivars, varieties, and/or hybrids of these)		
African nut-tree	Coconut	Okari nut
Almond	Coquito nut	Pachira nut
Beech nut	Dika nut	Peach palm nut
Brazil nut	Ginkgo	Pecan
Brazilian pine	Guiana chestnut	Pequi
Bunya	Hazelnut (filbert)	Pili nut
Bur oak	Heartnut	Pine nut
Butternut	Hickory nut	Pistachio
Cajou nut	Japanese horse-chestnut	Sapucaia nut
Candlenut	Macadamia nut	Tropical almond
Cashew	Mongongo nut	Walnut, black
Chestnut	Monkey-pot	Walnut, English
Chinquapin	Monkey puzzle nut	Yellowhorn

Tree Nuts Grown INDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Scorch mite[1] Spider[1] Leaffooted bug[1]	4.0 – 6.0 13.6 – 20.4 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **mite** control, apply when mites are first observed.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Codling moth[1] Hickory shuckworm[1] Oriental fruit moth[1] Pecan nutcasebearer[1] Navel orangeworm[1] (*Suppression*) Peach twig borer[1] (*Suppression*)	5.0 – 6.0 17.0 – 20.4 ml/ 5,000 ft^2		
Tree Nuts Grown OUTDOORS			
Target Pest	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Scorch mite[1] Spider[1] Leaffooted bug[1]	4.0 – 5.0 13.6 – 17.0 ml/ 5,000 ft^2	Time applications to the most susceptible insect or mite pest life-stage at locally determined action thresholds before populations reach damaging levels. For **mite** control, apply when mites are first observed.	Under high pest populations apply a higher rate within the labeled rate range. Apply this product diluted in a minimum volume of 30 gal/A. Thorough coverage is essential to obtain best results. Select a spray volume appropriate for the size of trees and density of foliage. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
Codling moth[1] Hickory shuckworm[1] Oriental fruit moth[1] Pecan nutcasebearer[1] Navel orangeworm[1] (*Suppression*) Peach twig borer[1] (*Suppression*)	5.0 17.0 ml/5,000 ft^2		

continued...

7.11 Tree Nuts *(continued)*

[1]Not Registered for Use By California.
Resistance Management:
- Refer to **Section 3.1**.
- Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.

USE RESTRICTIONS

1) Refer to **Section 5.1** for additional product use restrictions.
2) **Do not** apply 3 days prior to flowering until the end of the flowering period.
3) **Maximum Single Application Rate (INDOORS): Do not** apply more than 6 fl oz/A (equivalent to 0.078 lb ai isocycloseram/A)
4) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5 fl oz/A (equivalent to 0.065 lb ai isocycloseram/A)
5) **Minimum Application Interval:** 7 days
6) **Maximum Annual Rate:**
   a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 3 applications per year when applying the highest labeled rate (5.0 fl oz/A) or 4 applications per year when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 18.0 fl oz/A (equivalent to 0.24 lb ai isocycloseram/A/year).
      i. **Do not** apply more than 0.24 lb ai/A/year of isocycloseram-containing products.
   b. Plants Grown Indoors– **Do not** make more than 3 applications per acre per crop when applying the highest labeled rate (6.0 fl oz/A) or 4 applications per acre per crop when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 18.0 fl oz/A/crop/year (equivalent to 0.24 lb ai isocycloseram/A/crop/year).
      i. **Do not** apply more than 0.24 lb ai/A/crop/year of isocycloseram-containing products.
7) **Pre-Harvest Interval (PHI):** 14 days

8.0 USE DIRECTIONS-Production of Juvenile Berry, Fruits and Vines for Retail Sale[1]

8.1 Endangered and Threatened Species Protection Requirements

Before using this product, you must obtain any applicable Endangered Species Protection Bulletins (Bulletins) within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at https://www.epa.gov/pesticides/bulletins. When using this product, you must follow all label directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of federal law to use this product in a manner inconsistent with its labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email ESPP@epa.gov.

8.2 Foliar Applications

Berry and Small Fruit Crop Group: Crop Group 13-07 – Including, but not limited to:[2]
Common blackberry; blueberry, highbush; currant, black; currant, red; gooseberry; grape; huckleberry; kiwifruit, fuzzy; native currant; raspberry, black and red; strawberry; cultivars, varieties, and hybrids of these commodities.

Tropical and Subtropical Fruit, Edible Peel Group: Crop Group 23 – Including, but not limited to:[2]
Acai; breadnut; cambuca; cashew apple; feijoa; fig; gooseberry, Abyssinian; gooseberry, Ceylon; gooseberry, Indian; guava, cattley; guava, strawberry; olive; papaya, mountain; persimmon, black; persimmon, Japanese; Surinam cherry; tamarind; cultivars, varieties, and hybrids of these commodities.

Tropical and Subtropical Fruit, Inedible Peel Group: Crop Group 24 – Including, but not limited to:[2]
Atemoya; avocado; banana; custard apple; dragon fruit; longan; lychee; mango; monkey-bread-tree; papaya; passionflower, persimmon, American; pineapple; plantain; pomegranate; cultivars, varieties, and hybrids of these commodities.

Production INDOORS			
Target Insect Pest	**Dilution Rate (fl oz/100 gallons)**	**Application Timing**	**Use Directions**
Mites[3]	4.0 – 8.0	Apply preventatively or after the pest has been observed. Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. Under high pest populations apply a higher rate within the labeled rate range. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Leafminer[3]	4.0 – 6.0		
Thrips[3]	4.0 – 8.0		
Japanese beetle[3] (adults) Flea Beetle[3]	6.0 – 10.3		
Leaf feeding caterpillars[3]	8.0 – 10.3		

...continued

8.2 Foliar Applications *(continued)*

Production OUTDOORS			
Target Insect Pest	**Dilution Rate (fl oz/100 gallons)**	**Application Timing**	**Use Directions**
Mites[3] Leafminer[3] Thrips[3]	4.0 – 5.0	Apply preventatively or after the pest has been observed. Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Mix Vykenda with the required amount of water and apply as a full-coverage foliar spray. Under high pest populations apply a higher rate within the labeled rate range. When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
Japanese beetle[3] (adults) (*Suppression*) Flea Beetle[3] Leaf feeding caterpillars[3]	5.0		

[1]Vykenda may be applied to listed juvenile (or non-bearing) fruit, nut, vine, brambles, and bushberry plants in commercial greenhouse and nursery production. Immature or inedible fruit and nuts may be present on the plant at the time of application but are not intended for immediate harvest and/or consumption.
[2]A complete list of crops for Groups 13-07, 23 and 24 can be found in Appendix 11.0.
[3]Not Registered for Use By California.

USE RESTRICTIONS
Resistance Management: • Refer to **Section 3.1.** • Do not make more than two sequential applications of Vykenda or any other foliar applied isocycloseram-containing product.
1) Refer to **Section 5.1** for additional product use restrictions. 2) **Do not** apply 3 days prior to flowering until the end of the flowering period. 3) **Maximum Single Application Rate (INDOORS): Do not** apply more than 10.3 fl oz/A (equivalent to 0.134 lb ai isocycloseram/A) 4) **Maximum Single Application Rate (OUTDOORS): Do not** apply more than 5.0 fl oz/A (equivalent to 0065 lb ai isocycloseram/A) 5) **Minimum Application Interval:** 7 days 6) **Maximum Annual Rate:** a. Plants Grown Outdoors and Outdoor Containerized Production – **Do not** make more than 4 applications per year when applying the highest labeled rate (5.0 fl oz/A) or 6 applications per year when applying lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 24.6 fl oz/A (equivalent to 0.32 lb ai isocycloseram/A/year). i. **Do not** apply more than 0.32 lb ai/A/year of isocycloseram-containing products. b. Plants Grown Indoors– **Do not** make more than 2 applications per acre per crop when applying the highest labeled rate (10.3 fl oz/A) or 6 applications per acre per crop when applying the lowest labeled rate (4.0 fl oz/A), not to exceed the maximum annual rate of 24.6 fl oz/A/crop/year (equivalent to 0.32 lb ai isocycloseram/A/crop/year). i. **Do not** apply more than 0.32 lb ai/A/crop/year of isocycloseram-containing products.

9.0 STORAGE AND DISPOSAL

Storage and Disposal

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

Pesticide Storage

Keep container closed when not in use. Store in the original container. Store in a cool, dry and well-ventilated place. Protect from extreme heat. Do not store near food or feed.

Pesticide Disposal

Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

...continued

9.0 STORAGE AND DISPOSAL *(continued)*

Container Handling – (less than or equal to 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling – (greater than 5 gallons)

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

Container Handling – (greater than 5 gallons)

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 refilling. To clean 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by procedures approved by state and local authorities.

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

10.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

11.0 APPENDIX – Complete Crop Group Listings

Complete Crop Group Listings
Berry and Small Fruit Crop Group: Crop Group 13-07 Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Orgeon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); blueberry, highbush; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokecherry; cloudberry; cranberry; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; grape; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; strawberry; wild raspberry; cultivars, varieties, and/or hybrids of these commodities

...continued

11.0 APPENDIX – Complete Crop Group Listings *(continued)*

Complete Crop Group Listings
Tropical and Subtropical Fruit, Edible Peel Group: New Crop Group 23: Acai; acerola; achachairu; African plum; agritos; almondette; ambarella; apak palm; appleberry; araza; arbutus berry; babaco; bacaba palm; bacaba-de-leque; bayberry, red; bignay; bilimbi; borojo; breadnut; cabeluda; cajou, fruit; cambuca; carandas-plum; carob; cashew apple; Ceylon iron wood; Ceylon olive; cherry-of-the-Rio-Grande; Chinese olive, black; Chinese olive, white; chirauli-nut; ciruela verde; cocoplum; date; Davidson's plum; desert-date; doum palm coconut; false sandalwood; feijoa; fig; fragrant manjack; gooseberry, Abyssinian; gooseberry, Ceylon; gooseberry, Indian; gooseberry, otaheite; governor's plum; grumichama; guabiroba; guava; guava berry; guava, Brazilian; guava, cattley; guava, Costa Rican; guava, para; guava, purple strawberry; guava, strawberry; guava, yellow strawberry; guayabillo; illawarra plum; imbe; imbu; Indian-plum; jaboticaba; Jamaica-cherry; jambolan; jelly palm; jujube, Indian; kaffir-plum; kakadu plum; kapundung; karanda; kwai muk; lemon aspen; mangaba; Marian plum; mombin, Malayan; mombin, purple; mombin, yellow; monkeyfruit; monos plum; mountain cherry; nance; natal plum; noni; olive; papaya, mountain; pataua; peach palm, fruit; persimmon, black; persimmon, Japanese; pitomba; plum-of-Martinique; pomerac; rambai; rose apple; rukam; rumberry; sea grape; sentul; sete-capotes; silver aspen; starfruit; Surinam cherry; tamarind; uvalha; water apple; water pear; water berry; wax jambu; cultivars, varieties, and hybrids of these commodities
Tropical and Subtropical Fruit, Inedible Peel Group: New Crop Group 24: Abiu; aisen; akee apple; atemoya; avocado; avocado, Guatemalan; avocado, Mexican; avocado, West Indian; bacury; bael fruit; banana; banana, dwarf; binjai; biriba; breadfruit; Burmese grape; canistel; cat's-eyes; champedak; cherimoya; cupuacu; custard apple; dragon fruit; durian; elephant-apple; etambe; granadilla; granadilla, giant; ilama; inga; jackfruit; jatoba; karuka; kei apple; langsat; lanjut; longan; lucuma; lychee; mabolo; madras-thorn; mammy-apple; manduro; mango; mango, horse; mango, Saipan; mangosteen; marang; marmaladebox; matisia; mesquite; mongongo, fruit; monkey-bread-tree; monstera; nicobar-breadfruit; paho; pandanus; papaya; passionflower, winged-stem; passionfruit; passionfruit, banana; passionfruit, purple; passionfruit, yellow; pawpaw, common; pawpaw, small-flower; pelipisan; pequi; pequia; persimmon, American; pineapple; pitahaya; pitaya; pitaya, amarillo; pitaya, roja; pitaya, yellow; plantain; pomegranate; poshte; prickly pear, fruit; prickly pear, Texas, fruit; pulasan; quandong; rambutan; saguaro; sapodilla; sapote, black; sapote, green; sapote, mamey; sapote, white; sataw; satinleaf; screw-pine; Sierra Leone-tamarind; soncoya; soursop; Spanish lime; star apple; sugar apple; sun sapote; tamarind-of-the-Indies; velvet tamarind; wampi; white star apple; wild loquat; cultivars, varieties, and hybrids of these commodities

Vykenda®, PLINAZOLIN®, the ALLIANCE FRAME
the SYNGENTA Logo and the PURPOSE ICON
are Trademarks of a Syngenta Group Company.

AutoFog™ is a trademark of Dramm Corporation.

©2025 Syngenta

For non-emergency (e.g., current product information),
call Syngenta Crop Protection at
1-866-796-4368.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1703B-L1 1125
4242872

(01) 0 07 02941 01390 2

ISOCYCLOSERAM | GROUP 30 | INSECTICIDE

Vykenda®

syngenta.

Insecticide/Miticide

PLINAZOLIN® technology*

For control of listed insect pests of:
- Ornamental plants; ornamental bulb, corm, and tuber crops; evergreen (including conifer) and deciduous trees, and Christmas trees
- Vegetable plants, fruit and nut trees, vines, and small fruits grown for resale to consumers

For application to field and container grown plants produced in greenhouses and nurseries (including shade houses, lath houses and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries, forest nurseries, Christmas tree farms.

1 quart
Net Contents

Active Ingredient:	
Isocycloseram**	18.3%
Other Ingredients:	81.7%
Total:	100.0%

**PLINAZOLIN® technology denotes the Syngenta trademark for the active ingredient isocycloseram*
**CAS No. 2061933-85-3

Vykenda® is formulated as a suspension concentrate and contains 1.67 lb of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

See additional Precautionary Statements and Directions for Use inside booklet.

EPA Reg. No. 100-1703 EPA Est. 072344-MO-004

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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). Refer to supplemental labeling under "Non-Agricultural Use Requirements" in the Directions for Use section for information about this standard.

FIRST AID: Have the product container or label with you when calling a poison control center or doctor or going for treatment. **SYNGENTA HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-888-8372**.

PRECAUTIONARY STATEMENTS

Environmental Hazards: For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

Surface Water Advisory: This product may impact surface-water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several months or more 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 isocycloseram from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is expected to occur within 48 hours after application. When irrigation is required within 48 hours after application, avoid irrigating to the point of runoff. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

Physical or Chemical Hazards: Do not mix or allow to come into contact with oxidizing agents. Hazardous chemical reaction may occur.

Storage and Disposal

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

Pesticide Storage: Keep container closed when not in use. Store in the original container. Store in a cool, dry and well-ventilated place. Protect from extreme heat. Do not store near food or feed.

Pesticide Disposal: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling – (less than or equal to 5 gallons): Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

Vykenda®, the SYNGENTA Logo, and the PURPOSE ICON are Trademarks of a Syngenta Group Company.
©2025 Syngenta

For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-866-796-4368.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1703B-L1 1125
4242872

syngenta®