



# SIVANTO<sup>TM</sup>

## prime

Net Contents:

**1 Gallon**

**For use in pest management and suppression of listed insects which vector diseases.**

**ACTIVE INGREDIENT:** Flupyradifurone\* . . . . . **17.09%**

**OTHER INGREDIENTS:** . . . . . **82.91%**

Contains 1.67 pounds active **TOTAL: 100.00%**  
ingredient per U.S. gallon (200 grams AI/liter)

\*CAS No. 951659-40-8

**EPA Reg. No. 264-1141**

**FLUPYRADIFURONE GROUP 4D INSECTICIDE**

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

For **MEDICAL** and **TRANSPORTATION** Emergencies  
**ONLY** Call 24 Hours a Day 1-800-334-7577  
For **PRODUCT USE** Information Call 1-866-99BAYER  
(1-866-992-2937)

**Please refer to booklet for additional precautionary  
statements and directions for use.**

Produced for:

Bayer CropScience LP

P.O. Box 12014, 2 T.W. Alexander Drive  
Research Triangle Park, North Carolina 27709

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## FIRST AID

<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>

**In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.**

Note to Physician: No specific antidote. Treat the patient symptomatically.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMAN AND DOMESTIC ANIMALS

#### CAUTION

- Harmful if swallowed.
- Harmful if absorbed through skin.
- Causes moderate eye irritation.
- Avoid contact with eyes, skin, and clothing.
- Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

### **Applicators and other handlers must wear:**

- Long sleeved shirt and long pants
- Chemical resistant gloves made out of: barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride  $\geq$  14 mils, or viton  $\geq$  14 mils
- Shoes and socks

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

<b>USER SAFETY RECOMMENDATIONS</b>
<ul style="list-style-type: none"><li>• Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li><li>• Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li><li>• Users should remove PPE immediately after handling this product.</li></ul>



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## **ENVIRONMENTAL HAZARDS**

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### **Terrestrial Use**

Do not apply directly to water, or to areas where surface water is present or to intertidal

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areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

### **Non-Target Organisms**

This pesticide is toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Toxic to adult bees in laboratory studies via oral exposure, however, not toxic to bees through contact exposure, and field studies conducted with this product have shown no effects on honeybee colony development.

### **Ground Water Advisory**

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

### **Surface Water Label Advisories**

Flupyradifurone and its degradate difluoroacetic acid may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. Flupyradifurone and its degradate difluoroacetic acid are classified as having medium and high potential, respectively, for reaching surface water via run-off 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 flupyradifurone and its degradate difluoroacetic acid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

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## **CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY**

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Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

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## **DIRECTIONS FOR USE**

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**It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Read the entire label before using this product.**

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.

**Not for sale, distribution or use in Nassau and Suffolk Counties New York except as permitted under FIFRA Section 24(c), Special Local Need Registration.**

**No aerial application in New York State.**

#### **POLLINATOR BEST MANAGEMENT PRACTICE**

In order to minimize exposure to pollinators, it is recommended that foliar insecticides are applied late in the afternoon, evening, or at night outside of daily peak foraging periods.

### **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, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, 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 4 hours**, with the exception of California and New York. In the state of California the REI is 12 hours. In the state of New York the REI is 4 hours for all listed crops except for grapes for which the REI is 12 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area without restrictions if there will be no contact with anything that has been treated.

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## **AGRICULTURAL USE REQUIREMENTS *(continued)***

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

- Coveralls
- Chemical resistant gloves
- Chemical resistant footwear plus socks

## **PRODUCT INFORMATION**

SIVANTO™ prime:

- is a broad-spectrum insecticide, formulated in a 1.67 lb AI/gallon (200 grams AI/liter) SL (soluble liquid);
- belongs to a new class of chemicals known as the Butenolides;
- is acropetally systemic, moving from roots to the leaves in the case of soil applications;
- is translaminar through the leaf tissue and acropetally systemic, moving from points of contact to leaf tips in the case of foliar applications;
- can provide control of labeled pests on the underside of leaves; and
- is readily absorbed into leaf tissue and is considered “rainfast” within 1 hour after spray dries.

## **APPLICATION INSTRUCTIONS**

SIVANTO prime may be:

- applied as a foliar application using properly calibrated ground sprayers, fixed or rotary winged aircraft, or through properly designed, sprinkler-type overhead chemigation equipment (See Chemigation – Directions for Use section); or
- applied as a soil application using low-pressure drip, trickle or micro-sprinkler chemigation, soil shank injection or plant drench.

## **USE RESTRICTIONS**

- Do not tank mix with azole fungicides (FRAC group 3) during bloom period.
- Refer to the specific use directions and restrictions in each Crop, Crop Group or Crop Subgroup table.
- Not for use on greenhouse or planthouse crops except where permitted in crop use specific directions or allowed by state specific 24(c) labeling.
- Not for use on crops intended to be grown for seed unless specified otherwise in the crop specific sections of this label or allowed by state specific 24(c) labeling.
- No aerial application in New York State.

## **INSECTICIDE RESISTANCE MANAGEMENT (IRAC) RECOMMENDATIONS**

For resistance management, SIVANTO prime contains a subgroup 4D insecticide. Any insect population may contain individuals naturally resistant to SIVANTO prime and other Group 4 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of SIVANTO prime or other Group 4 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Tank mix with insecticides from a different group 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 selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action group 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).

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- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, 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 or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors 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 Bayer CropScience at 1-866-99BAYER (1-866-992-2937).

## **CHEMIGATION**

### **Types of Irrigation Systems**

SIVANTO prime may be applied by chemigation:

- for foliar applications, through overhead sprinkler-type irrigation systems, including center pivot, lateral move, side roll, or overhead solid-set systems or equivalent equipment; and
- for soil applications, through low-pressure drip, trickle or micro-sprinkler systems or equivalent equipment.

### **Uniform Water Distribution and System Calibration**

The chemigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The chemigation system must be calibrated to uniformly apply the rates specified in crop-specific label sections. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

## **Chemigation Monitoring**

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.

## **Required System Safety Devices**

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

## **Using Water From Public Water Systems**

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.

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. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged

into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump. 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. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump 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.

### **Injection For Chemigation**

Inject the specified dosage of SIVANTO prime into the irrigation main water stream: (1) through a constant flow, metering device; (2) into the center of the main line flow via a pitot tube or equivalent; (3) at a point ahead of at least one, right-angle turn in the main stream flow such that thorough mixing with the irrigation water is ensured.

### **Center-Pivot and Automatic-Move Linear Systems**

Inject the specified dosage per acre continuously for one complete revolution (center pivot) or move of the system. The system should be run at maximum speed. It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps, and system safety devices be plugged to prevent chemical contamination of these areas. The use of END GUNS is NOT RECOMMENDED. End guns that provide uneven distribution of treated water can result in lack of effectiveness or illegal pesticide residues in or on the crop.

### **Solid Set and Manually Controlled Linear Systems**

For foliar application, injection should be applied at the end of the irrigation cycle and followed by sufficient water to flush the product out of the irrigation system.

## **Flushing and Cleaning the Chemical Injection System**

At the end of the application period, allow time for all lines to flush the pesticide through all nozzles or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

In order to apply pesticides accurately, the chemical injection system must be kept clean, free of chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

## **SPRAY DRIFT MANAGEMENT**

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Consult the local Cooperative Extension for additional information. Avoiding spray drift is the responsibility of the applicator.

### **Droplet Size**

Use nozzles and pressure that generate droplet sizes which provide sufficient control and coverage. Higher flow nozzles and lower pressures will produce larger droplets and minimize drift. Use larger droplet size when applying in hot, dry conditions (droplet evaporation is higher under these conditions, thus reducing the effective droplet size and increasing drift potential). Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain crop coverage. Applications with very coarse, extremely coarse, or ultra-coarse droplets will not provide adequate coverage.

### **Wind Speed**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. Applications during gusty or calm wind conditions should be avoided. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. For applications made in-furrow or below soil-level, wind speed restrictions are not applicable.

## **Temperature Inversions**

Drift potential is high during temperature inversions and applications should be avoided under these conditions. Temperature inversions are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. If fog is not present, inversions can also be identified by the movement of smoke or dust from a ground source -- smoke or dust that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion.

## **Sensitive Areas**

When applying adjacent to residential areas, water bodies, habitats known to have threatened or endangered species, or non-target crops, drift can be minimized to these areas by making application when the wind direction is away from these areas.

Where states or local authorities have more stringent regulations, they should be observed.

## **Aerial Applications**

- Mount the spray boom on the aircraft so as to minimize drift caused by wing tip vortices.
- The minimum practical boom length should be used, and should not exceed 75% of the wing span or rotor diameter.
- Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety.
- No aerial application in New York State.

## **COMPATIBILITY TESTING AND TANK MIX PARTNERS**

- If SIVANTO prime is to be tank mixed with other pesticides, compatibility should be tested prior to mixing.
- 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.

## Compatibility

SIVANTO prime is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. However, it is known that many components, including crop protection products, fertilizers, micronutrients, and spray adjuvants, may be present in a tank mix combination. There is potential for adverse chemical reactions. It is impossible to determine physical, biological, and plant compatibility for all scenarios that may be encountered; therefore, it is recommended that users determine the chemical, physical, biological, and plant compatibility of such mixes prior to application on a broad commercial scale.

## Order of mixing

SIVANTO prime may be used with other recommended pesticides, fertilizers, and micronutrients. The proper mixing procedure for SIVANTO prime alone or in tank mix combinations with other pesticides is the following:

1. Fill the spray tank 1/4 to 1/3 full with clean water.
2. While recirculating and with the agitator running, add any products in PVA bags (**See Note**). Allow time for thorough mixing.
3. Continue to fill spray tank with water until 1/2 full.
4. Add any wettable powder (WP), water dispersible granule (WG/WDG) products, or "flowable" (FL/SC) type products.
5. Allow enough time for thorough mixing of each product added to tank.
6. Add required amount of SIVANTO prime.
7. If applicable, add any remaining tank mix components: emulsifiable concentrates (EC), fertilizers and micronutrients.
8. Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

**NOTE:** Do not use PVA packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents.

## ROTATIONAL CROPS\*

Treated areas may be replanted with any crop specified on this label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application.

### **Immediate plant-back applies to the following crops:**

Alfalfa, Brassica (cole) leafy vegetables, Cereal grains (except rice), Cilantro, Clover\*\*, Cotton, Cucurbit vegetables, Fruiting vegetables, Hop, Kava, Leafy vegetables, Legume vegetables (succulent or dried), Peanut, Quinoa, Root vegetables (except sugarbeet), Tuberous and Corm vegetables.

Bulb Vegetable Group 3-07 including: Chive (fresh leaves), Chinese chive (fresh leaves), Daylily (bulb), Elegans hosta, Fritillaria (bulb and leaves), Garlic (common group, great-headed group, serpent group), Kurrat group, Leek group (including common, lady's, wild), Lily (bulb), Onion (bulb and green leaves including: common group, Beltsville bunching, Chinese bulb, fresh, green, macrostem, Pearl group, potato onion group, tree onion-tops, Welsh-tops), Shallot (bulb, fresh leaves), and cultivars, varieties, and/or hybrids of these.

**For crops not specified on this label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval must be observed, except for the following crops:**

### **14-DAY PLANT-BACK:**

Sugarcane (Florida Only\*\*\*)

\* Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

\*\* Idaho, Oregon, and Washington

\*\*\* Sugarcane: 12-month plant back in all registered states except Florida (14-Day).

## CROP USE DIRECTIONS

Choose lower rate for light infestations and the higher rate for heavy infestations

<b>ALFALFA – FOLIAR</b> <b>Grown For Forage, Fodder, Straw, and Hay</b>	
<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers	7.0 – 14.0
Threecornered alfalfa hopper Whiteflies	10.5 – 14.0
<b>Pests Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Tarnished plant bug ( <i>Lygus lineolaris</i> ) Western plant bug ( <i>Lygus hesperus</i> )	14.0
<b>Foliar Application Restrictions:</b> Pre-Harvest Interval (PHI): <b>7 days</b> Minimum interval between applications: <b>10 days</b> Minimum application volumes: <b>10 gallons/Acre</b> (Ground); <b>3 gallons/Acre</b> (Aerial) Do not apply more than <b>0.365 lb</b> flupyradifurone ( <b>28.0 fl oz</b> of SIVANTO prime) per acre per calendar year on alfalfa, regardless of product or formulation.	



**BRASSICA (COLE) LEAFY VEGETABLES<sup>1</sup> – FOLIAR**

**Crops of Crop Group 5, including:** Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (*gai lon*), Chinese cabbage (*bok choy*), Chinese cabbage (*napa*), Chinese mustard cabbage (*gai choy*), Collards, Kale, Kava leaves, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers	7.0 – 14.0
Aphids (except green peach aphid)	7.0 – 14.0
Green peach aphid Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **1 day** – All crops except Kava leaves; **7 days** - Kava leaves  
Minimum interval between applications: **7 days** - All crops except Kava leaves; **10 days** - Kava leaves

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on brassica (cole) leafy vegetables, regardless of method of application, product or formulation.

Maximum number of crop seasons per year: **3**

<sup>1</sup> See separate table for turnip greens use directions

**BRASSICA (COLE) LEAFY VEGETABLES<sup>1</sup> – SOIL**

**Crops of Crop Group 5, including:** Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (*gai lon*), Chinese cabbage (*bok choy*), Chinese cabbage (*napa*), Chinese mustard cabbage (*gai choy*), Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers Whiteflies	21.0 – 28.0

**Soil Application Restrictions:**

Pre-Harvest Interval (PHI): **21 days**

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on brassica (cole) leafy vegetables, regardless of method of application, product or formulation.

Maximum number of crop seasons per year: **3**

**Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Injection below the eventual seed line prior to planting. Place SIVANTO prime 3 - 4 inches below seed line
- Potting hole drench at transplanting
- Post-transplant drench following setting and covering

<sup>1</sup> See separate table for turnip greens use directions

**BUSHBERRY – FOLIAR**

**Crops of Crop Subgroup 13-07B (except Cranberry), including:** Aronia berry, Blueberry (*Vaccinium* spp. – highbush, lowbush, and cultivars and/or hybrids of these), Chilean guava, Currant (black, buffalo, native and red), Elderberry, European barberry, Gooseberry (*Ribes* spp.), Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Lingonberry, Salal, Sea buckthorn, and cultivars, varieties and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids	7.0 – 14.0
Blueberry thrips - feeding damage reduction ( <i>Frankliniella vaccinii</i> )	10.5 – 14.0
Blueberry maggot	12.0 – 14.0
<b>Pests Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Blueberry thrips ( <i>Scirtothrips citri</i> )	10.5 – 14.0
Chilli thrips ( <i>Scirtothrips dorsalis</i> )	14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **3 days**

Minimum interval between applications: **7 days**

Minimum application volumes: **25 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on bushberry, regardless of product or formulation.

**CANEBERRY – FOLIAR**

**Crops of Crop Subgroup 13-07A, including:** Blackberry, Loganberry, Raspberry (black and red), Wild raspberry, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids	7.0 – 14.0
Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **0 day**

Minimum interval between applications: **7 days**

Minimum application volumes: **30 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on caneberry, regardless of product or formulation.

**CEREAL GRAINS – FOLIAR****Including production for seed****Crops of Crop Group 15 & 16 (Except Rice), including:** Barley, Buckwheat, Corn (field corn, seed corn, sweet corn and popcorn), Millet (pearl and proso), Oats, Quinoa, Rye, Sorghum (except sweet sorghum grown for syrup), Teosinte, Triticale, and Wheat

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers	7.0 – 14.0
Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **7 days** - hay, forage or sweet corn; **21 days** - dried grain, stover or strawMinimum interval between applications: **7 days**Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on cereal grains, regardless of product or formulation.

## CITRUS FRUIT – FOLIAR

**Crops of Crop Group 10-10, including:** Calamondin, Citrus citron, Citrus hybrids (*Citrus* spp., *Eremocitrus* spp., *Fortunella* spp., *Microcitrus* spp., and *Poncirus* spp.), Grapefruit (including Japanese summer), Kumquat, Lemon, Lime, Lime (Sweet, Australian desert, Australian finger, Australian round, Brown River finger, Mount White, New Guinea wild, Russell River, Tahiti), Mandarin (Mediterranean, Satsuma), Orange (sour, sweet, Tachibana, Trifoliolate), Pummelo, Tangelo, Tangerine (including Mandarin tangerine and orange, Clementine, Mediterranean and Satsuma Mandarin, Tangelo, and Tangor cultivars and varieties), Tangor, Uniq fruit, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>		<b>Product Rate (fl oz/A)</b>
Aphids	Citrus mealybug	7.0 – 14.0
Asian citrus psyllid	Citricola scale      Whiteflies	10.5 – 14.0
<b>Pests Suppressed</b>		<b>Product Rate (fl oz/A)</b>
Barnacle scale <sup>2</sup>	Citrus thrips      Katydid nymphs ( <i>Scirtothrips citri</i> )	10.5 – 14.0
Citrus leafminer		14.0

### **Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **1 day**

Minimum interval between applications: **10 days**

Minimum application volumes<sup>1</sup>: **50 gallons/Acre** (Ground); **10 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on citrus fruit, regardless of method of application, product or formulation.

<sup>1</sup> For Florida only- minimum application volumes: 2.5 gallons/Acre (Ground); For Florida and Texas only: 3 gallons/Acre (Aerial) for control of Asian citrus psyllid. For control or suppression of other pests, application volumes should be increased to provide thorough and complete coverage to obtain adequate control.

### **Foliar Application Notes:**

<sup>2</sup> Time SIVANTO prime applications for control of barnacle scale according to crawler stage. Two applications may be required to achieve best efficacy.

**CITRUS FRUIT – SOIL**

**Crops of Crop Group 10-10, including:** Calamondin, Citrus citron, Citrus hybrids (*Citrus* spp., *Eremocitrus* spp., *Fortunella* spp., *Microcitrus* spp., and *Poncirus* spp.), Grapefruit (including Japanese summer), Kumquat, Lemon, Lime, Lime (Sweet, Australian desert, Australian finger, Australian round, Brown River finger, Mount White, New Guinea wild, Russell River, Tahiti), Mandarin (Mediterranean, Satsuma), Orange (sour, sweet, Tachibana, Trifoliolate), Pummelo, Tangelo, Tangerine (including Mandarin tangerine and orange, Clementine, Mediterranean and Satsuma Mandarin, Tangelo, and Tangor), Tangor, UniQ fruit, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Asian citrus psyllid Whiteflies	21.0 – 28.0
<b>Pest Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Citrus canker ( <i>Xanthomonas citri</i> subsp. <i>citri</i> )	28.0

**Soil Application Restrictions:**

Pre-Harvest Interval (PHI): **30 days**

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on citrus fruit, regardless of method of application, product or formulation.

**Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Basal drench in sufficient water to move SIVANTO prime into root zone

**CLOVER<sup>1</sup> – FOLIAR****Grown For Forage, Fodder, Seed, Straw, and Hay**

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers	7.0 – 14.0

**Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **14 days**Minimum interval between applications: **10 days**Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on clover, regardless of product or formulation.<sup>1</sup> Idaho, Oregon, and Washington**COTTON – FOLIAR****Including production for seed**

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Fleahoppers	7.0 – 14.0
Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **14 days**Minimum interval between applications: **10 days**Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on cotton, regardless of product or formulation.



**CUCURBIT VEGETABLES – FOLIAR**

**Crops of Crop Group 9, including:** Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible, including hyotan, cucuzza, hechima, and Chinese okra), *Momordica* spp. (including balsam apple, balsam pear, bitter melon, and Chinese cucumber), Pumpkin, Squash (including summer squash types such as crookneck squash, scallop squash, straightneck squash, vegetable marrow, and zucchini and winter squash types such as acorn squash, butternut squash, calabaza, cushaw, Hubbard squash, and spaghetti squash), Watermelon (including hybrids and/or varieties of *Citrullus lanatus*)

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers	7.0 – 14.0
Aphids (except green peach aphid)	7.0 – 14.0
Green peach aphid Squash bug Whiteflies	10.5 – 14.0

(continued)

## **CUCURBIT VEGETABLES – FOLIAR (*continued*)**

### **Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **1 day**

Minimum interval between applications: **7 days**

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on cucurbit vegetables, regardless of product or formulation.

**Do not apply SIVANTO prime as a foliar application to muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon).**

### **Foliar Application Note:**

A mild yellowing on leaf margins is sometimes seen following application of SIVANTO prime in cucurbits.

**CUCURBIT VEGETABLES – SOIL**

**Crops of Crop Group 9, including:** Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible, including hyotan, cucuzza, hechima, and Chinese okra), *Momordica* spp. (including balsam apple, balsam pear, bitter melon, and Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin, Squash (including summer squash types such as crookneck squash, scallop squash, straightneck squash, vegetable marrow, and zucchini and winter squash types such as acorn squash, butternut squash, calabaza, cushaw, Hubbard squash, and spaghetti squash), Watermelon (including hybrids and/or varieties of *Citrullus lanatus*)

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers Whiteflies	21.0 – 28.0
<b>Disease Suppressed</b>	<b>Product Rate (fl oz/A)</b>
CYSDV – Cucurbit yellow stunting disorder virus	28.0

(continued)

## **CUCURBIT VEGETABLES – SOIL (*continued*)**

### **Soil Application Restrictions:**

Pre-Harvest Interval (PHI): **21 days**

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on cucurbit vegetables, regardless of method of application, product or formulation.

Maximum number of crop seasons per year: **3**

### **Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Injection below the eventual seed line prior to planting. Place SIVANTO prime 3-4 inches below seed line
- Potting hole drench at transplanting
- Post-transplant drench following setting and covering

### **Soil Application Note:**

A mild yellowing on leaf margins is sometimes seen following application of SIVANTO prime in cucurbits.

**FRUITING VEGETABLES – FOLIAR**

**Crops of Crop Group 8-10, including:** Cocona, Eggplant (including African, pea, and scarlet eggplants), Garden huckleberry, Goji berry, Groundcherry, Martynia, Naranjilla, Okra, Pepino, Pepper (including all peppers, i.e., bell, non-bell, hot, sweet, etc.), Roselle, Sunberry, Tomatillo, and Tomato (including bush, currant, tree) including cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers	7.0 – 14.0
Aphids (except green peach aphid)	7.0 – 14.0
Green peach aphid Colorado potato beetle Psyllid Whiteflies	10.5 – 14.0
<b>Pest/Disease Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Chilli thrips ( <i>Scirtothrips dorsalis</i> )	12.0 - 14.0
TYLCV – Tomato yellow leaf curl virus	14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **1 day**

Minimum interval between applications: **7 days**

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on fruiting vegetables, regardless of product or formulation.

## FRUITING VEGETABLES – SOIL

**Crops of Crop Group 8-10, including:** Cocona, Eggplant (including: African, pea, and scarlet), Garden huckleberry, Goji berry, Groundcherry, Martynia, Naranjilla, Okra, Pepino, Pepper (including all peppers, i.e., bell, non-bell, hot, sweet, etc.), Roselle, Sunberry, Tomatillo, and Tomato (including bush, currant, tree) including cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>		<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers	Psyllid Whiteflies	21.0 – 28.0
<b>Disease Suppressed</b>		<b>Product Rate (fl oz/A)</b>
TYLCV – Tomato yellow leaf curl virus		28.0

### **Soil Application Restrictions:**

Pre-Harvest Interval (PHI): **45 days**

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on fruiting vegetables, regardless of method of application, product or formulation.

Maximum number of crop seasons per year: **3**

### **Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Injection below the eventual seed line prior to planting. Place SIVANTO prime 3-4 inches below seed line
- Potting hole drench at transplanting
- Post-transplant drench following setting and covering

**HOP – FOLIAR**

<b>Pest Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids	7.0 – 14.0

**Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **21 days**Minimum application volumes: **25 gallons/Acre** (Ground); **10 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on hop, regardless of product or formulation.**LEAFY VEGETABLES<sup>1</sup> (except Brassica) – FOLIAR**

**Crops of Crop Group 4, including:** Amaranth (leafy, Chinese spinach, and tampala), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese celery, Chrysanthemum (edible-leaved and garland), Cilantro (fresh leaves), Corn salad, Cress (garden), Cress (upland, yellow rocket, and winter cress), Dandelion, Dock (sorrel), Endive, Florence fennel (sweet anise, sweet fennel, and Finocchio), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach (including New Zealand and Malabar and Indian vine spinach), and Swiss chard

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers	7.0 – 14.0
Aphids (except green peach aphid)	7.0 – 14.0
Green peach aphid      Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **1 day**Minimum interval between applications: **7 days**Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on leafy vegetables, regardless of method of application, product or formulation.Maximum number of crop seasons per year: **3**<sup>1</sup> See separate table for taro leaves use directions

**LEAFY VEGETABLES<sup>1</sup> (except Brassica) – SOIL**

**Crops of Crop Group 4, including:** Amaranth (leafy amaranth, Chinese spinach, and tampala), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese celery, Chrysanthemum (edible-leaved and garland), Cilantro (fresh leaves), Corn salad, Cress (garden), Cress (upland, yellow rocket, and winter cress), Dandelion, Dock (sorrel), Endive, Florence fennel (sweet anise, sweet fennel, and Finocchio), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach (including New Zealand and Malabar and Indian vine spinach), and Swiss chard

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers Whiteflies	21.0 – 28.0

**Soil Application Restrictions:**

Pre-Harvest Interval (PHI): **21 days**

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on leafy vegetables, regardless of method of application, product or formulation.

Maximum number of crop seasons per year: **3**

**Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Injection below the eventual seed line prior to planting. Place SIVANTO prime 3-4 inches below seed line
- Potting hole drench at transplanting
- Post-transplant drench following setting and covering

<sup>1</sup> See separate table for taro leaves use directions



**LEGUME VEGETABLES (SUCCULENT OR DRIED) – FOLIAR**

**Crops of Crop Group 6, including:** Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean

Bean (*Lupinus* spp., including grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus* spp., including field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, and wax bean), Bean (*Vigna* spp., including adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, and yardlong bean), Pea (*Pisum* spp. including dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, and sugar snap pea), Other Beans and Peas (Broad bean (fava bean), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean (hyacinth bean), Lentil, Pigeon pea, soybean (immature seed), and Sword bean), Soybean

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers	7.0 – 14.0
Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **7 days** – Forage, Leaves, Vines, Pods, Cutting for Hay, or Seed (fresh or dry, except dry soybean seed); **21 days** – dry soybean seed

Minimum interval between applications: **10 days**

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on legume vegetables (succulent or dried), regardless of product or formulation.

**LOW GROWING BERRY – FOLIAR**

**Crops of Crop Subgroup 13-07G (except Cranberry), including:** Bearberry, Bilberry, Blueberry (lowbush), Cloudberry, Lingonberry, Muntries, Partridgeberry, Strawberry, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids	7.0 – 14.0
Blueberry thrips - feeding damage reduction ( <i>Frankliniella vaccinii</i> ) Whiteflies	10.5 – 14.0
Blueberry maggot	12.0 – 14.0
<b>Pests Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Blueberry thrips ( <i>Scirtothrips citri</i> )	10.5 – 14.0
Chilli thrips ( <i>Scirtothrips dorsalis</i> )	14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **0 day**

Minimum interval between applications: **10 days**

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on low growing berry, regardless of product or formulation.

<b>PEANUT – FOLIAR</b>	
<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers	7.0 – 14.0
Threecornered alfalfa hopper Whiteflies	10.5 – 14.0
<p><b>Foliar Application Restrictions:</b>            Pre-Harvest Interval (PHI): <b>7 days</b>            Minimum interval between applications: <b>10 days</b>            Minimum application volumes: <b>10 gallons/Acre</b> (Ground); <b>3 gallons/Acre</b> (Aerial)            Do not apply more than <b>0.365 lb</b> flupyradifurone (<b>28.0 fl oz</b> of SIVANTO prime) per acre per calendar year on peanut, regardless of product or formulation.</p>	

<b>POME FRUIT – FOLIAR</b>	
<p><b>Crops of Crop Group 11-10, including:</b> Apple, Azarole, Crabapples (Chinese apple, Chinese crab apple, Chinese flowering apple, Crab apple, Cutleaf crab apple, Florentine crab apple, Hall crab apple, Iowa crab apple, Japanese crab apple, Kai do crab apple, Manchurian crab apple, Paradise apple, Sargent's crab apple, Siberian crab apple, Soulard crab apple, Southern crab apple, Sweet crab apple, Tea crab apple, Toringa crab apple, Western crabapple, Yunnan crab apple, and varieties and/or hybrids of these), Loquat, Mayhaw, Medlar, Pear, Asian pear, Quince, Chinese quince, Japanese quince, Tejocote, and cultivars, varieties, and/or hybrids of these commodities</p>	
<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids (except Woolly apple aphid) Leafhoppers	7.0 – 14.0

<b>POME FRUIT – FOLIAR (continued)</b>	
<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Oystershell scale Pear psylla San Jose scale <sup>1</sup>	10.5 – 14.0
<b>Pest Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Woolly apple aphid	12.0 – 14.0
<p><b>Foliar Application Restrictions:</b>  Pre-Harvest Interval (PHI): <b>14 day</b>  Minimum interval between applications: <b>10 days</b>  Minimum application volumes: <b>25 gallons/Acre</b> (Ground); <b>10 gallons/Acre</b> (Aerial)  Do not apply more than <b>0.365 lb</b> flupyradifurone (<b>28.0 fl oz</b> of SIVANTO prime) per acre per calendar year on pome fruit, regardless of product or formulation.  Do not apply SIVANTO prime with horticultural oils to pear in late-season or during periods of above average temperatures.</p> <p><b>Foliar Application Notes:</b>  For best results, combine SIVANTO prime with a horticultural oil for pre-bloom applications targeting San Jose scale.  <sup>1</sup> Suppression in Idaho, Oregon, and Washington.</p>	

**ROOT VEGETABLES (except Sugarbeet) – FOLIAR**

**Crops of Crop Subgroup 1B, including:** Beet (garden), Burdock (edible), Carrot, Celeriac (celery root), Chervil (turnip-rooted), Chicory, Ginseng, Horseradish, Kava, Parsley (turnip-rooted), Parsnip, Radish, Oriental radish (daikon), Rutabaga, Salsify (black), Salsify (oyster plant), Salsify (Spanish), Skirret, and Turnip

Pests Controlled		Product Rate (fl oz/A)
Aphids	Leafhoppers	7.0 – 14.0
Whiteflies		10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **7 days**

Minimum interval between applications: **10 days**

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on root vegetables, regardless of product or formulation.

Do not harvest the tops (leaves) from any crop listed under Crop Subgroup 1B, except turnip greens and kava leaves, for human or livestock consumption.

**SMALL FRUIT VINE CLIMBING (except Fuzzy kiwifruit) – FOLIAR**

**Crops of Crop Subgroup 13-07F, including:** Amur River grape, Gooseberry (*Ribes* spp.), Grape, Kiwifruit (hardy only), Maypop, Schisandra berry, and cultivars, varieties, and/or hybrids of these commodities

Pests Controlled		Product Rate (fl oz/A)
Leafhoppers (including Sharpshooters)		7.0 – 14.0
Vine mealybug		12.0 – 14.0

**SMALL FRUIT VINE CLIMBING (except Fuzzy kiwifruit) – FOLIAR (continued)****Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **0 day**Minimum interval between applications: **10 days**Minimum application volumes: **25 gallons/Acre** (Ground); **10 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (28.0 fl oz of SIVANTO prime) per acre per calendar year on small fruit vine climbing, regardless of method of application, product or formulation.**SMALL FRUIT VINE CLIMBING (except Fuzzy kiwifruit) – SOIL****Crops of Crop Subgroup 13-07F, including:** Amur River grape, Gooseberry (*Ribes* spp.), Grape, Kiwifruit (hardy, only), Maypop, Schisandra berry, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers (including Sharpshooters) Vine mealybug	21.0 – 28.0

**Soil Application Restrictions:**Pre-Harvest Interval (PHI): **30 days**Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on small fruit vine climbing, regardless of method of application, product or formulation.**Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Basal drench in sufficient water to move SIVANTO prime into root zone

**STONE FRUIT – FOLIAR**

**Crops of Crop Group 12-12, including:** Apricot (including Japanese apricot), Capulin, Cherry (including Black cherry, Nanking cherry, Sweet cherry, and Tart cherry), Chinese Jujube, Nectarine, Peach, Plum (including American plum, Beach plum, Canada plum, Cherry plum, Chickasaw plum, Damson plum, Japanese plum, Klamath plum, and Prune plum), Plumcot, Sloe, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids	7.0 – 14.0
San Jose Scale <sup>1</sup>	10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **14 days**

Minimum interval between applications: **10 days**

Minimum application volumes: **25 gallons/Acre** (Ground); **10 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on stone fruit, regardless of product or formulation.

**Foliar Application Notes:**

For best results, combine SIVANTO prime with a horticultural oil for pre-bloom applications targeting San Jose scale.

<sup>1</sup> Suppression in Idaho, Oregon, and Washington.

**TARO LEAVES – FOLIAR**

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers	7.0 – 14.0
Aphids Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**Pre-Harvest Interval (PHI): **1 day**Minimum interval between applications: **7 days**Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on taro leaves, regardless of method of application, product or formulation.Maximum number of crop seasons per year: **3**



<b>TARO LEAVES – SOIL</b>	
<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers Whiteflies	21.0 – 28.0
<p><b>Soil Application Restrictions:</b>            Pre-Harvest Interval (PHI): <b>21 days</b>            Do not apply more than <b>0.365 lb</b> flupyradifurone (<b>28.0 fl oz</b> of SIVANTO prime) per acre per crop season on taro leaves, regardless of method of application, product or formulation.            Maximum number of crop seasons per year: <b>3</b></p> <p><b>Soil Application Notes:</b>            SIVANTO prime may be applied at the specified dosage by the following methods:</p> <ul style="list-style-type: none"> <li>• Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment</li> <li>• Injection below the eventual seed line prior to planting. Place SIVANTO prime 3-4 inches below seed line</li> <li>• Potting hole drench at transplanting</li> <li>• Post-transplant drench following setting and covering</li> </ul>	

## TREE NUT – FOLIAR

**Crops of Crop Group 14-12 (except Almond), including:** African nut-tree, Beechnut, Brazil nut, Brazilian pine, Bunya, Bur oak, Butternut, Cajou nut, Candlenut, Cashew, Chestnut, Chinquapin, Coconut, Coquito nut, Dika nut, Ginkgo, Guiana chestnut, Hazelnut (filbert), Heartnut, Hickory nut, Japanese horse-chestnut, Macadamia nut, Mongongo nut, Monkey-pot, Monkey puzzle nut, Okari nut, Pachira nut, Peach palm nut, Pecan, Pequi, Pili nut, Pine nut, Pistachio, Sapucaia nut, Tropical almond, Walnut (including black and English), Yellowhorn, and cultivars, varieties, and/or hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids	7.0 – 14.0
Whiteflies	10.5 – 14.0

### **Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **7 day**

Minimum interval between applications: **14 days**

Minimum application volumes: **25 gallons/Acre** (Ground); **10 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on tree nut, regardless of product or formulation.

**TROPICAL AND SUBTROPICAL, MEDIUM TO LARGE FRUIT, SMOOTH, INEDIBLE PEEL - FOLIAR**

**Crops of Crop Subgroup 24B, including:** Abiu, Akee apple, Avocado (including Guatemalan, Mexican, and West Indian), Bacury, Banana (including dwarf), Binjai, Canistel, Cupuacú, Etambe, Jatobá, Kei apple, Langstat, Lanjut, Lucuma, Mabolo, Mango (including horse and Saipan), Mangosteen, Paho, Papaya, Pawpaw (common), Pelipisan, Pequi, Pequia, Persimmon (American), Plantain, Pomegranate, Poshte, Quandong, Sapote (including black, green, and white), Sataw, Screw-pine, Star apple, Tamarind-of-the-Indies, and Wild loquat, and cultivars, varieties and hybrids of these commodities

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Whiteflies	10.5 – 14.0
<b>Pests Suppressed</b>	<b>Product Rate (fl oz/A)</b>
Avocado thrips ( <i>Scirtothrips perseae</i> )	10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **0 day (Pomegranate); 1 day (Other listed crops)**

Minimum interval between applications: **7 days (Pomegranate); 14 days (Other listed crops)**

Minimum application volumes: **25 gallons/Acre** (Ground); **10 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on tropical and subtropical, medium to large fruit, smooth, inedible peel, regardless of product or formulation.

**TUBEROUS and CORM VEGETABLES – FOLIAR**

**Crops of Crop Subgroup 1C including:** Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible), Cassava (bitter and sweet), Chayote (root)<sup>1</sup>, Chufa, Dasheen (taro), Ginger, Leren, Potato<sup>2</sup>, Sweet potato, Tanier (cocoyam), Turmeric, Yam bean (jicama, manioc pea), Yam (true)

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids (except green peach aphid) Leafhoppers	7.0 – 14.0
Green peach aphid Colorado potato beetle Potato psyllid Whiteflies	10.5 – 14.0

**Foliar Application Restrictions:**

Pre-Harvest Interval (PHI): **7 days**

Minimum interval between applications: **7 days**

Minimum application volumes: **10 gallons/Acre** (Ground); **3 gallons/Acre** (Aerial)

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per calendar year on tuberous and corm vegetables, regardless of product or formulation.

**Foliar Application Notes:**

<sup>1</sup> See cucurbit vegetables Crop Group 9 for Chayote (fruit).

<sup>2</sup> For optimum control of potato psyllid, use of MSO adjuvant or similar is recommended.

<b>TURNIP GREENS – FOLIAR</b>	
<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Leafhoppers	7.0 – 14.0
Aphids (except green peach aphid)	7.0 – 14.0
Green peach aphid Whiteflies	10.5 – 14.0
<p><b>Foliar Application Restrictions:</b>            Pre-Harvest Interval (PHI): <b>1 day</b>            Minimum interval between applications: <b>7 days</b>            Minimum application volumes: <b>10 gallons/Acre</b> (Ground); <b>3 gallons/Acre</b> (Aerial)            Do not apply more than <b>0.365 lb</b> flupyradifurone (<b>28.0 fl oz</b> of SIVANTO prime) per acre per crop season on turnip greens, regardless of method of application, product or formulation.            Maximum number of crop seasons per year: <b>3</b></p>	

**TURNIP GREENS – SOIL**

<b>Pests Controlled</b>	<b>Product Rate (fl oz/A)</b>
Aphids Leafhoppers Whiteflies	21.0 – 28.0

**Soil Application Restrictions:**

Pre-Harvest Interval (PHI): **21 days**

Do not apply more than **0.365 lb** flupyradifurone (**28.0 fl oz** of SIVANTO prime) per acre per crop season on turnip greens, regardless of method of application, product or formulation.

Maximum number of crop seasons per year: **3**

**Soil Application Notes:**

SIVANTO prime may be applied at the specified dosage by the following methods:

- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment
- Injection below the eventual seed line prior to planting. Place SIVANTO prime 3 - 4 inches below seed line
- Potting hole drench at transplanting
- Post-transplant drench following setting and covering

## STORAGE AND DISPOSAL

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

### **Pesticide Storage**

Store in original container away from feed and food. Store in cool, dry area. Do not store in direct sunlight. Do not allow prolonged storage in temperatures that exceed 105°F (40°C) or in temperatures that fall below 14°F (-10°C).

### **Pesticide Disposal**

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### **Container Handling**

#### **Non-Refillable Containers**

Rigid, Non-refillable containers (equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure 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.

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

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or incineration.





NET CONTENTS: 1 GALLON

## SIVANTO™ prime

For use in pest management and suppression of listed insects which vector diseases.

ACTIVE INGREDIENT: Flupyradifurone*	17.09%
OTHER INGREDIENTS:	82.91%

Contains 1.67 pounds active ingredient per U.S. gallon (200 grams AI/liter) TOTAL: 100.00%  
\*CAS No. 951659-40-8

EPA Reg. No. 264-1141

## KEEP OUT OF REACH OF CHILDREN CAUTION

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY**  
Call 24 Hours a Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-866-99BAYER (1-866-992-2937)

Please refer to booklet for additional precautionary statements and directions for use.

### FIRST AID

**If swallowed:** • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person. **If on skin or clothing:** • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice. **If in eyes:** • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.

**In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.**

Note to Physician: No specific antidote. Treat the patient symptomatically.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMAN AND DOMESTIC ANIMALS CAUTION

• Harmful if swallowed. • Harmful if absorbed through skin. • Causes moderate eye

### FLUPYRADIFURONE GROUP 4D INSECTICIDE

irritation. • Avoid contact with eyes, skin, and clothing. • Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container away from feed and food. Store in cool, dry area. Do not store in direct sunlight. Do not allow prolonged storage in temperatures that exceed 105°F (40°C) or in temperatures that fall below 14°F (-10°C).

**Pesticide Disposal:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

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

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or incineration.

Bayer CropScience LP

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