LEAFY VEGETABLES GROUP - GREENHOUSE WHITEFLY, SILVERLEAF WHITEFLY, ETC.

General Information

Use Restrictions
- Apply this product only as specified on this label.
- DO NOT apply this product using ultra low volume (ULV) applications.
- Versys Inscalis Insecticide is intended for use by professional applicators (including farmers and growers).
- Versys is NOT for homeowner use.
- DO NOT exceed the maximum seasonal use rate, the maximum rate per application, or the total number of Versys applications per season as stated in the Cropspecific Application Instructions table. Preharvest Interval (PHI) restrictions are also included in this table.
- Versys is NOT for sale, distribution, or use in Nassau or Suffolk counties in New York state except by New Yorkspecific supplemental labeling.
- Versys is NOT for use in greenhouses.
- DO NOT make more than 2 sequential applications before rotating to a product of a different mode of action group.
- 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.
- DO NOT make Versys applications at intervals shorter than 7 days.
- No plant-back interval for Brassica head and stem vegetables, cotton, cucurbits, fruiting vegetables, leaf petioles vegetables, leafy vegetables, pome fruit, root crops, soybean, stone fruit, tree nuts, or tuberous and corm vegetables. A 30-day plant-back interval back is appropriate for all food crops not listed above.
- For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Product Information
Versys Inscalis Insecticide contains the technical active ingredient Inscalis insecticide, commonly known as afidopyropen. When used as directed, Versys provides knockdown and residual control of listed pests including aphids and whiteflies within the crops included on this label. Versys is active against whitefly
egg, early instar, and adult life stages. Additionally, some scale pests are controlled or suppressed by Versys. Versys acts quickly to inhibit feeding. While Versys does demonstrate translaminar activity, and moves toward plant leaf margins, it is not fully systemic. Therefore, good coverage of plant surfaces will result in the most effective control. Use of sufficient water volume is important, especially under dense canopy to ensure best performance.

Versys can be used effectively in Integrated Pest Management (IPM) and resistance management programs.

Mode of Action
The active ingredient in Versys is classified by the IRAC (Insecticide Resistance Action Committee) as target-site-of-action Group 9D insecticide, a chordotonal organ TRPV (Transient Receptor Potential Vanilloid) channel modulator. Versys disrupts the gating of TRPV (Transient Receptor Potential Vanilloid) channel complexes in chordotonal stretch receptor organs of insects. This disrupts feeding and other behaviors in target insects. Repeated use of insecticides with similar modes of action can lead to the buildup of resistant pest populations.

Resistance Management
For resistance-management, Versys contains a Group 9D insecticide. Any insect population may contain individuals naturally resistant to Versys and other Group 9D 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 reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:
- Rotate the use of Versys or other Group 9D insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of Versys per season.

- Use tank mixtures 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 classification are not recommended for insect resistance management.
- When using mixtures, consider any known crossresistance 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.
- 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/acaricides 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 BASF representatives at 1-800-832-HELP (4357).

Application Instructions
For maximum effectiveness, apply Versys Inscalis Insecticide at the first sign of pest presence before the populations increase to damaging levels. Application should be timed to coincide with locally recommended treatment threshold levels for the
target pest population.

Versys is rainfast one (1) hour after an application has dried.

Apply Versys in a sufficient volume of water to ensure thorough coverage of foliage.

Ground Application
Apply to foliage using properly calibrated ground sprayers. Thorough and uniform spray will result in the most effective control. Apply Versys in minimum water volume per acre as indicated in Crop-specific Application Instructions table. Applications made at lower volumes may result in less than thorough coverage especially in dense canopy crops. Slower activity and/or less control may result if spray coverage is limited.

Aerial Application
Thorough coverage is required to obtain optimum insect control when aerial applications are employed. Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. Use no less than the minimum allowed gallons of spray solution per acre. Refer to Crop-specific Application Instructions table. For all crops, thorough coverage is required for optimum pest insect control. DO NOT apply when conditions favor drift from target area. DO NOT apply directly to humans or animals.

Sprinkler Irrigation System Application
Versys may be applied using sprinkler irrigation systems on specific crops as noted in the Crop-specific Application Instructions table.

Application Through Sprinkler Irrigation Systems This product can be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. DO NOT apply this product through any other type of irrigation system.

Add this product to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product-water mixture continuously, applying the labeled rate per acre for that crop. DO NOT exceed 1/4 inch (6,788 gallons) per acre. In stationary or noncontinuous moving systems, inject the product-water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that
crop. DO NOT apply when wind speed favors drift beyond the area intended for
treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop
can result from nonuniform distribution of treated water. Thorough coverage of
foliage is required for good control. Maintain good agitation during the entire
application period. If you have questions about calibration, you should contact a
state extension service specialist, equipment manufacturers or other experts.

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.

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

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, backflow 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 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.

7. DO NOT apply when wind speed favors drift beyond the area intended for treatment.

Spray Drift Reduction Management
DO NOT apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.
Importance of Droplet Size. An important factor influencing drift is droplet size. Small droplets (<150 to 200 microns) drift more than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Use only medium or coarser spray nozzles (for ground and aerial applications) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Ground Applications. Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application. For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two (2) rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Aerial Applications. The spray boom should be mounted on the aircraft to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or 80% rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size. Spray must be released at the lowest height consistent with pest control and flight safety. DO NOT release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Wind Speed Restrictions. Drift potential increases at wind velocities of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Only apply this product if the wind direction favors ontarget deposition. DO NOT apply when wind velocity exceeds 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions. DO NOT make ground applications during temperature inversions. Drift potential is high during temperature inversions.
Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by stable air and increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by mist or ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally near the ground surface in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

Cleaning Spray Equipment
Before application, start with clean, well-maintained application equipment. Following spray application, thoroughly clean all application equipment. Drain application equipment of any excess product. Thoroughly rinse application equipment and flush hoses, boom, and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. DO NOT clean equipment near wells, water sources, or desirable vegetation.

Limitations, Restrictions, and Exceptions

LEAFY VEGETABLES GROUP

Leafy vegetables group Restrictions: For maximum effectiveness, apply Versys Inscalis Insecticide at the first sign of pest presence, and before the population increases to damaging levels. Application should be timed to coincide with locally recommended treatment threshold levels in developing pest populations.

Apply Versys at spray volumes sufficient to ensure thorough crop coverage for optimal performance. Use of an adjuvant for whitefly control may improve the performance of Versys.

Minimum spray carrier volume (per acre): 10 gallons for ground; 5 gallons for air.

Minimum retreatment interval: 7 days.
Resistance Management. DO NOT make more than 2 sequential applications of Versys before using an effective insecticide with a different mode of action.

DO NOT apply more than 14 fl ozs of Versys (0.09 lb afidopyropen ai) per acre per season.

Maximum crop seasons per year: 3.

Method
- Broadcast/Foliar Air
- Broadcast/Foliar Ground

Restricted Entry Interval

12 hours

Timings
- At the first sign of pest presence, and before the population increases to damaging levels.