

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

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

## NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

EPA Reg. Number	<b>EPA</b>	Reg.	Num	ber
-----------------	------------	------	-----	-----

Date of Issuance:

7969-393

09/10/2018

<b>Term</b>	of	eema	nce

Unconditional

Name of Pesticide Product:

Ventigra® Insecticide

Name and Address of Registrant (include ZIP Code):

Ms. Catherine M. Holmes Product Registration Manager BASF Corporation, Agricultural Products 26 Davis Drive, P.O. Box 13528 Research Triangle Park, NC 27709-3528

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5), provided that you:

- 1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 7969-393."

Signature of Approving Official:

Marion J. Johnson, Jr., Chief
Invertebrate & Vertebrate Branch 2

Registration Division (7505P)

Date:

09/10/2018

EPA Form 8570-6

Page 2 of 2 EPA Reg. No. 7969-393 Decision No. 516386

3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

Basic CSF dated 03/31/2016

If you have any questions, please contact Mr. Carmen J. Rodia, Jr. by phone at (703) 306-0327, or via email at *Rodia.Carmen@epa.gov*.

Enclosures: Master Label Stamped "Accepted," dated 09/10/2018

Acute Toxicity Review, dated 10/10/2017 Product Chemistry Review, dated 06/01/2018



AFIDOPYROPEN

GROUP

9D

**INSECTICIDE** 

# ACCEPTED

09/10/2018

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No.

7969-393

# **Ventigra®**

# Insecticide

[Optional text: ABN: Ventigra® Inscalis® Insecticide]

# For control of piercing and sucking insects in ornamentals and vegetable transplants

## **Active Ingredient:**

Afidopyropen, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl 

Contains 0.83 pound of afidopyropen per gallon, formulated as a dispersible concentrate.

EPA Reg. No. 7969-XXX

**EPA Est. No.** 

# **KEEP OUT OF REACH OF CHILDREN** CAUTION/PRECAUCION

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

See inside for complete First Aid, Precautionary Statements, Directions For Use, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.

#### **Net Contents:**

**BASF** Corporation 26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID			
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
If swallowed	<ul> <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 do so by a poison control center or doctor.</li> <li>DO NOT give anything to an unconscious person.</li> </ul>		
If on skin	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
LIOTI INF NUMBER			

#### **HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may contact BASF Corporation at 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.

# **Precautionary Statements**

## **Hazards to Humans and Domestic Animals**

**CAUTION.** Harmful if swallowed or inhaled. Avoid contact with skin or clothing. Avoid breathing spray mist. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

# **Personal Protective Equipment (PPE)**

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate or butyl rubber ≥ 14 mils or nitrile rubber ≥ 14 mils or neoprene rubber ≥ 14 mils or polyvinyl chloride (PVC) ≥ 14 mils or viton ≥ 14 mils, and
- Shoes plus socks

# **User Safety Requirements**

Follow the 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. Remove and wash contaminated clothing before reuse. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

#### **USER SAFETY RECOMMENDATIONS**

## Users should:

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

## **Environmental Hazards**

## **Terrestrial Use**

**DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate. **DO NOT** pour equipment washwaters or rinsate down into a natural drain or water body. **DO NOT** exceed the maximum seasonal use rate or the total number of applications of **Ventigra® insecticide** per season. To reduce the potential for developing insecticide-resistance, rotate to an insecticide with a different mode of action.

## **Non-target Organisms**

**Ventigra** is toxic to aquatic invertebrates. Drift and run-off from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** apply when weather conditions favor drift from treated areas.

Although Ventigra is not acutely toxic to bees, use at the maximum single application rate may have some short-term behavioral effects on adult bees, but is not expected to have long-term impacts on bees and overall colony health.

## **Ground Water Advisory**

Afidopyropen and a degradate of concern may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

## **Surface Water Advisory**

**Ventigra** may impact surface water quality due to run-off of rain water. This is especially true for poorly draining soils and soils with shallow ground water. **Ventigra** is classified as having a medium-high potential for reaching both surface water and aquatic sediment via run-off for several weeks to months after application. A well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs, as required under the **Directions For Use**, will reduce the potential for loading of afidopyropen from

run-off and sediment. Run-off of afidopyropen will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## **Physical or Chemical Hazards**

**DO NOT** mix or allow 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.

#### **Use Restrictions**

- Apply this product only as specified on this label.
- Ventigra® insecticide is intended for use by professional applicators.
- **Ventigra** is **NOT** for homeowner use.
- **Ventigra** is **NOT** for sale, distribution, or use in Nassau or Suffolk counties in New York state.
- **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 **Ventigra** applications at intervals shorter than 7 days.
- DO NOT apply to plants exhibiting symptoms of stress or injury, such as stunting, wilting, leaf burn or drop, or abnormal growth.
- **NOT** intended for vegetables grown to maturity in the greenhouse.
- A 30-day plant-back interval back is appropriate for all food crops not listed on this label.
- DO NOT tank mix Ventigra with:
  - Insect growth regulators
- Plant growth regulators
- Carbamate insecticides
- Organophosphate insecticides
- Pyrethroid insecticides
- For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

#### **Buffer Zones**

**Vegetative Buffer Zones.** Construct and maintain a minimum 10-foot vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; and estuarine/marine habitats). Only apply products containing afidopyropen onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat. For guidance, refer to the following publication for information on constructing

and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21pp. https://permanent.access.gpo.gov/lps9018/www.wcc.nrcs.usda.gov/water/quality/common/pestmgt/files/newconbuf.pdf

Buffer Zone for Ground Application (e.g., ground boom, overhead chemigation, or airblast). DO NOT apply within 10 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds; and estuarine/marine habitats).

**Buffer Zone for Aerial Application. DO NOT** apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds; and estuarine/marine habitats).

## 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), 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 **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 over long-sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate or butyl rubber ≥ 14 mils or nitrile rubber ≥ 14 mils or neoprene rubber ≥ 14 mils or polyvinyl chloride (PVC) ≥ 14 mils or viton ≥ 14 mils, and
- Shoes plus socks

#### NONAGRICULTURAL USE REQUIREMENTS

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

REENTRY: Keep children, pets, and unprotected persons out of treated area until sprays have dried.

#### STORAGE AND DISPOSAL

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

## **Pesticide Storage**

Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals. **DO NOT** store near food or feed.

## **Pesticide Disposal**

Wastes resulting from using this product must be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

# **Container Handling**

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) 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.

# In Case of Emergency

In case of large-scale spill of this product, call:

• CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

#### Steps to take if this material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

Ventigra® insecticide contains the active ingredient Inscalis® insecticide, common name afidopyropen. When used as directed, Ventigra controls aphids, mealybugs, and whiteflies, and suppresses certain species of mealybugs and scale insects (see Table 1. Ventigra® insecticide Use-specific Application Instructions). Ventigra can be used on ornamentals, landscape plants, on vegetable transplants for the home consumer market and in plant nurseries. Ventigra is primarily active through ingestion by the insect and demonstrates translaminar activity in the plant; it is not fully systemic. Thorough coverage of plant surfaces will result in the most effective control. Ventigra acts quickly to inhibit insect feeding.

**Ventigra** can be effectively used in Integrated Pest Management (IPM) and resistance management programs for the labeled pests in ornamentals and vegetable transplants.

#### **Mode of Action**

The active ingredient in **Ventigra** is classified by the IRAC (International Resistance Action Committee) as a target-site-of-action **Group 9D** insecticide, a chordotonal organ TRPV (Transient Receptor Potential Vanilloid) channel modulator. 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, **Ventigra** contains a **Group 9D** insecticide. Any insect population may contain individuals naturally resistant to **Ventigra** 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 Ventigra 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 Ventigra 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 Information**

**Ventigra® insecticide** can be used on ornamentals in the following use sites:

- Commercial and retail nurseries, field and container
- Commercial, public, and recreational gardens
- Commercial and residential landscapes, including golf courses, parks and recreation areas
- Forest tree and conifer nurseries and plantations
- Greenhouses, shadehouses, and lathhouses
- Interiorscapes

**Ventigra** insecticide can be used on the following ornamental plants:

- Annual bedding plants
- Perennials, herbaceous and woody
- Flowering and foliage plants
- Woody plants and trees

**Ventigra** may be applied to juvenile fruit and nut trees, vines, brambles, and bushberries grown in commercial ornamental production nurseries. Immature and/or inedible

fruits or nuts or berries may appear on the plant but are not intended for harvest or consumption.

**Ventigra** can be used on the following vegetable transplants for the home consumer market only, NOT for commercial vegetable production (greenhouse or field):

- Unless noted with an \*, use not permitted in California.
- Brassica stem and head: \*broccoli, Brussels sprouts,
   \*cabbage, Chinese cabbage (napa), cauliflower, and cultivars, varieties, and/or hybrids of these
- Cucurbit vegetables: chayote, Chinese waxgourd, citron melon, \*cucumber, gherkin, edible gourd (including Chinese okra, cucuzza, hechima, hyotan), Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (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, summer squash (including crookneck squash, scallop squash, straightneck squash, vegetable marrow, \*zucchini), winter squash (including butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), \*watermelon
- Fruiting vegetables: African eggplant; bush tomato; cocona; currant tomato; \*eggplant; garden huckleberry; goji berry; ground cherry; martynia; naranjilla; okra; pea eggplant; pepino; \*pepper, bell; pepper, nonbell; roselle; scarlet eggplant; sunberry; tomatillo; \*tomato; tree tomato; cultivars, varieties and hybrids of these commodities
- Leafy vegetables (except brassica vegetables): amaranth, leafy; arugula; aster, Indian; blackjack; broccoli raab; broccoli, Chinese; cabbage, Abyssinian; cabbage, seakale; Cat's Whiskers; cham-chwi, cham-na-mul; chervil, fresh leaves; Chinese cabbage, bok choy; chipilin; chrysanthemum, garland; cilantro, fresh leaves; collards; corn salad; including lamb's lettuce, and Italian corn salad; cosmos; cress, garden; cress, upland; dandelion; dang-gwi; dillweed, fresh leaves; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; Hanover salad, huauzontle; jute leaves; kale; \*lettuce, bitter, \*lettuce, head; \*lettuce, leaf (Romaine); maca; mizuna; mustard greens; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; radish, leaves; rape greens; rocket, wild; shepherd's purse; \*spinach; spinach, Malabar; spinach, New Zealand; spinach, tree; Swiss chard; tanier spinach; \*turnip greens; violet, Chinese; watercress; cultivars and/or hybrids of these
- Leaf petioles vegetables: cardoon; celery; celery,
   Chinese; fuki; rhubarb; udo; zuiki; cultivars, varieties, and hybrids of these commodities

## **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.

Ventigra® insecticide is rainfast one (1) hour after an application has dried. DO NOT apply if rain or an irrigation event is expected within one hour of application.

Ventigra demonstrates translaminar movement, but is not fully systemic.

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

For **Ventigra** to be most effective, apply at the first sign of insect pests and before the build-up of heavy pressure.

Application must be timed to coincide with locally recommended treatment thresholds for specific pest listed (see **Table 1. Ventigra® insecticide Use-specific Application Instructions**).

Water Volume. Ventigra is not systemic but has translaminar activity. Thorough and uniform coverage of the leaf surface and/or direct contact of the spray mixture with the target pest is required for control. Make foliar application using properly calibrated sprayers. BASF recommends 100 gallons/acre spray solution to ensure complete coverage of all leaf surfaces.

To provide optimum coverage of ornamentals with hard-towet foliage, an adjuvant may be used with **Ventigra** spray solution. Test the safety and compatibility of all adjuvants before use. Always read and follow the specific adjuvant label using the proper concentration of adjuvant to avoid plant injury.

## **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 on-target 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 verti-

**Terrain Precaution.** Local terrain can influence wind patterns. The applicator must be familiar with these patterns and understand their impact on drift.

**Sensitive Areas.** To ensure the protection of threatened or endangered species, it is important to maintain spray drift loadings below levels of concern for any area adjacent to

cal mixing.

the application site that is not excluded as possible habitat for these organisms.

# **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.

## **Additives and Tank Mixing Information**

Shake container well before use.

**Ventigra® insecticide** can be tank mixed with most recommended fungicides, insecticides, liquid fertilizers, adjuvants, and additives.

Under certain conditions or when recommended in

Table 1. Ventigra® insecticide Use-specific Application Instructions, adjuvants can improve the performance of Ventigra. However, all varieties and cultivars have not been tested with all possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced pest control, or crop injury can result from mixing Ventigra with other products.

Before using any tank mix (fungicides, insecticides, liquid fertilizers, adjuvants, and additives), test the combination on a small portion of the crop to be treated (including plant cultivars) to ensure that a phytotoxic response will not occur as a result of application.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Consult a BASF representative or local agricultural authorities for more information concerning additives.

## **Mixing Order**

Make sure each component is thoroughly mixed and suspended before adding tank mix partners. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Maintain constant agitation during application.

Shake Ventigra container well before use.

- 1. **Water** Begin by filling a thoroughly clean sprayer tank 1/2 to 3/4 full with clean water.
- 2. **Agitation** Maintain constant agitation throughout mixing and application.
- 3. **Inductor** If an inductor is used, rinse it thoroughly after each component has been added.

- 4. Products in PVA bags Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 5. **Water-soluble additives** (including dry and liquid fertilizers such as ammonium sulfate or urea ammonium nitrate)
- Water-dispersible products (such as Ventigra, dispersible concentrates, dry flowables, wettable powders, other suspension concentrates, or suspo-emulsions).
- 7. Water-soluble products
- 8. **Emulsifiable concentrates** (such as oil concentrates when applicable)
- Water-soluble additives (such as AMS or UAN when applicable)
- 10. Remaining quantity of water

**Table 1. Ventigra® insecticide Use-specific Application Instructions** 

Pest	Application Rate fl ozs/100 Gallon	Use Directions	
Aphids such as: Cotton/Melon aphid (Aphis spp.)	1.4	<b>Ventigra</b> is not a rescue treatment and should be applied at the onset of pest infestation.	
Green peach aphid (Myzus spp.) Rose aphid (Macrosiphum spp.)		For use in production of vegetable transplants for the home consumer market.	
Whiteflies such as: Greenhouse Whitefly ( <i>Trialeurodes</i> spp.) Silverleaf Whitefly ( <i>Bemisia</i> spp.)	4.8 to 7.0	<b>DO NOT</b> make applications at intervals shorter than 7 days.	
<b>Mealybugs</b> such as: Citrus mealybug ( <i>Planococcus</i> spp.) Long-tailed mealybug ( <i>Pseudococcus</i> spp.)	4.8 to 7.0	<b>DO NOT</b> apply more than the maximum seasonal use rate of 14 fl ozs of <b>Ventigra</b> (0.09 lb afidopyropen ai) per acre per crop season.	
Suppression of: Mexican mealybug (Phenacoccus gossypii)		For indoor greenhouse use on ornamental plants, <b>DO NOT</b> apply more than the maximum seasonal use rate of 17 fl ozs of <b>Ventigra</b> (0.11 lb	
Scale (nymphs and crawlers):	4.8 to 7.0	afidopyropen ai) per acre per crop season.	
Suppression of: Euonymus scale ( <i>Unaspis</i> spp.) Tea scale ( <i>Fiorinia</i> spp.)		<b>DO NOT</b> apply more than the annual maximum us rate of 42 fl ozs of <b>Ventigra</b> (0.27 lb afidopyropen per acre per calendar year.	
		Minimum spray carrier volume (per acre): 20 gallons for ground; 5.0 gallons for air.	
		Resistance Management. DO NOT make more than 2 sequential applications of <b>Ventigra</b> before using an effective insecticide with a different mode of action.	
		See <b>Table 3. Dilution Rate Conversion for Ventigra</b> for information on use rates and respective spray volumes.	
		When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.	

## **Plant Phytotoxicity**

**Ventigra® insecticide** has been applied to a wide variety of common ornamental plants without observed plant injury. Not all species, varieties, and cultivars have been tested for tolerance to **Ventigra**, possible tank mix combinations with **Ventigra**, pesticide treatments preceding or following those with **Ventigra**, and combinations of **Ventigra** with surfactants or adjuvants. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Because many cultivars within a plant species vary in tolerance to chemical applications and growing conditions, the grower must recognize these differences and test the product accordingly.

At a minimum, always test a small group of representative plants for tolerance to **Ventigra** under local growing conditions and before large-scale use. Grower assumes responsibility for testing species suitability under local growing conditions by treating a small number of plants at the specified rate. At a minimum, this should include evaluating treated plants for several weeks following treatment for possible injury or other effects. To the extent consistent with applicable law, by applying **Ventigra**, the user assumes responsibility for any crop damage or other liability associated with factors beyond the manufacturer's control, such as weather, presence of other materials, and manner or use of application. Plants with known potential for injury, such as Poinsettia at bract stage, are listed in **Table 2. Sensitive Plant Species**.

Table 2. Sensitive Plant Species

Plant Species NOT Tolerant to Ventigra	Coleus	Solenostemum spp. 'Rustic Orange'
	Ficus	Ficus benjamina
	Poinsettia - at bract formation	Euphorbia pulcherrima
Applications to flowers have occasionally shown discoloration to flowers	Impatiens	Impatiens walleriana
	Petunia	Petunia x hybrida, Petunia spp.

**Use caution in applying Ventigra:** Always treat a small area to ensure that plant injury will not occur during large-scale use.

Table 3. Dilution Rate Conversion for Ventigra

		•			
Use rate (fl ozs product/ 100 gal)	Spray Volume mL of product/ 2 gallons	Spray Volume mL of product/ 5 gallons	Spray Volume mL of product/ 10 gallons	Spray Volume mL of product/ 25 gallons	Spray Volume mL of product/ 50 gallons
1.4	0.8	2	4	10	20
4.8	2.8	7	14	35	70
6	3.6	9	18	45	90
7	4.2	10.5	21	52.5	105

## **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Inscalis and Ventigra are registered trademarks of BASF.

© 2018 BASF Corporation All rights reserved.

007969-00XXX.20160329e.NVA 2016-04-533-0072

BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709

