

Mimic™ 2LV

INSECTICIDE

ACTIVE INGREDIENT:

Tebufenozide:

Benzoic acid, 3,5-dimethyl-,1-(1,1-dimethylethyl)- 2-(4-ethylbenzoyl) hydrazide	24%
OTHER INGREDIENTS	76%
TOTAL	100%

Contains 2 lbs. active ingredient per gallon.

EPA Registration No.: 8033-113-73049

EPA Establishment No.: 5905-GA-01

(Lot No. Suffix 'KF')

EPA Establishment No.: 33762-IA-001

(Lot No. Suffix 'PG')

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KEEP OUT OF REACH OF CHILDREN CAUTION

1.0 PRECAUTIONARY STATEMENTS

1.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

Causes moderate eye irritation. Harmful if inhaled.
Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.

1.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

When handlers use closed systems, enclosed cabs or aircraft in a manner that meet the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

1.3 User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

1.4

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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 swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 day or night, for emergency treatment information.

1.5 Environmental Hazards

This product is toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Under some conditions, this chemical may also have a high potential for runoff into surface water for several weeks or months after application. Do not cultivate within 10 feet of aquatic areas so as to allow growth of a vegetative filter strip. Drift from applications of this pesticide is likely to result in damage to sensitive aquatic invertebrates in water bodies adjacent to treatment area.

For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, except under forest canopy when aerially applied to control forest pests. Do not contaminate water when disposing of equipment wash-waters and rinsate. Do not apply when weather conditions favor drift or runoff from areas treated.

CONTINUED

1.5 Environmental Hazards (Cont'd)

This pesticide demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

2.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 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
- Waterproof gloves
- Shoes plus socks

3.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry well-ventilated area, but not below 32°F.

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

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. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

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 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.

4.0 GENERAL INFORMATION

Mimic™ 2LV insecticide mimics the action of the natural insect hormone 20-hydroxyecdysone, the physiological inducer of the molting and metamorphosis process in insects. Mimic 2LV is highly active against most lepidopterous larvae while having practically no activity at typical use rates against other orders of insects. The selectivity of Mimic 2LV allows for the maintenance of the populations of beneficial and predatory insects which is a key element in integrated pest management programs. Mimic 2LV controls lepidopterous larvae through a novel mode-of-action by the induction of a premature lethal molt, which initiates within hours of ingestion of treated crop surfaces. Contact activity has also been observed in some insects. Actual death of the larvae will take several days to occur, although feeding by the insects generally ceases within 24 hours of ingestion.

Use Rate Determination

Carefully read, understand and follow label use rates, recommendations and restrictions. Apply the amount specified in the following table with properly calibrated aerial or ground spray equipment.

The low rates may be used for light infestations of the target lepidopterous species and the higher rates for moderate to heavy infestations. Mimic 2LV may be applied in either dilute or concentrate sprays so long as the application equipment is calibrated and adjusted to deliver thorough, uniform coverage. Use the specified amount of Mimic 2LV per acre regardless of spray volume used. Prepare only the amount of spray solution required to treat the measured acreage.

4.0 GENERAL INFORMATION (Cont'd)

Mixing and Compatibility

Fill the spray tank one-third to one-half full of clean water and slowly pour Mimic 2LV into the spray tank. Maintain agitation in the spray tank during mixing, loading and application. Triple-rinse empty container and add rinsate to spray tank.

Mimic 2LV is believed to be compatible with most commonly used agricultural fungicides, insecticides, growth regulators, foliar fertilizers and spray adjuvants. If in doubt, mix proportional amounts of all spray ingredients in a test vessel. Shake the mixture vigorously and allow it to stand for fifteen minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied.

Application Timing

The activity of Mimic 2LV is expressed primarily through ingestion by the target larvae. Consequently, the timing of application is dependent on the feeding behavior of the target pest. For internal feeding larvae, application must be made prior to the time that surface feeding occurs. For foliar or surface feeding larvae, application made while active feeding is occurring will be effective.

Re-application may be required to protect new flushes of foliage or rapidly expanding fruit. The re-application interval will vary depending on how rapidly the crop is growing and the generation time of the target pest. While Mimic 2LV is essentially equally effective against all instars, it is generally good practice to make applications to early instars to avoid the heavy damage that can be inflicted by later instar larvae.

For best results, begin applications when first signs of feeding damage or when threshold levels of moths, eggs or larvae occur. Consult the Cooperative Extension Service, or other qualified professional authorities, to determine the appropriate threshold for application in your area.

5.0 APPLICATION INSTRUCTIONS

Because Mimic 2LV must be ingested by the larvae, application must be in a manner that assures uniform and thorough coverage. Higher water volume and increased spray pressure generally provide better coverage. Operating an airblast sprayer at ground speeds greater than 2 mph and making applications in an alternate row middle pattern in tree crops and vines may result in less than satisfactory coverage and poor performance, particularly in conditions of high pest infestation levels, extremely large trees and/or dense foliage. Avoid application under conditions when uniform coverage cannot be assured or when excessive spray drift may occur. A minimum of six hours drying time is required between the completion of application and the onset of precipitation to ensure optimum performance.

Chemigation: Do not apply this product through any type of irrigation system.

Spray Adjuvants

The addition of agricultural adjuvants is not required to maximize the performance, coverage or weatherability of Mimic 2LV. The addition of spray adjuvants is not recommended.

Resistance Management

Any insect population may contain individuals that are naturally resistant to a specific pesticide; therefore, the use of any one insecticide against many consecutive generations of a pest can result in the development of resistance problems. To prevent or delay the development of resistance, Valent BioSciences recommends rotation of Mimic 2LV with insecticides of alternate modes of action and the utilization of Integrated Pest Management practices such as routine monitoring, the use of treatment thresholds to time applications and cultural and biological controls wherever possible. We further recommend that Mimic 2LV not be used on more than three consecutive generations of a pest. Since the development of resistance cannot be predicted, we suggest that you consult local or State Extension personnel or your local Valent BioSciences representative for resistance management guidance appropriate to your crop, locality and production practices.

Rotational Crop Restrictions

The following rotational crops may be planted at intervals defined below following the final application of Mimic 2LV at the recommended rates for a registered use.

Crop	Re-Cropping Interval
Crops for which tebufenozide use is registered	No restrictions
All other crops	Prohibited

Note: When using Mimic 2LV with other registered pesticides, always refer to rotational restrictions and precautions on the other product's label and comply with the most restrictive rotational guidelines.

Forests^{1,2}

Because Mimic 2LV must be ingested in order to be effective, it is essential that coverage is thorough and uniform. Higher carrier volumes and higher use rates are recommended for very large trees or dense stands and for heavy target pest infestations.

Ground Application: Hydraulic ground sprayers should be calibrated to deliver a minimum of 50 gallons per acre. For mist blowers or air blast sprayers, use a minimum of 10 gallons per acre.

Aerial Application: Make applications of Mimic 2LV in a minimum of 1 gallon per acre. For pests that feed in the top of the canopy, such as gypsy moths, use a minimum of 1/2 gallon per acre. Higher carrier volumes are recommended when environmental conditions are less than ideal for aerial applications.

¹ Forests include commercial, private and public forestland, conifer release sites, shelterbelts and windbreaks, and forest plantings.

² Not registered for use on forests in the state of California.

5.0 APPLICATION INSTRUCTIONS (Cont'd)

TARGET PESTS	APPLICATION RATE (fl. oz./acre)	APPLICATION TIMING	RESTRICTIONS
Bagworm (<i>Thyridopteryx ephemeraeformis</i>) Browntail Moth (<i>Euproctis chrysorrhoea</i>) Elm Spanworm (<i>Ennomos subsignaria</i>) Fall Cankerworm (<i>Alsophila pometaria</i>) Fall Webworm (<i>Hyphantria cunea</i>) Gypsy Moth (<i>Lymantria dispar</i>) Hemlock Looper (<i>Chambdina fiscellaria</i>) Jackpine Budworm (<i>Choristoneura pinus</i>) Puss Caterpillar (<i>Megalopyge opercularis</i>) Tent Caterpillar Forest, Eastern, Western (<i>Malacosoma disstria</i> , <i>Malacosoma americanum</i> , <i>Malacosoma californicum</i>) Zimmerman Pine Moth (<i>Dioryctria zimmermani</i>)	4.0 to 8.0 (0.06 to 0.12 lb. a.i./acre)	Apply to early instar (1st, 2nd, or 3rd) larvae. In general, foliage development should be a minimum of 20%.	Do not apply more than 16 fluid ounces per year. Uniform coverage of the foliage is essential to provide maximum protection from defoliation and reduction of egg mass deposition.
Spruce Budworm (<i>Choristoneura fumiferana</i> and <i>C. occidentalis</i>) Tussock Moth (<i>Dasychira pinicola</i> , <i>Lophocampa maculata</i> , <i>Orgyia pseudotsugata</i> , <i>O. vetusta</i>)	4.0 to 8.0 (0.06 to 0.12 lb. a.i./acre)	Make applications to 4th to 5th instar larvae that are actively feeding on foliage or are feeding outside the candle caps.	
Pine Tip Moth (<i>Rhyacionia frustrana</i> , <i>R. neomexicana</i> , <i>R. buoliana</i> , <i>R. rigidana</i> , <i>R. subtropica</i>)	8.0 (0.12 lb. a.i./acre)	Apply to early instar (1st to 2nd) larvae after each new foliage flush, in general, at approximately 25% shoot expansion.	

6.0 TERMS AND CONDITIONS OF USE

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid.

Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

Warranty Disclaimer

Valent BioSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Valent BioSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all

of which are beyond the control of Valent BioSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Valent BioSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

Valent BioSciences shall not be liable for losses or damages resulting from handling or use of this product unless Valent BioSciences is promptly notified of such loss or damage in writing. In no case shall Valent BioSciences be liable for consequential or incidental damages or losses.

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