

70051-60

4-8-2004

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This Master label bears directions for Agricultural, Greenhouse, Home and Garden uses

# Javelin®

## Biological Insecticide

For Control of Insect Pests of Vegetables, Fruit and Field Crops

**ACTIVE INGREDIENT:**

*Bacillus thuringiensis*, subspecies *kurstaki* strain SA-11 solids,  
spores and insecticidal toxins\* 17.8%

**OTHER INGREDIENTS:** 82.2%

**TOTAL** 100.0%

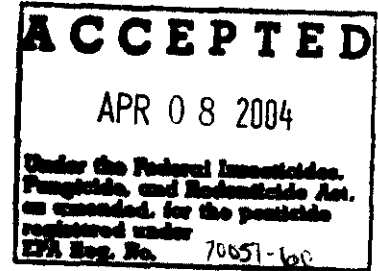
\*The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

### KEEP OUT OF REACH OF CHILDREN CAUTION

See side panel for additional precautionary statements

EPA Reg. No. 70051-60  
EPA Est. No. 70051-CA-001

Manufactured by  
Certis USA, L.L.C.  
9145 Guilford Road, Suite 175  
Columbia, MD 21046



**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION**

Harmful if inhaled or absorbed through the skin. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause an allergic reaction in some individuals. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**FIRST AID**

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**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.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

**Personal Protective Equipment:**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves

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- Shoes plus socks
- Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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.

**Engineering Controls Statements:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (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.

**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.
- 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**

For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Aerial application is permissible where tree canopy exists.

**DIRECTIONS FOR USE**

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

Unless specifically stated, do not apply this product through any type of irrigation system.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product in a way that will contact worker or other persons, either directly or through drift. Only protected handlers may be in the area during application.

**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

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## GENERAL USE INSTRUCTIONS

Javelin® Biological Insecticide is a biological insecticide specific for the control of lepidopterous larvae (see Application Rates section).

Javelin® Biological Insecticide attacks the larval gut and must be ingested by the insect to be effective.

Since the active ingredient, *Bacillus thuringiensis*, is exempt from tolerance requirements, Javelin® Biological Insecticide may be applied up to and on the day of harvest.

### Mixing

Always shake or stir Javelin® Biological Insecticide thoroughly before use. Add application rate amount of Javelin® Biological Insecticide to ¼ volume of required spray before filling tank. Maintain agitation. Do not allow diluted sprays to remain in the tank for more than 48 hours. JAVELIN® Biological Insecticide is formulated to provide desirable coverage and adherence to leaf surfaces. Additional adjuvants, spreaders, or stickers may be added to improve product performance, especially under heavy dew or rainy conditions. Combinations with commonly used insecticides, fungicides, or other spray tank adjuvants are generally not deleterious to JAVELIN® Biological Insecticide if the mix is used promptly. Before mixing in the spray tank, it is advisable to test physical compatibility by mixing all components in a small container in proportionate quantities. Tank mix instructions are for use only in states where the tank mix product and application site are registered. Read and follow all label directions for use for other pesticides used as tank mix partners with Javelin® Biological Insecticide for specific rates, application timing, and precautions.

### Application Instructions

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

### Ground Application

Unless otherwise stated, use the application rate amount of Javelin® Biological Insecticide in a minimum of 20 gallons of water per acre depending on type of crop and requirements of state regulations.

### Aerial Application

Use application rate amount of Javelin® Biological Insecticide in at least 5 gallons of water per acre. Applications at higher water volumes have demonstrated improved control of targeted pests. Apply early morning or evening when air is calm.

For most consistent control, apply at first sign of newly hatched worms (1st and 2nd instar larvae).

Reapply as necessary under a pest management program that includes close scouting.

If rapid knockdown of heavy worm or non-lepidopterous populations is necessary, include an effective contact insecticide in combination with Javelin® Biological Insecticide.

For heavy worm infestations, use the higher Javelin® Biological Insecticide rate. During situations of dense foliage and/or rapid growth, increasing water carrier volumes will provide better crop coverage and improve Javelin® Biological Insecticide performance.



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|--|--|--|---|
| <p><b>Avocados</b></p>   | <p>Looper<br/>Orange Tortrix<br/>Omnivorous Leafroller<br/><br/>Amorbia</p>  | <p>2<br/>1-2<br/>1-2<br/><br/>2</p>                                  | <p>Apply as necessary to maintain control. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds.<br/>(Amorbia [Mexican leafroller] is suppressed only).</p>                   |
| <p><b>Bananas</b></p>  | <p>Banana Skipper</p>  | <p>1-2</p>   | <p>Hawaii only. Use calibrated ground equipment with adequate water to apply to point of runoff.</p>  |
| <p><b>Citrus</b></p>   | <p>Citrus Cutworm<br/>Fruittree Leafroller<br/>Orangedog<br/><br/>Amorbia</p>  | <p>1-2<br/>1-2<br/>½-1<br/><br/>2</p>                                | <p>Use 50-600 gallons of water per acre when using ground equipment and 10 gallons of water minimum per acre by air.<br/>(Amorbia [Mexican leafroller] is suppressed only.)</p>   |
| <p><b>Blueberries, Caneberries, Currants, Kiwi</b></p>   | <p>Blueberry Leafroller<br/>Cherry Fruitworm<br/>Fruittree Leafroller<br/>Gypsy Moth<br/>Green Fruitworm<br/>Looper<br/>Orange Tortrix<br/>Omnivorous Leafroller</p> | <p>1-2<br/>½-1<br/>1-2<br/>1-2<br/>½-1<br/>¾-1 ½<br/>1-2<br/>1-2</p> | <p>Apply by ground equipment only. Begin treatment as soon as possible after hatching. For leafrollers, apply before larvae are protected by leaf folds.</p>  |
| <p><b>Grapes</b></p>   | <p>Grape Leafroller<br/>Grapeleaf Skeletonizer<br/>Omnivorous Leafroller<br/>Orange Tortrix<br/>Saltmarsh Caterpillar</p>  | <p>1-2<br/>1-2<br/>1-2<br/>1-2<br/>1-2</p>                           | <p>Apply by ground equipment in up to 200 gallons total spray per acre to obtain thorough coverage of leaf surfaces. Start treating as soon as possible after hatching and before larvae are protected by leaf folds.</p> |
| <p><b>Almonds, Apricots, Cherries, Filberts, Nectarines, Peaches, Pecans, Persimmons, Plums, Pomegranates, Prunes, Walnuts</b></p> | <p>Fall Webworm<br/>Filbert Webworm<br/>Omnivorous Leafroller<br/>Citrus Cutworm<br/>Redhumped Caterpillar<br/>Tent Caterpillar</p>                                  | <p>1-2<br/>1-2<br/>1-2<br/>1-2<br/>1-2<br/>1-2</p>                   | <p>For leafrollers, start treating as soon as possible after hatching and before larvae are protected by leaf folds.<br/>Apply when caterpillars are actively feeding (2nd-4th instar).</p>                               |
| <p><b>Melons (Also see Vegetables)</b></p>   | <p>Rindworm Complex</p>  | <p>1-2</p>   | <p>Apply at first sign of hatch before larvae enter fruit. Repeat as necessary to maintain control</p>  |
| <p><b>Strawberries</b></p>   | <p>Armyworm<br/>Gypsy Moth<br/>Looper<br/>Roughskinned Cutworm</p>   | <p>2<br/>1-2<br/>¾-1 ½<br/>1-2</p>                                   | <p>Apply as necessary to maintain control. Use 20 gallons water minimum per acre when using ground equipment and 5 gallons water minimum per acre by aircraft.</p>  |

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|  |  |                            | In a tank mix with contact insecticides, rates as low as 1 qt. of Javelin® Biological Insecticide may be used for the control of armyworm.   |
| <b>FIELD CROPS</b>   |  |                            |  |
| <b>Alfalfa (Hay and Seed), Sudan Grass, Hay Crops &amp; Other Forage Crops</b> | Alfalfa Caterpillar<br>Armyworm<br>Looper  | ½-1<br>1 ½-2<br>1-1 ½      | Under conditions of rapid plant growth and rapidly increasing armyworm populations (10 worms or greater per 180° sweep) use the highest rate. Against heterogenous worm populations, where 4th and 5th instars are present, and continuous egg laying is occurring, applications may provide variable control. Under these conditions, the addition of a contact insecticide in combination with Javelin® Biological Insecticide is recommended. The addition of a spreader sticker to Javelin® Biological Insecticide may provide improved performance. |
| <b>Small Grains</b>  | Armyworm   | 1 ½-2                      | Apply as necessary to maintain control.  |
| <b>Hops</b>  | Looper<br>Omiverous Leaf-tier<br>Spotted Cutworm<br>Oblique Banded<br>Leafroller | ¾-1 ½<br>1-2<br>1-2<br>1-2 | Apply as necessary to maintain control. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds.  |
| <b>Canola</b>  | Armyworm<br>Diamondback Moth   | 1-2<br>1                   | Apply as necessary to maintain control.  |
| <b>Field Corn, Pop Corn, Seed Corn</b>   | Armyworm<br><br>Southwester Corn Borer<br>European Corn Borer*                   | 1 ½-2<br><br>2<br>2        | Make initial application when economically damaging populations exist. Repeat as necessary to maintain control. Applications must be made to early instars prior to entering the ear or plant.<br><br>Aids in control.<br><br>*Also see Chemigation  |

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|--|--|---|---|
| Jojoba   | Looper ( <i>Anacamptodes</i> spp.)   | 1-2   | Apply in a minimum of 50 gallons of water per acre by ground equipment or a minimum of 10 gallons of water by aerial equipment. Thorough coverage of foliage is essential and dictates the minimum spray volumes necessary. |
| Dry Beans, Peas, Lentils, Mint, Peanuts, Rice, Safflower, Soybeans, Sugar Beets, Sunflower | Armyworm<br>Green Cloverworm<br>Looper<br>Salt Marsh Caterpillar<br>Velvetbean Caterpillar<br><i>Helicoverpa</i> spp.<br>( <i>Heliothis</i> spp.)<br>Cutworm | 1-2<br>½-1<br>¾-1 ½<br>1-2<br>½-1<br>2<br>1-2 | Apply as necessary to maintain control.<br><br><br><br><br><br>Suppression only   |
| Tobacco  | Looper<br>Tobacco Hornworm<br>Tobacco Budworm  | ¾-1 ½<br>½-1<br>2                             | Apply as necessary to maintain control.<br>Suppression only   |

**APPLICATION RATES, CONT.**

**COTTON- Except Arizona and California**

| TIMING | INSECT                      | RATE QTS./ACRE | ADDITIONAL INSTRUCTIONS   |
|--------|-----------------------------|----------------|---|
| Early  | Bollworm<br>Tobacco Budworm | 1-2            | For early season management of <i>Heliothis</i> species. Initiate applications when 50% of plants are at pinhead square cotton stage, independent of <i>Heliothis</i> egg and larval counts, or at 1st egg lay, whichever occurs earlier. Continue applications on 5-day spray interval up to synthetic pyrethroid spray window. For added control of <i>Heliothis</i> , tank mixing of Javelin® Biological Insecticide with a labeled ovicide, such as, amitraz (0.125-0.25 lb. a.i./acre), methomyl (0.125 lb. a.i./acre), profenofos (0.25 lb. a.i./acre), or thiodicarb (0.125-0.25 lb. a.i./acre) is recommended. Read and follow all directions for use, precautions and restrictions on tank mix product labels. |

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**COTTON- California and Arizona**

| TIMING               | INSECT                 | RATE<br>QTS./ACRE  | ADDITIONAL<br>INSTRUCTIONS  |
|----------------------|------------------------|--|---|
| Early and Mid-Season | Armyworm               | 2  | Repeat as necessary throughout season to maintain control. If egg laying frequency indicates future moderate to heavy worm populations, time application spray to coincide with the 2nd instar larvae. During periods of high temperatures, worms will progress to the 3rd instar very rapidly and early application timing is necessary for control. To be effective, Javelin® Biological Insecticide spray must be deposited at the larval feeding site. When plant cover is dense and worms are feeding in the lower 2/3 portion of the plant, aerial application of Javelin® Biological Insecticide may not provide adequate control. |
|                      | Cotton Leaf Perforator | 1-2  |   |
|                      | Cotton Leafworm        | 1-2  |   |
|                      | Looper                 | 1-2  |   |
|                      | Saltmarsh Caterpillar  | 1-2  |   |
|                      | Bollworm               | 1-2  |   |
| Tobacco Budworm      | 1-2                    | For the suppression of light to moderate infestations, apply at first sign of egg-laying or newly-hatched worms (1st instar larvae). |   |



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| CROP  | INSECT                     | RATE QTS./AC RE | ADDITIONAL INSTRUCTIONS  |
|---|----------------------------|-----------------|--|
| SHADE TREES AND ORNAMENTALS (Including Roses) | Spring and Fall Cankerworm | 1/2-1           | Apply when leaf expansion reaches 40% to 50% as infestation warrants. If eggs hatch over a long period of time, or if reinfestation occurs, spray about 14 days after first application. |
|   | Elm Spanworm               | 1/2-1           |  |
|   | Tent Caterpillar           | 1/2-1           |  |
|   | Gypsy Moth                 | 1-2             |  |
|   | Spruce Budworm             | 1-2             | Apply when most larvae are 3rd-4 <sup>th</sup> instar. Also consider the opening of the bud cap to ensure foliage exposure.  |
|   | Jackpine Budworm           | 1/2-1           | Apply after eggs have hatched and early instar larvae are feeding on exposed foliage   |
|   | Douglas Fir Tussock Moth   | 1/2-1           |  |
|   | Bagworm                    | 1/2-1           |  |
|   | California Oak Moth        | 1/2-1           |  |
|   | Western Tussock Moth       | 1/2-1           |  |
| Fruittree Leafroller                          | 1/2-1                      |                 |  |
| Mimosa Webworm                                | 1/2-1                      |                 |  |
| Redhumped Caterpillar                         | 1/4-3/4                    |                 |  |
| Fall Webworm                                  | 1/4-1/2                    |                 |  |
| Armyworm                                      | 2                          |                 |  |
| Turf and Grass Seed Production                | Tropic Sod webworm         | 2               | Repeat as necessary throughout season to maintain control.   |
|   | Armyworm                   | 2               |  |
|   | Sod webworm                | 2               |  |

**APPLICATION RATES, CONT.**

**STORED SOYBEANS, GRAINS (Indian Meal Moth, Almond Moth)**

To control and prevent Indian Meal Moth and Almond Moth infestations of stored soybeans and grains, prepare a spray mixture which includes 1 gallon of water for every 6 fluid oz. of Javelin® Biological Insecticide. The spray mixture may be applied either by treating the top 4 inches of grain as it is being augered into storage (applying 0.6 pint of mixture per bushel in the grain stream), or by treating the surface of grain after it is in the bin. The following table can be used as a guide in determining the total amount of Javelin® Biological Insecticide needed according to bin diameter or the number of bushels to be treated.

| Bin Diameter (ft.) | Surface Area (sq. ft.) | Bushels (to 4 in. depth) | JAVELIN Rate fluid oz. |
|--------------------|------------------------|--------------------------|------------------------|
| 8                  | 50                     | 13                       | 3                      |
| 12                 | 113                    | 30                       | 7                      |
| 16                 | 201                    | 53                       | 12                     |
| 20                 | 314                    | 84                       | 17                     |
| 24                 | 452                    | 120                      | 26                     |
| 28                 | 615                    | 163                      | 36                     |
| 32                 | 804                    | 214                      | 46                     |

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To insure thorough coverage when making applications to the grain surface after it is in the bin, apply spray mixture in three (3) applications. Mix the grain with a scoop or rake to a depth of four (4) inches after each application.

Stored grain may be treated anytime, but for best results, treat grain at the time it is placed into storage or shortly thereafter, or in the early spring prior to egg-laying. Full season control is normally experienced. Re-treat only if reinfestation occurs.

For the protection of bagged grain, apply spray mixture to entire grain mass, and mix thoroughly prior to bagging. Javelin® Biological Insecticide at ¼ quart per 10 gallons of water will treat approximately 100 bushels.

Treated grain may be used at any time after treatment.

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**GREENHOUSE APPLICATION**

Javelin® Biological Insecticide may also be used in the greenhouse and on flowers at a rate of 1-2 quarts per 100 gallons of water for control of listed insects on this label.

**APPLICATION INSTRUCTIONS**

**Rate-** For control of European Corn Borer and suppression of Southwestern Corn Borer using center-pivot irrigation equipment, apply a mixture of 2 quarts of Javelin per acre and 1 quart of insectigation oil per acre.

**Insectigation Oil and Javelin Mixture-** Javelin should be added to the tank first, then the recommended amount of oil. (See instructions for diluted application with insectigation oil).

For best performance, make application in 0.5 inch/acre or less.

Filter size should allow for smooth flow of Javelin from the tank to injector pump (18-20 mesh).

**ATTENTION**

**INSTRUCTIONS FOR DILUTED APPLICATION WITH INSECTIGATION OIL**

1. Pre-clean and flush nurse tank, lines, screen canister and pump with insectigation oil until they are water-free.
2. Use a 20 mesh screen or larger. A finer mesh screen may prevent the smooth flow of Javelin from the nurse tank into the pump.
3. Calibrate with insectigation oil.
4. Begin agitation
5. Pour Javelin into tank first and then add the insectigation oil.
6. Maintain agitation during application.
  - a. If you stop injecting the Javelin -oil mix due to rain mechanical failure or etc., be sure to mix well and re-agitate uniformly before continuing application.
7. When you rinse the Javelin container, do so with insectigation oil. Avoid water contamination for oil-diluted applications.
8. Fine-tune calibration.
9. When application is complete, thoroughly flush the injection system and sprinkler system with insectigation oil.

Check label for Federal Chemigation requirements. Follow State and Local requirements for chemigation.

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## CHEMIGATION

### Center Pivot Irrigation Application for European and Southwestern Corn Borer in Field Corn (Not for use in California)

The active ingredient in Javelin® Biological Insecticide will settle in the tank and injections lines; adequate agitation must be provided before and during the injection period. Use only in systems that apply uniformly and have appropriate check valves. Do not apply when wind speed favors drift beyond the area intended for treatment. When application is complete, thoroughly flush the injection system and sprinkler lines.

#### GENERAL INFORMATION:

Apply this product only through sprinkler (center pivot) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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, 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, discharge the water from the public water system 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.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

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.

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**SPRINKLER CHEMIGATION:**

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply when soils are moderately moist. Use volumes that thoroughly wet the foliage and/or soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage**

Store in a cool place. Activity may be impaired by storage at prolonged temperatures above 90° F. Protect from freezing

**Pesticide Disposal**

Wastes resulting from the use of this product must be disposed of on site or at an approved waste facility.

**Container Disposal**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY**

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

**REGISTERED TRADEMARKS**

JAVELIN® WG is a registered trademark of Certis USA, L.L.C.

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Homeowner label

**Javelin®**

**Biological Insecticide**

Controls Worms and Caterpillars on Fruits, Vegetables, Ornamentals, and Shade Trees

**ACTIVE INGREDIENT:**

*Bacillus thuringiensis*, subspecies *kurstaki* strain SA-11 solids,  
spores and insecticidal toxins\* 17.8%

**OTHER INGREDIENTS:** 82.2%

**TOTAL** 100.0%

\*The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See side panel for additional precautionary statements

EPA Reg. No. 70051-60  
EPA Est. No. 70051-CA-001

Manufactured by  
Certis USA, L.L.C.  
9145 Guilford Road, Suite 175  
Columbia, MD 21046

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION**

Harmful if inhaled or absorbed through the skin. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause an allergic reaction in some individuals. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**FIRST AID**

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**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.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

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### **DIRECTIONS FOR USE**

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

Unless specifically stated, do not apply this product through any type of irrigation system.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### **GENERAL USE INSTRUCTIONS**

Apply Javelin® Biological Insecticide when worms or caterpillars are first noticed, then repeat at 5- to 7-day intervals while they are active. Apply more frequently to control heavy infestations. Apply thoroughly to top and bottom of foliage. Re-apply after heavy rains.

Javelin® Biological Insecticide must be eaten by worms or caterpillars to be effective. After ingesting the insecticide, they immediately stop feeding, though they may otherwise appear to be unaffected for several days. Best results are obtained by treatments when worms are small; they must be actively feeding on treated, exposed foliage. You may apply Javelin up to and on the day of harvest..

### **APPLICATION INSTRUCTIONS:**

Always shake or stir Javelin® Biological Insecticide thoroughly before use. Partially fill sprayer with water before adding application rate amount of product, then mix in product thoroughly and add remaining amount of water.

Spray leaf surfaces thoroughly—top and bottom—for complete control. Agitate regularly while spraying. Use all of spray mixture within 24 hours.

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**APPLICATION RATES  
1.5-3.0 TEASPOONS/GALLON**

VEGETABLES:

TREATS:

- Asparagus
- Beans (Green, Lima ,Mung)
- Broccoli
- Brussels Sprouts
- Cabbage
- Cardoon
- Carrots
- Cauliflower
- Celeriac
- Celery
- Chick Peas
- Chinese Broccoli
- Chinese Cabbage
- Collards
- Cucumbers
- Dry Bulb Onions
- Eggplants
- Garlic
- Green Onions
- Greens (Dandelion, Turnip, Mustard, Beet, China)
- Herbs (Basil, Cilantro, Dill, Oregano, Thyme, etc.)
- Horseradish
- Kale

- Kohl Rabi
- Leeks
- Lettuce (Endive, Romaine, Head Lettuce, Escarole, Butter Crunch, Leaf etc.)
- Melons (Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc.)
- Okra
- Onions
- Parsley
- Parsnips
- Peas
- Peppers
- Potatoes
- Pumpkins
- Radishes
- Rutabaga
- Salsify
- Spinach
- Squash (Summer and Winter)
- Sweet Corn
- Sweet Potatoes
- Swiss Chard
- Table Beets
- Tomatoes
- Turnip Root
- Watercress \*\*For Watercress only: Spray only when there is no standing water in bed.
- Yams

CONTROLS:

- Armyworm
- Diamondback moth
- European corn borer
- Green Cloverworm
- Hornworm
- Imported cabbageworm
- Loopers
- Salt marsh caterpillar

FRUITS & NUTS

Treats:

- Almonds
- Apples
- Apricots
- Avocados
- Bananas
- Blueberries
- Caneberries
- Cherries
- Citrus
- Currents
- Filberts

- Grapes
- Kiwi
- Melons
- Nectarines
- Peaches
- Pears
- Pecans
- Persimmons
- Plums
- Pomegranate
- Prunes
- Strawberries
- Walnuts

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Controls:

Armyworm  
Banana skipper (Hawaii only)  
Blueberry leafroller  
Cherry fruitworm  
Citrus cutworm  
Fall webworm  
Filbert webworm  
Fruittree leafroller  
Grape leafroller  
Grapeleaf skeletonizers  
Green fruitworm

Gypsy moth  
Loopers  
Omnivorous leafroller  
Orangedog  
Orange tortrix  
Redbanded leafroller  
Redhumped caterpillar  
Rindworm complex  
Roughskinned cutworm  
Tent caterpillar  
Tufted apple Budmoth  
Saltmarsh caterpillar  
Variegated leafroller

SHADE TREES, ORNAMENTALS, FLOWERS, AND ROSES:

Controls:

Armyworm  
Bagworm  
California oak moth  
Spring & fall cankerworm  
Cutworm  
Douglas fir tussock moth  
Elm spanworm  
Fall webworm  
Fruittree leafroller  
Gypsy moth  
Jackpine budworm  
Mimosa webworm  
Redhumped caterpillar  
Spruce budworm  
Tent caterpillar  
Western tussock moth

**STORAGE & DISPOSAL**

Pesticide Storage

Store in a cool place. Activity may be impaired by storage at prolonged temperatures above 90° F. Protect from freezing

Disposal Instructions:

**If empty:** Do not reuse this container. Place in trash or offer for recycling if available.

**If partly filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

**WARRANTY**

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. **NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.**

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