



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 16, 2021

Kasia O'Donnell
Regulatory Affairs Associate
Certis USA, LLC
9145 Guilford Road
Suite 175
Columbia, MD 21046

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – Add Alternate Brand Names to the Product Registration
Product Name: Javelin WG
EPA Registration Number: 70051-66
Application Date: 12/09/2021
Action Code Case Number: 00337173

Dear Kasia O'Donnell:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The alternate brand names Able WG, Javelin 6.4 WG, PRIMIAL, Dolphin, Bio-Bacillus, Delfin Garden, Anti Rups, RUPSVRIJ, Anti pyrale du buis, Delfin jardin, Delfin Dual, Delfin 32 WG, and Delphin have been added to the product's records. You must submit one (1) copy of the final printed labeling with the modifications.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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 EPA 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 Assurance.

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If you have any questions, please contact Andrew Queen by phone at 202-566-1539 or via email at queen.andrew@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Alexandra Boukedes".

Alexandra Boukedes, Risk Manager
Microbial Pesticides Branch
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs

Enclosure: Stamped Label

Javelin® WG

BIOLOGICAL INSECTICIDE

{Alternate Brand Names: See Last Page for List of ABNs}

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

 FOR ORGANIC PRODUCTION



ACTIVE INGREDIENT:

Bacillus thuringiensis, subspecies *kurstaki* strain SA-11 solids, spores,
and Lepidopteran active toxins† 85.0%

OTHER INGREDIENTS: 15.0%

TOTAL 100.0%

†Potency: Minimum of 24 Billion Spodoptera Units (BSU) per pound of product. The percentage active ingredient does not indicate product performance and potency measurements are not federally standardized.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

{Packaging specific referral statement may appear here, as needed. See statements on last page of label}

EPA REG. NO.: 70051-66
EPA EST. NO.:

Lot No.
Net Contents:

Manufactured by:
Certis USA LLC
9145 Guilford Road, Suite 175
Columbia, MD 21046



NOTIFICATION

70051-66

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

12/16/2021

[ESL xxxxxxxx]
[revxxxxxxxx]

FIRST AID
<p>If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.</p> <p>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.</p> <p>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.</p>
Hotline Number:
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.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash 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. Harmful if inhaled. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Mixer/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any R, or P filter; OR a NIOSH-approved powered air- purifying respirator with an HE filter. (Repeated exposures 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 [40CFR 170.607 (d) and (6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- 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 cleaning equipment or disposing of equipment washwaters.

This product must not be applied aerially within 1/4 mile of any habitats of endangered or threatened Lepidoptera. No manual application can be made within 300 ft. of any threatened or endangered Lepidoptera.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Prosper with pesticides by using them properly! Read and follow label directions. This labeling must be in the possession of the user at the time of the pesticide 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 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 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

APPLICATION DIRECTIONS

(Javelin® WG) (This product) is a biological insecticide for the control of lepidopterous larvae (see Application Rates section). (Javelin® WG) (This product) attacks the larval gut and must be ingested by the insect to be effective. (Javelin® WG) (This product) may be applied up to and on the day of harvest.

For most consistent control, apply at first sign of newly hatched worms (1st and 2nd instar larvae). Instructions for specific crops are located in the ADDITIONAL INSTRUCTION sections under APPLICATION RATES.

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® WG) (this product).

For heavy worm infestations, use the higher Javelin® WG rate. During situations of dense foliage and/or rapid growth, increasing water carrier volumes will provide better crop coverage and improve (Javelin® WG) (this product's) performance.

Tank mix instructions are for use only in states where the tank mix product and application site are registered. Read and follow the most restrictive of the labeling limitations and precautions of all products used in mixtures.

Mixing

Fill spray or mixing tank $\frac{3}{4}$ full of water. Turn on agitation and pour (Javelin® WG) (this product) into water while maintaining continuous agitation. Add other spray material (if any) and add balance of water. Agitate as necessary to maintain suspension. Do not allow diluted sprays to remain in the tank for more than 48 hours. (Javelin® WG) (This product) 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® WG) (this product) if the mix is used promptly. Before mixing in the spray tank, it is advisable to test physical compatibility by mixing all the components in a small container in proportionate quantities.

Ground Application

Unless otherwise stated, use the application rate amount of (Javelin® WG) (this product) in a minimum of 20 gallons of water per acre depending on type of crop and requirements of state regulations. If lower volumes are used, proper application equipment must be used to insure adequate coverage. Thorough and uniform crop coverage is required for adequate insect control.

Aerial Application

Use application rate amount of (Javelin® WG) (this product) in at least 3 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.

Spray Drift

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.

INSECTS CONTROLLED

When used as directed, (Javelin® WG) (this product) will control the following insects:

Alfalfa caterpillar	Fall cankerworm	Peach twig borer
Almond moth	Fall webworm	Pecan nut casebearer
Armyworm	Filbert webworm	Redbanded leafroller
Artichoke plume moth	Fruittree leafroller	Redhumped caterpillar
Bagworm	Grape leaffolder	Rindworm complex
Banana moth	Grape berry moth	Roughskinned cutworm
Banana skipper	Grapeleaf skeletonizer	Saltmarsh caterpillar
Bertha armyworm	Green cloverworm	Sod webworm
Blueberry leafrollers	Green fruitworm	Southwestern corn borer
Blueberry spanworm	Gypsy moth	Spotted cutworm
Bollworm	<i>Helicoverpa</i> spp.	Spring cankerworm
California oak moth	<i>Heliothis</i> spp.	Spruce budworm
Cherry fruitworm	Hornworms	Tent caterpillar
Citrus cutworm	Imported cabbageworm	Tobacco budworm
Codling moth	Jack pine budworm	Tobacco hornworm
Cotton leafperforator	Light brown apple moth	Tomato pinworm
Cotton leafworm	Loopers	Tropical sod webworm
Cutworm	Mimosa webworm	Tufted apple bud moth
Diamondback moth	Naval orangeworm	Variiegated leafroller
Douglas-fir tussock moth	Obliquebanded leafroller	Velvetbean caterpillar
Elm spanworm	Omnivorous leafroller	Western tussock moth
European corn borer	Omnivorous leaftier	
European grapevine moth	Orange tortrix	
European pepper moth	Orangedog	
	Oriental fruit moth	
	Pandemis leafroller	

APPLICATION TIMING, RATES, CROPS, AND PESTS

Sprays should target small larvae, from newly-hatched to 2nd instar. High label rates may be required to control larger larvae. Continue applying as part of a normal spray program until pest is adequately controlled. Apply when caterpillars are actively feeding. To be effective, Javelin® WG spray must be deposited at the larval feeding site. (Javelin® WG) (This product) can be applied by ground or air in water sufficient to insure thorough and even coverage. Thorough and uniform crop coverage is required for adequate insect control. Applications at higher water volumes have demonstrated improved control of targeted pests. Early morning or evening applications, when air is calm, are generally best for aerial applications.

For Light Brown Apple Moth: Apply when newly hatched larvae appear and before leaves are rolled or webbing is significant.

For Banana Moth: Drench bark to newly emergent shoots following pruning or apply to susceptible plant tissues when Banana Moth larvae are active.

For European Grapevine Moth: Apply at blackhead egg stage or when larvae are newly hatched before leaves are rolled, or larvae have entered fruit.

For European Pepper Moth: Begin applications at egg lay and continue at 3-5 day intervals throughout larval feeding period.

RATE SELECTION CONSIDERATIONS

Application rates are typically given as a range:

- **Lower rate ranges** may be desired when tank mixing with contact insecticides labeled for worm control or under conditions of light worm infestations or when uniformly small worms are present.
- **Medium rate ranges** may be desired when multiple worm life stages are present, continuous egg hatches are occurring or young or light armyworm infestations exist.
- **Upper rate ranges** may be desired for heavy worm infestations, mature (larger) worms or for moderate to heavy infestations of armyworm, bollworm, or other difficult to control worm species.

Unless otherwise stated, use the application rate amount of (Javelin® WG) (this product) in a minimum of 20 gallons of water per acre depending on type of crop and requirement of state regulations. Lower volumes may be used, but proper application equipment must be used to insure adequate coverage. Thorough and uniform crop coverage is required for adequate insect control.

APPLICATION RATES

Crops	Product (lb/A)
FIELD CROPS	
Root and Tuber Vegetables (Crop Group 1) Sugar Beets Apply as necessary to maintain control.	0.25-1.5
Legume Vegetables (Succulent or Dried) (Crop Group 6) Including Beans, Peas, Lentils, Soybeans Apply as necessary to maintain control.	0.25-1.5
Foliage of Legume Vegetables (Crop Group 7) Including Plant Parts of Any Legume Vegetable Included in the Legume Vegetables that Will be Used as Animal Feed Apply as necessary to maintain control.	0.25-1.5
Cereal Grains – Except Barley, Corn, Oats, Rye, Wheat (Crop Group 15)	0.25-1.5

{ } Symbolizes explanatory text to the reviewer
 [] Denotes optional text

Crops	Product (lb/A)
<p>Including Rice, Sorghum Apply as necessary to maintain control.</p>	
<p>Cereal Grains – Barley, Oats, Rye, Wheat (Crop Group 15) Apply as necessary to maintain control.</p>	1.0-1.5
<p>Cereal Grains – Corn (Crop Group 15) Including Field Corn (Fresh, Sweet, Dried), Pop Corn, Seed Corn 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.</p>	0.5-1.5
<p>Forage, Fodder and Straw of Cereal Grains – Except Barley, Corn, Oats, Rye, Wheat (Crop Group 16) Including Forage, Fodder, Stover, and Straw of Rice and Sorghum Apply as necessary to maintain control.</p>	0.25-1.5
<p>Forage, Fodder and Straw of Cereal Grains – Barley, Oats, Rye, Wheat (Crop Group 16) Apply as necessary to maintain control.</p>	1.0-1.5
<p>Forage, Fodder and Straw of Cereal Grains – Corn (Crop Group 16) 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.</p>	0.5-1.5
<p>Grass, Forage, Fodder, and Hay Group (Crop Group 17) Including Sudan Grass and other Forage, Fodder, Stover, and Hay of any Grass <i>Gramineae/Poaceae</i> family (either green or cured) except sugarcane and those included in the cereal grains group 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® WG) (this product) is recommended. The addition of a spreader sticker to (Javelin® WG) (this product) may provide improved performance.</p>	0.25-1.5
<p>Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay) (Crop Group 18) Including Alfalfa (Hay and Seed), Hay Crops, and Other Nongrass Forage, Fodder, and Straw Crops 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® WG is recommended.</p>	0.25-1.5

Crops	Product (lb/A)
<p>The addition of a spreader sticker to (Javelin® WG) (this product) may provide improved performance.</p>	
<p>Oilseed – Except Cottonseed, Jojoba, Safflower, Sunflower (Crop Group 20) Including Canola, Evening Primrose, Rapeseed, Cultivars, Varieties, and/or Hybrids of These Apply as necessary to maintain control.</p>	0.12-1.5
<p>Oilseed – Cottonseed (Crop Group 20) Including Cultivars, Varieties, and/or Hybrids of These</p> <p><u>Including Arizona and California</u> Early and Mid-Season</p> <p>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 through 1st and 3rd instars very rapidly and early application timing is necessary for control.</p> <p>To be effective, (Javelin® WG) (product) 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® WG) (this product) may not provide adequate control.</p> <p>For the suppression of light to moderate infestations, apply at first sign of egg-laying or newly-hatched worms (1st instar larvae).</p> <p><u>Except Arizona and California</u></p> <p>Early Season For early season management of Helicoverpa and Heliiothis species. Initiate applications when 50% of plants are at pinhead square cotton stage, independent of Helicoverpa and Heliiothis 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 Helicoverpa and Heliiothis, tank mixing of (Javelin® WG) (this product) with a labeled ovicide, such as, 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.</p> <p>Read and follow all directions for use, precautions and restrictions on tank mix product labels.</p>	0.50-1.5
<p>Oilseed – Safflower, Sunflower (Crop Group 20) Including Cultivars, Varieties, and/or Hybrids of These Apply as necessary to maintain control.</p>	0.25-1.5
<p>Oilseed – Jojoba (Crop Group 20) Including Cultivars, Varieties, and/or Hybrids of These</p>	0.5-1.0

Crops	Product (lb/A)
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.	
<p>Cotton <u>Including Arizona and California</u> Early and Mid-Season</p> <p>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 through 1st and 3rd instars very rapidly and early application timing is necessary for control.</p> <p>To be effective, (Javelin® WG) (product) 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® WG) (this product) may not provide adequate control.</p> <p>For the suppression of light to moderate infestations, apply at first sign of egg-laying or newly-hatched worms (1st instar larvae).</p>	0.50-1.5
<p><u>Except Arizona and California</u></p> <p>Early Season</p> <p>For early season management of Helicoverpa and Heliiothis species. Initiate applications when 50% of plants are at pinhead square cotton stage, independent of Helicoverpa and Heliiothis 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 Helicoverpa and Heliiothis, tank mixing of (Javelin® WG) (this product) with a labeled ovicide, such as, 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.</p> <p>Read and follow all directions for use, precautions and restrictions on tank mix product labels.</p>	0.25-1.25
<p>Hemp (Outdoor and Greenhouse) Begin treatment as soon as possible after egg hatching. Apply as necessary to maintain control.</p>	0.25-1.5
<p>Hops Apply as necessary to maintain control. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds.</p>	0.25-1.0
<p>Mint Apply as necessary to maintain control.</p>	0.25-1.5
<p>Peanuts Apply as necessary to maintain control.</p>	0.25-1.5
<p>Tobacco Apply as necessary to maintain control.</p>	0.12-1.25
FRUIT, NUT & VINE CROPS	
<p>Cucurbit Vegetables</p>	0.5-0.75

Crops	Product (lb/A)
<p>(Crop Group 9) Including Cantaloupe, Crenshaw, Honeydew, Honey Balls, Muskmelon, Watermelon, and Cultivars, Varieties and/or hybrids of These Apply at first sign of hatch before larvae enter fruit. Repeat as necessary to maintain control.</p>	
<p>Citrus Fruit (Crop Group 10-10) Including Grapefruits, Lemons, Limes, Orange, Tangelo, Tangerine, Cultivars, Varieties and/or hybrids of These Use 50-600 gallons of water per acre when using ground equipment and 10 gallons of water minimum per acre by air. (<i>Amorbia</i> [Mexican leafroller] is suppressed only.)</p>	0.25-1.5
<p>Pome Fruits (Crop Group 11) Including Apples, Pears, and Cultivars, Varieties and/or hybrids of These Apply when newly hatched larvae appear and before leaves are rolled. Continue applying as a part of the normal cover spray program until pest is adequately controlled. Apply when caterpillars are actively feeding (2nd-4th instars).</p>	0.5-4.0
<p>Stone Fruits (Crop Group 12) Including Apricots, Cherries, Nectarines, Peaches, Plums, Pluots, Prunes, and Cultivars, Varieties, and/or Hybrids of These For leafrollers, start treating as soon as possible after hatching and before larvae are protected by leaf folds. Apply when caterpillars are actively feeding (2nd-4th instar). Application timing is very important for good casebearer suppression. Consult your local university or extension agent for information concerning specific modeling that predicts egg lay, typical application dates, and scouting techniques for your area. (Javelin® WG) (This product) must be present at egg hatch for best control. Make application when the majority of eggs are in the pink stage. For best control make two applications 7 days apart. If only one application is made, a minimum of 1lb. should be applied.</p>	0.25-4.0
<p>Berry and Small Fruit – Except Grapes, Strawberries (Crop Group 13-07) Including Blueberries, Blackberries, Boysenberries, Caneberries, Currants, Dewberries, Kiwi, Loganberries, Raspberry, and Cultivars, Varieties, and/or Hybrids of These Apply by ground or aerial equipment using enough water to provide adequate coverage. Begin treatment as soon as possible after hatching. For leafrollers, apply before larvae are protected by leaf folds</p>	0.25-1.0
<p>Berry and Small Fruit – Grapes (Crop Group 13-07) Including Cultivars, Varieties, and/or Hybrids of These</p>	0.5-1.25

Crops	Product (lb/A)
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>Berry and Small Fruit – Strawberries (Crop Group 13-07) Including Cultivars, Varieties, and/or Hybrids of These 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> <p>In a tank mix with contact insecticides, rates as low as 1/2 lb. of (Javelin® WG) (this product) may be used for the control of armyworm.</p>	0.25-1.5
<p>Tree Nuts (Crop Group 14) Including Almonds, Filberts (Hazelnuts), Pecans, Pistachios, Walnuts, and Cultivars, Varieties, and/or Hybrids of These For leafrollers, start treating as soon as possible after hatching and before larvae are protected by leaf folds. Apply when caterpillars are actively feeding (2nd-4th instar).</p> <p>Application timing is very important for good casebearer suppression. Consult your local university or extension agent for information concerning specific modeling that predicts egg lay, typical application dates, and scouting techniques for your area. (Javelin® WG) (This product) must be present at egg hatch for best control. Make application when the majority of eggs are in the pink stage. For best control make two applications 7 days apart. If only one application is made, a minimum of 1lb. should be applied.</p>	0.25-4.0
<p>Tropical and Subtropical Fruit, Edible Peel – Except Guava, Olives (Crop Group 23) Including Persimmons, and Cultivars, Varieties, and Hybrids of These Commodities For leafrollers, start treating as soon as possible after hatching and before larvae are protected by leaf folds.</p> <p>Apply when caterpillars are actively feeding (2nd-4th instar).</p> <p>Application timing is very important for good casebearer suppression. Consult your local university or extension agent for information concerning specific modeling that predicts egg lay, typical application dates, and scouting techniques for your area. (Javelin® WG) (This product) must be present at egg hatch for best control. Make application when the majority of eggs are in the pink stage. For best control make two applications 7 days apart. If only one application is made, a minimum of 1lb. should be applied.</p>	0.25-4.0
<p>Tropical and Subtropical Fruit, Edible Peel – Guava (Crop Group 23) Including Cultivars, Varieties, and Hybrids of These Commodities Apply as necessary to maintain control. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds.</p>	0.25 - 4.0
Tropical and Subtropical Fruit, Edible Peel – Olives	0.25-4.0

Crops	Product (lb/A)
<p>(Crop Group 23) Including Cultivars, Varieties, and Hybrids of These Commodities Apply as necessary to maintain control.</p>	
<p>Tropical and Subtropical Fruit, Inedible Peel – Except Avocados, Bananas, Lychee, Papaya, Sugar Apple (Crop Group 24) Including Pomegranates, and Cultivars, Varieties, and Hybrids of These Commodities For leafrollers, start treating as soon as possible after hatching and before larvae are protected by leaf folds. Apply when caterpillars are actively feeding (2nd-4th instar). Application timing is very important for good casebearer suppression. Consult your local university or extension agent for information concerning specific modeling that predicts egg lay, typical application dates, and scouting techniques for your area. (Javelin® WG) (This product) must be present at egg hatch for best control. Make application when the majority of eggs are in the pink stage. For best control make two applications 7 days apart. If only one application is made, a minimum of 1lb. should be applied.</p>	0.25-4.0
<p>Tropical and Subtropical Fruit, Inedible Peel – Avocados (Crop Group 24) Including Cultivars, Varieties, and Hybrids of These Commodities Apply as necessary to maintain control. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds. (<i>Amorbia</i> [Mexican leafroller] is suppressed only).</p>	0.5-1.25
<p>Tropical and Subtropical Fruit, Inedible Peel – Bananas (Crop Group 24) Including Cultivars, Varieties, and Hybrids of These Commodities Hawaii only. Use calibrated ground equipment with adequate water to apply to point of runoff.</p>	0.5-1.0
<p>Tropical and Subtropical Fruit, Inedible Peel – Lychee, Papaya, Sugar Apple (Crop Group 24) Including Cultivars, Varieties, and Hybrids of These Commodities Apply as necessary to maintain control. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds.</p>	0.25 - 4.0
<p>Coffee Apply as necessary to maintain control.</p>	0.25-4.0
VEGETABLE CROPS	
<p>Root and Tuber Vegetables – Except Artichokes (Crop Group 1) Including Beets (Table, Garden, Sugar), Carrots, Celeriac, Chinese Radish (Daikon), Horseradish, Parsnips, Potatoes, Radishes, Rutabaga, Salsify, Sweet Potatoes, Turnip Root, Yams Apply as necessary to maintain control.</p>	0.12-1.5
<p>Root and Tuber Vegetables – Artichokes (Crop Group 1)</p>	0.5-1.25

Crops	Product (lb/A)
<p>Apply in a minimum of 100 gal. of water per acre with a spray interval of 10 days or less.</p> <p>Apply 1 lb./A in combination with ASANA® XL, AMBUSH®, or SUPRACIDE® 25-W aeri ally to aid in resistance management of the artichoke plume moth. Use and follow all label directions of the tank mix partner regarding application, timing, gallonage, and schedules.</p>	
<p>Leaves of Root and Tuber Vegetables (Crop Group 2) Including Beets (Table, Garden, Sugar), Carrots, Celeriac, Parsnips, Radishes, Rutabaga, Salsify, Sweet Potatoes, Turnip, Yams Apply as necessary to maintain control.</p>	0.12-1.5
<p>Bulb Vegetables (Crop Group 3-07) Including Chives, Onions (Dry Bulb, Green) Garlic, Leeks, and Cultivars, Varieties, and/or Hybrids of These Apply as necessary to maintain control.</p>	0.12-1.5
<p>Leafy Vegetables (Crop Group 4-16) Including Arugula (Roquette), Chinese Broccoli (Gai Lon), Broccoli Raab (Rapini), Chinese Cabbage (Napa, Gai Choi), Collards, Greens (Dandelion, Turnip, Mustard, Beet, China), Kale, Lettuce (Endive, Escarole, Romaine, Head Lettuce, Escarole, Butter Crunch, Leaf, etc.), Mizuna, Parsley, Rape Greens, Spinach, Swiss Chard, Watercress, and Cultivars, Varieties, and Hybrids of these Commodities Apply as necessary to maintain control.</p>	0.12-1.5
<p>Brassica Head and Stem Vegetables (Crop Group 5-16) Including Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage (Napa), and Cultivars, Varieties, and Hybrids of these commodities. Apply as necessary to maintain control.</p>	0.12-1.5
<p>Legume Vegetables, Succulent or Dried (Crop Group 6) Including Beans (Green, Lima, Mung), Chickpeas (Garbanzo Beans), Peas Apply as necessary to maintain control.</p>	0.12-1.5
<p>Foliage of Legume Vegetables (Crop Group 7) Including Plant Parts of Any Legume Vegetable Included in the Legume Vegetables that Will be Used as Animal Feed Apply as necessary to maintain control.</p>	0.12-1.5
<p>Fruiting Vegetables (Crop Group 8-10) Including Eggplants, Okra, Peppers, Tomatoes, and Cultivars, Varieties and/or Hybrids of These Apply as necessary to maintain control.</p>	0.12-1.5
<p>Cucurbit Vegetables</p>	0.12-1.5

Crops	Product (lb/A)										
<p>(Crop Group 9) Including Cucumbers, Pumpkins, Squash (Summer, Winter, Zucchini) Apply as necessary to maintain control.</p>											
<p>Cereal Grains – Corn (Fresh, Sweet) (Crop Group 15) Apply as necessary to maintain control.</p>	0.12-1.5										
<p>Herbs and Spices (Crop Group 19) Including Basil, Chive, Cilantro (Coriander, Chinese Parsely), Dill, Marjoram, Mustard Seed, Oregano, Parsley (Dried), Pepper, Sage, Tarragon, Thyme Apply as necessary to maintain control.</p>	0.12-1.5										
<p>Stalk, Stem, and Leaf Petiole Vegetables (Crop Group 22) Including Asparagus, Cardoon, Celery, Kohlrabi, and Cultivars, Varieties, and Hybrids of These Commodities Apply as necessary to maintain control.</p>	0.12-1.5										
<p>Globe Artichokes Apply in a minimum of 100 gal. of water per acre with a spray interval of 10 days or less.</p> <p>Apply 1 lb./A in combination with ASANA® XL, AMBUSH®, or SUPRACIDE® 25-W aerially to aid in resistance management of the artichoke plume moth. Use and follow all label directions of the tank mix partner regarding application, timing, gallonage, and schedules.</p>	0.5-1.25										
NONFOOD CROPS											
<p>Flowers and Ornamentals (Outdoor and Greenhouse)</p> <p>(Javelin® WG) (This product) may also be used on flowers and ornamentals outdoors and in the greenhouse at a rate of 0.25-1.50 lb. per 100 gallons of water for control of listed insects on this label.</p> <p>Guide for Small Spray Volume Mixing</p> <table border="0" data-bbox="224 1339 764 1507"> <thead> <tr> <th data-bbox="224 1339 293 1367">Rate</th> <th data-bbox="505 1339 748 1367">Conversion Rate*</th> </tr> <tr> <th data-bbox="224 1367 326 1394">Lbs. / A</th> <th data-bbox="488 1367 764 1394">Teaspoons / Gallon</th> </tr> </thead> <tbody> <tr> <td data-bbox="261 1394 289 1421">¼</td> <td data-bbox="570 1394 597 1421">½</td> </tr> <tr> <td data-bbox="261 1421 289 1449">½</td> <td data-bbox="570 1421 597 1449">1</td> </tr> <tr> <td data-bbox="261 1449 289 1476">1</td> <td data-bbox="570 1449 597 1476">2</td> </tr> </tbody> </table> <p>* Assumes Application to spray runoff</p>	Rate	Conversion Rate*	Lbs. / A	Teaspoons / Gallon	¼	½	½	1	1	2	
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½	1										
1	2										
<p>Shade Trees and Ornamentals (including Roses)</p> <p>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.</p> <p>Apply when most larvae are 3rd-4th instar. Also consider the opening of the bud cap to ensure foliage exposure.</p> <p>Apply after eggs have hatched and early instar larvae are feeding on exposed foliage.</p>	0.12-1.25										

Crops	Product (lb/A)																																										
Turf and Grass Seed Production Repeat as necessary throughout season to maintain control.	1.0																																										
STORED SOYBEANS AND GRAINS* (Indian Meal Moth, Almond Moth)																																											
<p>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 1.5 oz. by weight of (Javelin® WG) (this product). 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 Table below can be used as a guide in determining the total amount of (Javelin® WG) (this product) needed according to bin diameter or the number of bushels to be treated.</p> <table border="1" data-bbox="344 716 1044 1157"> <thead> <tr> <th rowspan="2">Bin Diameter (ft.)</th> <th rowspan="2">Surface Area (sq. ft.)</th> <th rowspan="2">Bushels (to 4 in. depth)</th> <th colspan="2">JAVELIN WG Rate (by weight)</th> </tr> <tr> <th>Grams</th> <th>oz.</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>50</td> <td>13</td> <td>21</td> <td>0.75</td> </tr> <tr> <td>12</td> <td>113</td> <td>30</td> <td>50</td> <td>1.75</td> </tr> <tr> <td>16</td> <td>201</td> <td>53</td> <td>85</td> <td>3.00</td> </tr> <tr> <td>20</td> <td>314</td> <td>84</td> <td>120</td> <td>4.25</td> </tr> <tr> <td>24</td> <td>452</td> <td>120</td> <td>185</td> <td>6.50</td> </tr> <tr> <td>28</td> <td>615</td> <td>163</td> <td>255</td> <td>9.00</td> </tr> <tr> <td>32</td> <td>804</td> <td>214</td> <td>326</td> <td>11.50</td> </tr> </tbody> </table> <p>To ensure 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.</p> <p>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.</p> <p>For the protection of bagged grain, apply spray mixture to entire grain mass, and mix thoroughly prior to bagging. (Javelin® WG) (This product) at 6 oz. by weight per 10 gallons of water will treat approximately 100 bushels.</p> <p>Treated grain may be used at any time after treatment.</p>		Bin Diameter (ft.)	Surface Area (sq. ft.)	Bushels (to 4 in. depth)	JAVELIN WG Rate (by weight)		Grams	oz.	8	50	13	21	0.75	12	113	30	50	1.75	16	201	53	85	3.00	20	314	84	120	4.25	24	452	120	185	6.50	28	615	163	255	9.00	32	804	214	326	11.50
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*Barley, Corn (Field, Sweet, Pop, Seed), Jojoba, Oats, Rice, Rye, Sorghum, Wheat, Wild Rice.

STORAGE AND DISPOSAL

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

Storage: Store in original container in a cool, dry place inaccessible to children and pets and away from heat and direct sunlight. Protect from freezing. Storage at temperatures above 90°F may impair effectiveness.

Pesticide Disposal: Pesticide, spray mixture, or rinse water that cannot be used according to label instruction must be disposed of according to Federal, State, or Local procedures.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag 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 LLC 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. To the extent consistent with applicable law, 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

Ambush® is a registered trademark of AMVAC.

Asana® is a registered trademark of Sumitomo Chemical Company, Limited.

Javelin® is a registered trademark of Certis USA LLC.

CHEMIGATION APPLICATIONS

(Javelin® WG) (This product) alone or in combination with other tank mixtures which are registered for sprinkler irrigation may be applied through irrigation systems.

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 agrichemicals. Agitation is necessary. Apply the pesticide continuously for the duration of the water application.

Apply this product only through sprinkler systems such as center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move. 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 nonuniform distribution of treated water. If you have questions about calibration, you should 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 system 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.

OPERATING INSTRUCTIONS

Sprinkler Irrigation

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigated pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must 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-operating 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 (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water of human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional,

reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

CALIBRATION AND APPLICATION

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Users should check with state and local regulatory agencies for potential use restrictions before applying any agricultural pesticide through sprinkler irrigation equipment.

Center Pivot Irrigation Equipment

(Use only with drive systems which provide uniform water distribution.)

1. Determine the size of the area to be treated.
2. Determine the time required to apply 1/4-1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run the system at 80-95% of the manufacturer's rated capacity.
3. Using water, determine the injection pump output when operated at normal line pressure.
4. Do not use the end gun for applications of (Javelin® WG) (this product) through Center Pivot Irrigation Equipment.
5. Determine the amount of (Javelin® WG) (this product) required to treat the area covered by the irrigation system. (Refer to table for use rates.)
6. Add the required amount of (Javelin® WG) (this product) all at once to sufficient water in the injection solution tank to meet the injection time requirements. (See Mixing Instructions section of this label.)
7. Maintain constant agitation in the injection solution tank during the injection period.
8. Inject (Javelin® WG) (this product) at the end of the irrigation cycle in 1/4-1/2 inch of

- water or as a separate application to maximize the effectiveness of the insecticide.
9. Continue to operate the system until the (Javelin® WG) (product) solution has cleared the last sprinkler head.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

1. Determine the acreage covered by the sprinklers.
2. Fill the injection solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval.
3. Determine the amount of (Javelin® WG) (this product) required to treat the area covered by the irrigation system.
4. Add the required amount of (Javelin® WG) (this product) into the same quantity of water used to calibrate the injection period. (See Mixing Instructions section of this label.)
5. Operate the system at the same pressure and time interval established during the calibration.
6. Maintain constant agitation in the injection solution tank during the injection period.
7. Inject (Javelin® WG) (this product) at the end of the irrigation cycle in 1/4-1/2 inch of water or as a separate application to maximize the effectiveness of the insecticide.
8. Stop injection equipment after the treatment is completed. Continue to operate the system until the (Javelin® WG) (product) solution has cleared the last sprinkler head.

Optional Label Statements:

- [See [additional] [precautionary statements] [and] directions for use inside booklet.]
- [See [side][back][inside][other] panel for [additional] [first aid] [and] [precautionary] statements.]
- [Refer to inside of label booklet for additional precautionary information and Directions for Use including First Aid and Storage and Disposal.]

{List of Alternate Brand Names:}

Able WG
Javelin 6.4 WG
PRIMAL
Dolphin
Bio-Bacillus
Delfin Garden
Anti Rups
RUPSVRIJ
Anti pyrale du buis
Delfin jardin
Delfin Dual
Delfin 32 WG
Delphin
Delfin®
Delfin® WG
Javelin® WG₆
Delfin® WG₆