

 Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4 Prosper with pe

 6)], the handler PPE requirements may be reduced or modified as specified in the WPS.
 This labeling muture

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 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

NOTICE: Read "Limitation of Warranty and Limitation of Liability" on the container or in this Directions for Use section before buying or using. If terms are not acceptable, return at once, unopened.

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

JAVELIN® WG is a biological insecticide for the control of lepidopterous larvae (see Application Rates section).

JAVELIN® WG attacks the larval gut and must be ingested by the insect to be effective.

JAVELIN® WG may be applied up to and on the day of harvest.

#### **GENERAL USE INSTRUCTIONS**

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.

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 performance.

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® WG for specific rates, application timing, and precautions.

#### Mixing

Fill spray or mixing tank 3/4 full. Turn on agitation and pour JAVELIN® WG 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 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 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.

## **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® WG 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 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.

#### INSECTS CONTROLLED

When used as directed, JAVELIN® WG will control the following insects.

Common Name Alfalfa caterpillar Almond Moth Armyworm Anichoke plume moth Bagworm

Banana skipper Bertha armyworm Blueberry leafrollers Blueberry spanworm Boliworm California oak moth Cherry fruitworm Citrus cutworm Codling moth Cotton leafperforator Cotton leafperforator Cotton leafworm Cutworm Diamondback moth Douglas-fir tussock moth

Eim spanworm European com borer Fall cankerworm Fall webworm Filbert webworm

Fruittree leafroller Grape leaffolder Grapeleaf skeletonizer Green cloverworm Green fruitworm Gypsy moth Helicoverpa spp. Heliothis spp. Hornworms Imported cabbageworm Jack pine budworm Loopers Mimosa webworm Naval orangeworm Obliquebanded leafroller Omnivorous leatroller

Scientific Name Collas eurytheme (Boisduval) Cadra cautella (Walker) Pseudaletia unipuncta (Haworth) Platyptillà carduidactyla (Riley) Thyridopteryx ephemeraeformis (Haworth) Erionota thrax (Haworth) Mamestra configurata various Itame argillacearia (Pack.) Helicoverpa zea (Boddie) Phryganidia californica (Packard) Grapholita packardi (Zeller) Xviomvoes curialis Cydia pomonella (Linnaeus) Bucculatrix thurberiella (Busck) Alabama argillacea (Hubner) various, family Noctuidae Plutella xylostella (Linnaeus) Orgyla pseudotsugata (McDunnough) Ennomos subsignaria (Hubner) Ostrinia nubilalis (Hubner) Alsophila pometaria (Harris) Hyphantria cunea (Drury) Melissopus latiferreanus (Walsingham) Archips argyrospila (Walker) Desmia funeralis (Hubner) Harrisina americana (Guerin) Plathypena scabra (Fabricius) Lithophane antennata (Walker) Lymantria dispar (Linnaeus) Helicoverpa spp. Heliothis spp. Manduca spp. Pieris rapae (Linnaeus) Choristoneura pinus (Freeman) various Homadaula anisocentra (Meyri) Amyelois transitella (Walker) Chorlstoneura rosanceana (Harris) Platynota stultana

Common Name Omnivorous leaftier Orange tortrix Orangedog. Oriental fruit moth Pandemis leafroller Peach twig borer Pecan nut casebearer Redbanded leafroller Redhumped caterpillar Rindworm complex Roughskinned cutworm

Saltmarsh caterpillar Sod webworm Southwestern corn borer Spotted cutworm Spring cankerworm Spruce budworm Tent caterpillar Tobacco budworm Tobacco hornworm Tomato pinworm Tropical sod webworm

Tufted apple bud moth Variegated leafroller Velvetbean caterpillar Western tussock moth

#### Scientific Name

Cnephasia longana (Haworth) Argyrotaenia citrana (Fernald) Papilio cresphontes (Cramer) Grepholita molesta (Busck) Pandemis pyrusana Anarsia lineatella (Zeller) Acrobasis nuxvorella (Neunzig) Argyotaenia velutinana (Walker) Schizura concinna (J.E. Smith) various Athetis mindara (Barnes & McDunnough) Estigmene acrea (Drury) Crambus mutabilis Diatraea grandiosella (Dyar) Xestia spp. Paleacrita vernata (Peck) Choristoneura fumiferana (Clemens) various, family Lasiocampidae Helicoverpa virescens (Fabricius) Manduca sexta (Linnaeus) Keiferia lycopersicella (Walsingham) Herpetogramma phaeopteralis (Guenee) Platynota idaeusalis (Walker) Platynota flavedana (Clemens) Anticarsia germatalis (Hubner) Orgyia vetusta (Boisduval)

### 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 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	Lbs./Acre	
VEGETABLE CROPS		
Artichokes ADDITIONAL INSTRUCTIONS: Apply in a minimum of 100 gal. of water per acre with a spray interval of 10 days or less. Apply 1 Ib/A in combination with ASANA® XL, AMBUSH®, or SUPRACIDE® 25-W aerially to aid in resistance management of the art.choke plume moth. Use and follow all label directions of the tank mix partner regarding application, timing, gallonage, and schedules.	0.50-1.25	
Asparagus, Beans, (Green, Lima, Mung), Broccoll, Broccoll Raab (Rapinl), Brussels Sprouts, Cabbage, Cardoon, Carrots, Cauliflower, Celeriac, Celery, Chick Peas, Chinese Broccoll, Chinese Cabbage, Collards,	0.12-1.50	

Cucumbers, Dry Bulb Onions, Eggplants,

Crops	

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, Yams ADDITIONAL INSTRUCTIONS: Apply as necessary to maintain control.

Lbs/Acre

0.25-1.50

FIELD CROPS

## Alfalfa (Hay and Seed), Sudan Grass, Hay Crops & Other Forage Crops

ADDITIONAL INSTRUCTIONS: 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. The addition of a spreader sticker to JAVELIN® WG may provide improved performance.

Canola and Evening Primrose ADDITIONAL INSTRUCTIONS: Apply as necessary to maintain control.	0.12-1.50
Dry Beans and Peas, Lentils, Mint, Peanuts, Rice, Safflower, Soybeans, Sugar Beets, Sunflower, Sorghum ADDITIONAL INSTRUCTIONS: Apply as necessary to maintain control.	0.25-1.50
Field Corn, Pop Corn, Seed Corn ADDITIONAL INSTRUCTIONS: 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.	0.50-1.50
Hops ADDITIONAL INSTRUCTIONS: Apply as necessary to maintain control.	0.25-1.00
Begin treatment as soon as possible after hatchin and before larvae are protected by leaf folds.	g
Jojoba ADDITIONAL INSTRUCTIONS: 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	0.50-1.00
coverage of foliage is essential and dictates the minimum spray volumes necessary.	

Lbs/Acre

0.50-1.00

0.25-1.50

0.25-1.00

0.50-1.25

0.25-4.00

0.50-0.75

0.25-1.50

the control of armyworm.

Crops	Lbs./Acre	Crops	Lba
Tobacco ADDITIONAL INSTRUCTIONS: Apply as necessary to maintain control.	0.12-1.25	Bananas ADDITIONAL INSTRUCTIONS: Hawali only. Use calibrated ground	0.50
Cotton Including Arizona and California	0.50-1.50	equipment with adequate water to apply to point of runoff.	
Early and Mid-Season ADDITIONAL INSTRUCTIONS: 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		Citrus ADDITIONAL INSTRUCTIONS: Use 50-600 gallons of water per acre when using ground equipment and 10 gallons of water minimum per acre by air.(Amorbia [Mexican leafroller] is suppressed only.)	0.25
periods of high temperatures, worms will progress through 1st and 3rd instars very rapidly and early application timing is necessary for control. To be effective, JAVELIN <sup>®</sup> WG 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 <sup>®</sup> WG may not		Blueberries, Caneberries, Currants, Kiwl ADDITIONAL INSTRUCTIONS: 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.	0.25
For the suppression of light to moderate nfestations, apply at first sign of egg-laying or newly-hatched worms (1st instar larvae). Except Arizona and California Early	,	Grapes ADDITIONAL INSTRUCTIONS: 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.	0.50
ADDITIONAL INSTRUCTIONS: For early season management of <i>Helicoverpa</i> and <i>Heliothis</i> species. Initiate applications when 50% of plants are at pinhead square cotton stage, independent of <i>Helicoverpa</i> and <i>Heliothis</i> egg and larval ounts, or at 1st egg lay, whichever occurs arller. Continue applications on 5-day pray interval up to synthetic pyrethroid		Almonds, Apricots, Cherries Filberts, Nectarines, Peaches Pecans, Persimmons, Plums, Pomegranates, Prunes, Walnuts ADDITIONAL INSTRUCTIONS: For leafrollers, start treating as soon as possible after hatching and before larvae are protected by leaf folds.	0.25
pray window. For added control of elicoverpa and Heliothis, tank mixing of		Apply when caterpillars are actively feeding (2nd-4th instar).	
AVELIN® WG with a labeled ovicide, such s, methomyl (0.125 lb. a.i./acre), rofenofos (0.25 lb. a.i./acre), or thiodicarb 0.125-0.25 lb.a. i./acre) is recommended. ead and follow all directions for use, recautions and restrictions on tank mix roduct labels.		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 must be present at egg.	,
RUIT, NUT & VINE CROPS		hatch for best control. Make application when the majority of eggs are in the pink	
pples and Pears DDITIONAL INSTRUCTIONS: pply when newly hatched larvae appear 1d before leaves are rolled. Continue	0.50-4.00	stage. For best control make two applications 7 days apart. If only one application is made, a minimum of 11b. should be applied.	
oplying as a part of the normal cover spray ogram until pest is adequately controlled. pply when caterpillars are actively feeding ind-4th instans).		Melons (Also see vegetables) ADDITIONAL INSTRUCTIONS: Apply at first sign of hatch before larvae enter fruit. Repeat as necessary to maintain contro	
vocados DDITIONAL INSTRUCTIONS: oply as necessary to maintain control. ogin treatment as soon as possible after atching and before larvae are protected beaf folds.	0.50-1.25	Strawberries C ADDITIONAL INSTRUCTIONS: Apply as necessary to maintain control. Use a gallons water minimum per acre when using ground equipment and 5 gallons water minimum per acre by aircraft.	
near rolas. morbia [Mexican leafroller] is ppressed only).	•	In a tank mix with contact insecticides, rates a low as 1/2 lb. of JAVELIN® WG may be used i	

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Сгоря	Lbs./Acre
SHADE TREES AND ORNAMENTALS	0.12-1.25

## (Including Roses) ADDITIONAL INSTRUCTIONS: 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.

Apply when most larvae are 3rd-4th instar. Also consider the opening of the bud cap to ensure foliage exposure. Apply after eggs have hatched and early instar larvae are feeding on exposed foliage.

#### TURF AND GRASS SEED PRODUCTION ADDITIONAL INSTRUCTIONS:

1.00

Repeat as necessary throughout season to maintain control.

# STORED SOYBEANS, GRAINS

(Indian Meal Moth, Almond Moth)

ADDITIONAL INSTRUCTIONS:

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. 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 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)	F	LIN <sup>®</sup> WG Rate weight)
			Grams	<u>oz.</u>
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

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® WG at 6 oz. by weight per 10 gallons of water will treat approximately 100 bushels.

Treated grain may be used at any time after treatment.

#### Flowers and Ornamentals

JAVELIN® WG 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.

## Guide for Small Spray Volume Mixing

Rate Lbs. / A	Conversion Hate" Teaspoons / Gallon
1/4	1/2
1/2	1
1	2

\*Assumes Application to spray runoff.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and 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 Disposal**

Completely empty container into application equipment. 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 herain 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 tisks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR MERCHANTABILITY IS MADE.

## REGISTERED TRADEMARKS

Ambush<sup>®</sup> is a registered trademark of Syngenta. Asana<sup>®</sup> XL is a registered trademark of E.I duPont de Nemours and Co., Inc.

Supracide<sup>®</sup> 25-W is a registered trademark of Gowan Company.

JAVELIN<sup>®</sup> WG is a registered trademark of Certis USA, L.L.C.