Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD 2014-2016 LIC. NO.

8719.6

GRANDEVO®

PULL HERE TO OPEN

Active Ingredient: *Chromobacterium subtsugae* strain PRAA4-1[T] and spent fermentation media* 30.0%
Other Ingredients: 70.0%
Total: 100.0%

*Contains not less than 1000 Cabbage Looper Killing Units (CLKU)/mg. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No.: 84059-17

☑ **EPA Est. No.:** 39578-TX-1
☐ **EPA Est. No.:** 84059-MI-001

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

CAN BE USED IN ORGANIC PRODUCTION

OMRI LISTED

NET WEIGHT:

☐ 5 lb ☐ 30 lb ☐ _____

GRA-13-03 **Lot #:**

Marrone® Bio Innovations
2121 Second St., Suite B-107, Davis, CA 95618 USA
info@marronebio.com

PF-59532-3

GRANDEVO®

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Other Ingredients: 70.0%
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GRA-13-03 **Lot #:**

Marrone® Bio Innovations
2121 Second St., Suite B-107, Davis, CA 95618 USA
info@marronebio.com

Job 68578

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if inhaled, swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks
- protective eyewear

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

Engineering Controls: 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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This product is toxic to certain nontarget terrestrial arthropods. Minimize spray drift away from target area to reduce effects to nontarget insects.

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.

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 State or Tribal agency responsible for pesticide regulation. 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.

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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
- Protective eyewear

EXCEPTION: If the product is soil incorporated or soil injected, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep unprotected persons out of treated areas until sprays have dried.

PRODUCT INFORMATION

GRANDEVO® is a biological insecticide/miticide containing fermentation solids of *Chromobacterium subtsugae* strain PRAA4-1^{T} for use on edible crops against the pests listed in the Directions for Use section. GRANDEVO® functions primarily as a stomach poison for use in the control or suppression of many foliar-feeding pests, including caterpillars, and certain coleoptera. GRANDEVO® has multiple effects, including reducing fecundity and oviposition, deterring feeding and acting as a stomach poison on Homoptera and Hemiptera, such as aphids, psyllids, whiteflies, *Lygus* and mealybugs, and on thrips and phytophagous mites infesting labeled crops or use sites. GRANDEVO® must be mixed with water and applied as a foliar spray with ground or aerial equipment equipped for conventional insecticide spraying or by chemigation.

GRANDEVO® can be used in the field or greenhouse for the control of any labeled pest.

USE INSTRUCTIONS

GRANDEVO® is a biological insecticide/miticide for use against listed insects and mites. Close scouting and early attention to infestations is highly recommended. For insects and mites, proper timing of application targeting new populations or recently hatched larvae and nymphs is important for optimal results. Applying GRANDEVO® when pest populations are low is recommended.

This product temporarily repels honey bees, for up to 4 to 6 days after spraying. When needed, time applications so that pollination is not disrupted.

For insects and mites, thorough coverage of infested plant parts is necessary for effective control. GRANDEVO® does not have systemic activity. For some crops, directed drop nozzles by ground machine are required.

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Under heavy pest populations, apply a knockdown insecticide prior to or in a tank mix with GRANDEVO®, use the higher label rates, shorten the spray interval, and/or increase the spray volume to improve coverage.

Repeat applications at an interval sufficient to maintain control, depending upon plant growth rate, insect and mite activity, and other factors. If attempting to control an insect population with a single application, make the treatment when egg hatch is essentially complete but when larvae or nymphs are young and before economic damage occurs.

To enhance control, consider tank mixing with contact insecticides/miticides. Use the lower label rates of GRANDEVO® when populations are low and when tank mixing with other insecticides/miticides. Use the higher rates of GRANDEVO® when applied stand-alone, when populations are high or when egg numbers are high.

For hard-to-wet crops, consider using a spreader/sticker or adjuvant, which has been approved for targeted crop use, to enhance coverage and adhesion of GRANDEVO® to the crop.

GRANDEVO® has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

GROUND AND AERIAL APPLICATIONS

Apply GRANDEVO® in ground and aerial equipment with quantities of water sufficient to provide thorough coverage of infested plant parts. The amount of water needed per acre will depend upon crop development, weather, application equipment, and local experience.

Do not spray when wind speed favors drift beyond the area intended for use.

Avoiding spray drift is the responsibility of the applicator.

Mixing directions

Important - Do not add GRANDEVO® to the tank mix before introducing 3/4 of the desired amount of water. Add water to mix tank. Start the mechanical or hydraulic agitation to provide moderate circulation before adding GRANDEVO®. Add the desired volume of GRANDEVO® to the mix tank and continue circulation while adding the remainder of the water. Maintain circulation while loading and spraying. Do not mix more GRANDEVO® than can be used in 24 hours. Use a strainer no finer than 50 mesh in conventional spray systems.

Spray volume

For conventional air and ground applications, use at least 10 gallons of total volume per acre in water-based sprays.

Tank mixing

Do not combine GRANDEVO® in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, and non-injurious under your use conditions. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

To ensure compatibility of tank mix combinations, they must be evaluated prior to use. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first, then flowables, and then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

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AERIAL DRIFT REDUCTION INFORMATION

GENERAL: 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. Where states have more stringent regulations, they should be observed.

Do not apply directly to aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

INFORMATION ON DROPLET SIZE: Use only medium or coarser spray nozzles according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size. The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that will provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE: Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Pressure - Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When high flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage. Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential. Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM WIDTH: For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade.

APPLICATION HEIGHT: Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

SWATH ADJUSTMENT: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

WIND: Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph. Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

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TEMPERATURE INVERSIONS: Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

CHEMIGATION USE DIRECTIONS

Spray preparation

First, prepare a suspension of GRANDEVO® in a mix tank. Fill tank with 3/4 of the amount of water for the area to be treated. Start mechanical or hydraulic agitation. Add the required amount of GRANDEVO®, and then the remaining volume of water. Then, set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of GRANDEVO® into the irrigation water line so as to deliver the desired rate of GRANDEVO® per acre. Inject the suspension of GRANDEVO® with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. GRANDEVO® is to be metered continuously for the duration of the water application. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not combine GRANDEVO® with other pesticides, surfactants, adjuvants, or fertilizers for application through chemigation equipment unless prior experience has shown the combination to be physically compatible, effective and non-injurious under your conditions of use.

General Requirements -

1) Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.
2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4) 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.
5) 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.

Specific Requirements for Chemigation Systems Connected to Public Water Systems -

1) 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.

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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 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 flow 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.

Specific Requirements for 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 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 (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.

Application Instructions for All Types of Chemigation -
1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause product to lose effectiveness or strength.
2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension.

APPLICATION RATES FOR SELECTED CROPS

For greenhouse applications on the crops and pests listed, use 1 - 3 pounds of GRANDEVO® in 100 gallons of water sprayed until just before point of runoff.

See specific application rates for each crop for additional details on greenhouse applications and for all other application types.

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FOR USE ON THE FOLLOWING CROPS FOR CONTROL OF SPECIFIED INSECTS AND MITES:

Pre-harvest Interval (PHI) = 0 days

Alfalfa (Hay and Seed), Hay and Other Forage Crops

1 – 3 pounds of GRANDEVO® per acre

Alfalfa caterpillar, alfalfa webworm, armyworms, cutworms, European skipper, sod webworm

2 – 3 pounds of GRANDEVO® per acre

Aphids, billbugs, chinch bug, leafhoppers, *Lygus*, mites (such as clover, Bermuda grass stunt, two-spotted, winter grain), plant bugs, spittle bugs

Artichoke (Globe)

1 – 3 pounds of GRANDEVO® per acre

Armyworms, artichoke plume moth, loopers

2 – 3 pounds of GRANDEVO® per acre

Aphids, whiteflies

Asparagus

2 – 3 pounds of GRANDEVO® acre

Aphids, armyworms, cutworms

Bananas

2 – 3 pounds of GRANDEVO® per acre

Banana skipper

Brassica (Cole) Leafy Vegetables

Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Cauliflower, Cavalo Broccolo, Chinese Broccoli, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, and Rape Greens

1 – 3 pounds of GRANDEVO® per acre

Armyworms, beet armyworm, cabbage looper, cabbage webworm, cross-striped cabbageworm, cutworms, diamondback moth, imported cabbageworm, light brown apple moth

2 – 3 pounds of GRANDEVO® per acre

Aphids, billbugs, leafhoppers, mites, plant bugs, thrips, whiteflies, yellow margined leaf beetle larvae

Yellow margined leaf beetle larvae – apply to newly hatched to 2nd instar. If adult beetles are also present, tank mix with a knockdown insecticide.

Bulb Vegetables

Leek, Garlic, Onion (Bulb and Green), and Shallot

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cross-striped cabbageworm, cutworms, diamondback moth, European corn borer, green cloverworm, *Heliothis*, hornworm, imported cabbageworm, leek moth, loopers, omnivorous leafroller, saltmarsh caterpillar, webworms

2 – 3 pounds of GRANDEVO® per acre

Aphids, thrips

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Bushberries

Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, and Salal

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cherry fruitworm, cranberry fruitworm, fireworms, leafrollers, loopers

2 – 3 pounds of GRANDEVO® per acre

Aphids, thrips

Caneberries

Blackberry, Black and Red Raspberry, Loganberry, and Cultivars, Varieties and/or Hybrids of these

1 – 3 pounds of GRANDEVO® per acre

Armyworms, beet armyworm, bertha armyworm, green fruitworm, leafrollers, loopers, western raspberry fruitworm

2 – 3 pounds of GRANDEVO® per acre

Aphids, thrips

Cereal Grains

Barley, Buckwheat, Oats, Pearl Millet, Proso Millet, Rye, Sorghum (Milo), Triticale, and Wheat

1 – 3 pounds of GRANDEVO® per acre

Armyworms, corn earworm (headworm), southwestern corn borer, web worms

2 – 3 pounds of GRANDEVO® per acre

Aphids (including greenbug), chinch bugs, mites, thrips

Citrus Fruit

Grapefruit, Lemons, Limes, Oranges, and Tangerines

1 – 3 pounds of GRANDEVO® per acre

Citrus cutworm, citrus leafminer, fruittree leafroller, orangedog

2 – 3 pounds of GRANDEVO® per acre

Asian citrus psyllid, aphids, citrus blackfly, citrus red mite, citrus rust mite, citrus thrips, citrus whitefly, cloudy-winged whitefly, glassy-winged sharpshooter, mealybugs, six-spotted spider mite, Texas citrus mite, two-spotted spider mite

Corn (Field Corn, Popcorn, Sweet Corn and Corn Grown for Seed)

1 – 3 pounds of GRANDEVO® per acre

Armyworms, common stalk borer, corn earworm, European corn borer, lesser cornstalk borer, southwestern corn borer, webworms, western bean cutworm

2 – 3 pounds of GRANDEVO® per acre

Chinch bugs, corn leaf aphid, mites, thrips

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Cotton

1 – 3 pounds of GRANDEVO® per acre

Cotton bollworm, European corn borer, fall armyworm, loopers (soybean and cabbage), saltmarsh caterpillar, tobacco budworm, yellow-striped armyworm

2 – 3 pounds of GRANDEVO® per acre

Cotton aphid, cotton fleahopper, leafhoppers, *Lygus*, mites, silverleaf whitefly, thrips

Cranberry

2 – 3 pounds of GRANDEVO® per acre

Aphids, armyworms, brown spanworm, cranberry blossom weevil, cranberry fruitworm, cutworms, fireworms, leafrollers, loopers, mites, sparganothis fruitworm, thrips

Do not apply to flooded fields.

Cucurbit Vegetables

Cantaloupe, Cucumber, Edible Gourds, Muskmelon, Pumpkin, Watermelon, and Winter and Summer Squash

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cabbage looper, corn earworm, cutworms, melonworm, pickleworm, rindworm complex

2 – 3 pounds of GRANDEVO® per acre

Aphid, mites, thrips, whiteflies

Fig

1 – 3 pounds of GRANDEVO® per acre

Navel orangeworm

2 – 3 pounds of GRANDEVO® per acre

Aphids, thrips

Fruiting Vegetables

Tomato, Pepper, Eggplant, Groundcherry, Pepino, Okra, and Tomatillo

1 – 3 pounds of GRANDEVO® per acre

Armyworms (including beet and yellow-striped), European corn borer, hornworms, loopers, saltmarsh caterpillar, tomato fruitworm, tomato pinworm, variegated cutworm

2 – 3 pounds of GRANDEVO® per acre

Aphids, *Lygus*, mites, pepper weevil, plant bugs, psyllids, thrips, whiteflies

Grape, Amur River Grape, Gooseberry, Kiwifruit, Maypop, and Schisandra Berry

1 – 3 pounds of GRANDEVO® per acre

Grape berry moth, grape leaf skeletonizer, grape leafroller, light brown apple moth, obliquebanded leafroller, omnivorous leafroller, orange tortrix

2 – 3 pounds of GRANDEVO® per acre

Glassy-winged sharpshooter, leafhoppers, mealybugs, mites, Pacific spider mite, thrips, two-spotted spider mite, Willamette spider mite, whiteflies

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Herbs and Spices

Angelica, Balm, Basil, Borage, Burnet, Camomile, Catnip, Chervil, Chive, Clary, Coriander, Costmary, Cilantro, Curry, Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage, Marjoram, Nasturtium, Parsley (Dried), Rosemary, Sage, Savory (Summer and Winter), Sweet Bay, Tansy, Tarragon, Thyme, Wintergreen, Woodruff, and Wormwood

1 – 3 pounds of GRANDEVO® per acre

Armyworm, loopers, saltmarsh caterpillar

2 – 3 pounds of GRANDEVO® per acre

Aphids, mites, thrips, whiteflies

Hops and Dried Cones

1 – 3 pounds of GRANDEVO® per acre

Armyworms, loopers

2 – 3 pounds of GRANDEVO® per acre

Hops aphid, mites, thrips, whiteflies

Leafy Vegetables

Arugula, Celery, Corn Salad, Cress, Dandelion, Dock, Edible-Leaved Chrysanthemum, Endive, Fennel, Head Lettuce, Leaf Lettuce, Parsley, Purslane, Radicchio, Rhubarb, Spinach, and Swiss Chard

1 – 3 pounds of GRANDEVO® per acre

Armyworm, cabbage looper, cutworm species, diamondback moth, green cloverworm, loopers, tobacco budworm

2 – 3 pounds of GRANDEVO® per acre

Aphids, mites, psyllids, thrips, whiteflies

Leaves of Root and Tuber Vegetables

Beets and Turnips

1 – 3 pounds of GRANDEVO® per acre

Armyworm, cabbage looper, diamondback moth

2 – 3 pounds of GRANDEVO® per acre

Aphids, psyllids, whiteflies

Legume Vegetables (Succulent or Dried) and Grain Crops

Adzuki Bean, Blackeyed Pea, Beans, Chickpea, Cowpea, Crowder Pea, Edible-Pod Pea, English Pea, Fava Bean, Field Bean, Field Pea, Garbanzo Bean, Garden Pea, Green Pea, Kidney Bean, Lentils, Lima Bean, Lupins, Mung Bean, Navy Bean, Peas, Pigeon Pea, Pinto Bean, Runner Bean, Snap Bean, Snow Pea, Soybean, Sugar Snap Pea, Tepary Bean, Wax Bean, and Yardlong Bean

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cabbage looper, corn earworm, green cloverworm, loopers, podworms, soybean looper, velvetbean caterpillar

2 – 3 pounds of GRANDEVO® per acre

Aphids, kudzu bugs, leafhoppers, mites, thrips, whiteflies

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Oilseed Crops

Canola, Safflower, and Sunflower (including Sunflower Grown for Seed)

1 – 3 pounds of GRANDEVO® per acre

Armyworms, diamondback moth, headworms, *Heliothis*, loopers, saltmarsh caterpillar

2 – 3 pounds of GRANDEVO® per acre

Aphids, mites, thrips, whiteflies

Peanut

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cabbage looper, corn earworm, European corn borer, green cloverworm, podworms, red-necked peanut worm, saltmarsh caterpillar, soybean looper, velvetbean caterpillar

2 – 3 pounds of GRANDEVO® per acre

Aphids, mites, thrips, whiteflies

Peppermint

1 – 3 pounds of GRANDEVO® per acre

Armyworms, loopers, saltmarsh caterpillar

Pineapple

1 – 3 pounds of GRANDEVO® per acre

Gummosos-Batracheda Comosae (Hodges), *Thecla-Thecla Basilides* (Geyr) (Fruitborer)

Pome Fruit

Apples, Crabapple, Loquat, Mayhaw, Pears, and Quince

1 – 3 pounds of GRANDEVO® per acre

Codling moth, leafrollers (including fruittree, obliquebanded, redbanded, variegated), light brown apple moth, oriental fruit moth, tufted apple budmoth

Application timing: optimal timing for codling moth, leafrollers, and oriental fruit moth can vary between species and geographic locations. Monitor moth flights with pheromone traps and scout regularly to determine larval populations. GRANDEVO® can be used to supplement mating disruption programs.

2 – 3 pounds of GRANDEVO® per acre

Aphids, mealybugs, mites, pear psylla, thrips, whiteflies

Pomegranate

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cankerworms, codling moth, cutworms, European red mite, filbert leafroller, fruittree leafroller, gypsy moth, McDaniel spider mite, obliquebanded leafroller, oriental fruit moth, Pacific spider mite, redbanded leafroller, tufted apple budmoth, twig borer, two-spotted red mite, variegated leafroller, walnut caterpillar

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Root and Tuber Vegetables

Black Salsify, Carrot, Cassava, Celeriac, Chayote Root, Chicory, Chinese Artichoke, Edible Burdock, Garden Beet, Ginger, Ginseng, Horseradish, Jerusalem Artichoke, Oriental Radish, Parsnip, Potatoes, Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Sugar Beet, Sweet Potatoes, Turmeric, Turnip, Turnip Rooted Chervil, Turnip Rooted Parsley, and Yams

1 – 3 pounds of GRANDEVO® per acre

Armyworms, artichoke plume moth, European corn borer, loopers

2 – 3 pounds of GRANDEVO® per acre

Aphids, potato aphid, potato leafhopper, psyllids, whiteflies

Stone Fruits

Apricots, Cherry, Nectarine, Peach, Plum, and Prune

1 – 3 pounds of GRANDEVO® per acre

Green fruitworm, leafrollers (including fruittree, obliquebanded, pandemic, redbanded, and variegated), oriental fruit moth, peach twig borer, redhumped caterpillar, tent caterpillar

Application timing: optimal timing for leafrollers and peach twig borer can vary between species and geographic locations. Monitor moth flights with pheromone traps and scout regularly to determine larval populations. GRANDEVO® can be used to supplement mating disruption programs.

2 – 3 pounds of GRANDEVO® per acre

Aphids, mealybugs, mites, thrips, whiteflies

Strawberry

1 – 3 pounds of GRANDEVO® per acre

Armyworms, cutworms, leafrollers

2 – 3 pounds of GRANDEVO® per acre

Aphids, *Lygus*, mites, thrips, whiteflies

Tobacco

1 – 3 pounds of GRANDEVO® per acre

Hornworms, loopers, tobacco budworm

2 – 3 pounds of GRANDEVO® per acre

Aphids, mites, thrips, whiteflies

Tree Nuts and Pistachios

Almonds, Cashew, Chestnut, Filbert (Hazelnut), Macadamia Nut, Pecan, Pistachios, and Walnut

1 – 3 pounds of GRANDEVO® per acre

Fall webworm, filbert worm, hickory shuckworm, navel orange worm, obliquebanded leafroller, peach twig borer, pecan nut casebearer, redhumped caterpillar

2 – 3 pounds of GRANDEVO® per acre

Aphids, mealybugs, mites, pecan weevil, whiteflies

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Tropical and Subtropical Fruit

Acerola, Atemoya, Avocado, Biriba, Black Sapote, Canistel, Cherimoya, Custard Apple, Feijoa, Guava, Ilama, Jaboticaba, Kiwi, Longan, Lychee, Mamey Sapote, Mango, Papaya, Passionfruit, Pulasan, Rambutan, Sapodilla, Soursop, Spanish Lime, Star Apple, Starfruit, Sugar Apple, Ti Palm Leaves, Wax Jambu (Wax Apple), and White Sapote

1 – 3 pounds of GRANDEVO® per acre

Aphids, avocado leafroller, citrus peelminer, cutworms, fruittree leafroller, omnivorous leafroller, orange tortrix, thrips, western tussock moth, whiteflies

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Non-refillable 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. Do not burn, unless allowed by state and local ordinances. (For instances where state and local ordinances do allow burning): If burned, stay out of smoke.

WARRANTY

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. To the extent consistent with applicable law, the user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.

Label date: May 13, 2013

Made in the U.S.A.

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