

# **TREE NUTS - CODLING MOTH**

## General Information

### PRODUCT INFORMATION

GRANDEVO is a biological insecticide/miticide containing fermentation solids of *Chromobacterium subtsugae* strain PRAA4-1T 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 coleopteran. 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.

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.

## 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.

## Limitations, Restrictions, and Exceptions

## TREE NUTS

Apply 2-3 pounds Grandevo per acre when used alone, or 1-3 pounds per acre when tank mixed with another insecticide labeled for control of codling moth.

Use the higher rate range for larger trees and heavier infestations.

## USE RECOMMENDATIONS

Apply Grandevo as a foliar spray when pests first appear. Closely follow regional spray recommendations for codling moth based upon biofixes, pheromone trap catches and egg hatch.

Grandevo is a larvicide and must be applied prior to egg hatch. Codling moth larvae must be controlled before they penetrate developing nuts. Codling moth egg hatch typically begins at 220 - 250 degree days (base 50° F). Reapply on a 3-7 day interval for the duration of egg hatch.

Grandevo can be used in combination with mating disruption programs.

Method

[Spray](#)

Rates

[field rates 0](#)

- 

Restricted Entry Interval

4 hours

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.

Timings

[When pests first appear.](#)