Defend Your Crops
USING BIO WITH BITE.™

Marrone biopesticides improve tree health and increase yield without visible residue or pollinator disruption. Backed by data from over 1500 trials, our biological pesticides protect all major citrus crops. Marrone biopesticides offer great return on investment, safely and sustainability.

### PROTECT CITRUS FRUIT FROM:
- Asian Citrus Psyllid
- Glassy-winged sharpshooter
- Black Spot
- Aphids
- Nematodes
- And many more...

**GRANDEVO®**

Grandev® Bioinsecticide suppresses or controls early insect populations, protecting your citrus crops and helping to prolong the lifespan of other pesticides.

**BENEFITS:**
- Broad spectrum protection against sucking and chewing insects
- Easy on pollinators and beneficial insects
- Multiple modes of action
  - Repellency
  - Ingestion
  - Reproduction Disruption
- No effect on pollination and fruit set

**BASIC USE INSTRUCTIONS:**
1-3 pounds per acre on a 7-day interval. Applications should begin early in spring to prevent secondary pest outbreaks.

**KEY TARGET PESTS:**
- Aphids
- Asian Citrus Psyllid
- Glassy-winged sharpshooter
- Whiteflies
- Mites
- Citrus Leafminer

**ASIAN CITRUS PSYLLID**
P. STANSLY, UNIVERSITY OF FLORIDA, IMMOKALEE, FL

<table>
<thead>
<tr>
<th>Adults per tap</th>
<th>Nymphs per shoot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRANDEVO® 2 lb + surfactant</strong></td>
<td>Fenproximate</td>
</tr>
<tr>
<td>Untreated Control</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Insects</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>4.5</td>
</tr>
</tbody>
</table>

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Grandev is a good resistance management tool. This is where I see bioinsecticides having a real advantage. Grandev and other bioinsecticides can definitely help with mode of action rotational programs.

–JEFF LEWIS, RIVERVIEW FLOWER FARM

* Except Haven, all other products OMRI Listed and NOP Compliant
Use Regalia® Biofungicide early for disease prevention and overall plant health, and through the season for continued disease control. Great resistance management tool in IPM programs.

**BENEFITS:**
- Better yield and harvest quality for conventional and organic citrus
- Late residue management for MRL exemption
- Prevents disease by boosting plant self-defense
- Unique FRAC P5 Classification

**BASIC USE INSTRUCTIONS:**
Tank Mix Program: 1 qt per acre of Regalia mixed with another fungicide, 10-14 day intervals  
Rotational Program: 2 qt per acre of Regalia alternating with another fungicide, 7-10 day intervals  
To avoid petal staining or burn do not exceed 2 quarts per acre during bloom.

**KEY TARGET PESTS:**
- Black Spot
- Scab
- Brown Spot
- Alternaria Black Spot
- Bacterial Canker
- Postbloom Fruit Drop

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Haven® Sun Protectant contributes to a cooler canopy, reducing plant transpiration and blocking harmful solar radiation. It leaves no visible residue on the crops, making harvest and processing easier.

**BENEFITS:**
- Higher yields compared to untreated crops and most other treatments
- Blocks harmful radiation like UV-B that harms plant tissue and growth
- Increases yield by improving drought and heat stress tolerance
- Lowers internal leaf canopy temperatures
- Performs at levels that match or exceed standard

**BASIC USE INSTRUCTIONS:**
Applications should begin at early fruit set.  
Apply at rates of 0.6% to 0.9% v/v in 50-100 gallon solution per acre, 2-4 times at 7-14 day interval.

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**REGALIA NEARLY TRIPLES QUALITY OF CITRUS HEALTH**

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Program with Regalia</th>
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</thead>
<tbody>
<tr>
<td>Bins Per Acre</td>
<td>0</td>
<td>30</td>
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</tbody>
</table>

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**CITRUS CANKER ON GRAPEFRUIT**

**XANTHOMONAS SSP.**

**GLADES CROP CARE, HOBE SOUND, FLORIDA**

<table>
<thead>
<tr>
<th></th>
<th>Program with Regalia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grower Standard</td>
<td></td>
</tr>
<tr>
<td>% Incidence (Fruit)</td>
<td>40</td>
</tr>
</tbody>
</table>

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**HAVEN INCREASES PLANT HEALTH BY 38%**

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Surround</th>
<th>Haven</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Shoots (Number/half tree)</td>
<td>0</td>
<td>110</td>
<td></td>
</tr>
</tbody>
</table>

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**CHECK OUT GROWER VIDEOS**

marronebio.com/videos
Venerate® Bioinsecticide is your go-to broad-spectrum in-season bioinsecticide. Venerate is an excellent addition to existing IPM and resistance management programs.

**BENEFITS:**
- Broad spectrum protection against sucking and chewing insects, mites and certain weevils
- Multiple modes of action
  - Exoskeleton degradation
  - Ingestion
  - Molting interference
- Tolerance exempt—never worry about MRLs
- Quality control tested to ensure no human microbial pathogens

**BASIC USE INSTRUCTIONS:**
Apply 2-4 quarts per acre on 7-day interval. Apply by ground or air. Approved for field or greenhouse application. No limit on the number of applications per season.

**KEY TARGET PESTS:**
- Citrus Rust Mite
- Mealybugs
- Florida Red Scale
- Asian Citrus Psyllid
- Citrus Cutworm
- Aphids

Majestene® Bionematicide controls or suppresses crop damaging nematodes to improve root health and increase citrus yields.

**BENEFITS:**
- Economically sustainable liquid bionematicide
- Can be applied at planting and in-season for whole-season nematode control or suppression
- No plant-back restrictions
- Flexible application: soil drench, in-furrow, or chemigation like drip or sprinkler irrigation

**BASIC USE INSTRUCTIONS:**
Apply 4-8 quarts per acre at a 21-day interval as part of an irrigation event.

**KEY TARGET PESTS:**
- Root Knot Nematode
- Dagger Nematode
- Cyst Nematode
- Lesion Nematode
- Subby Root Nematode
- Lesion Nematode
- Subby Root Nematode
- Citrus Rust Mite
- Mealybugs
- Florida Red Scale
- Asian Citrus Psyllid
- Citrus Cutworm
- Aphids

The biggest advantage for us is the reentry time and the pre-harvest times. The flexibility is huge for us. We grow a lot of acres so we’ve got to cover a lot of ground every single day, so it enables us to do that.

–KANE HANNAFORD, G&D FARMS

The graph shows the percentage of infested fruit with and without the use of Venerate XC.

Majestene improves root and plant growth when applied as a pre-plant dip.

**MORE DATA, CROP BULLETINS, LABELS AND SAFETY DATA SHEETS**

VISIT MARRONEBIO.COM
Biological solutions present a whole new frontier for traditional growers. They prevent the same problems traditional growers would be looking to prevent but in a way that is softer on the planet, the environment, the farmworkers, and the watershed.

- DAVID KNAUS, APICAL CROP SCIENCE

“THEMING OF APPLICATION”

PLANTING | BLOOM SET | FRUIT SET | HARVEST
---|---|---|---
Majestene | Grandevo | Regalia | Haven

If you haven’t tried one of our products, we want to talk to you! Give us a call at (530) 750-2800 or visit us at marronebio.com

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