With data from over 1500 trials, Marrone develops biological pesticides that are safe for workers, consumers, and the environment. We have pioneered techniques to provide uniquely powerful crop protection. From field to greenhouse, our award-winning biopesticides control insects, mites and disease, safely and sustainably, with great return on investment.

PROTECT FRUIT FROM:
- Fire/Shoot Blight
- San Jose Scale
- Rosy Apple Aphid
- Pear Psylla
- Powdery Mildew
- And many more...

Grandevo® Bioinsecticide is an advanced bioinsecticide that suppresses or controls early insect populations, protecting your fruit 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
- Mealybugs
- Mites
- Whiteflies

**GRANDEVO REDUCES APHIDS BY 80%**

*Grandevo applied at 2 lbs per acre

<table>
<thead>
<tr>
<th></th>
<th>Pre-count</th>
<th>Day 4</th>
<th>Day 6</th>
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Green Apple Aphids (per 1000 Terminals)

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

–JEFF LEWIS, RIVERVIEW FLOWER FARM

*All products are OMRI listed, except Haven.*
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 fruit
- Apply early for late residue management
- Stimulates plant immunity and prevents disease
- 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:**
- Fire/Shoot Blight
- Powdery Mildew

**REGALIA REDUCES POWDERY MILDEW BY 73%**

<table>
<thead>
<tr>
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<th>Disease Severity (% Leaves Affected)</th>
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<tr>
<td>Program with Regalia</td>
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<tr>
<td>Paraffinic Oil</td>
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<td>Untreated</td>
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**REGALIA REDUCES FIRE BLIGHT BY 88%**

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<tr>
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<th>Blossom Blight (% Affected)</th>
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<tr>
<td>Program with Regalia</td>
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<tr>
<td>Copper</td>
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<td>Bacillus subtilis</td>
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<tr>
<td>Untreated</td>
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Haven® Sun Protectant contributes to a cooler canopy by blocking harmful solar radiations.

**BENEFITS:**
- Leaves no visible residue on the fruit making harvest and processing easier
- Increases yield by improving drought and heat stress tolerance
- Lowers internal leaf canopy temperatures
- Blocks harmful radiation like UV-B that harms plant tissue and growth

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

**HAVEN DECREASES SUNBURN SEVERITY BY 66% COMPARED TO UNTREATED**

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<th>Suburn Rating (Scale of 0-5)</th>
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<tr>
<td>Haven® Treatment</td>
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<tr>
<td>Surround® Treatment</td>
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**SURROUND® TREATMENT**
LEAVES VISIBLE RESIDUE

**HAVEN® TREATMENT**
LEAVES NO VISIBLE RESIDUE
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
- Non-toxic to fish, birds, and most beneficial insects, including honey bees
- Flexibility of application with activity against adults and nymphs

**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:**
- Pear Psylla
- Plum Curculio
- San Jose Scale
- Stink Bugs
- Aphids

**VENERATE REDUCES APHIDS BY 82%**

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Rosy Apple Aphids (per 100 Terminals)

"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

"MARRONE HELPS US MOVE FORWARD"

"MY SPRAY REGIMEN ALWAYS HAS BIOLOGICALS IN IT"

It’s important to have relationships with companies like Marrone who look for alternative methods, chemistries and processes for safer products. Their people are experienced and know how best to use biologicals and on which target insects. Marrone helps us move forward to better meet consumer demand.

—JEFF LEWIS, RIVERVIEW FLOWER FARM

My spray regimen always has biologicals in it. Every time I spray, I’ve got biologicals in my spray. Every time the tank goes out, it’s got it in there, and I’m keeping it on there. I’ve cut back my spray this year. I’ve done it three years in a raw and I totally stand by it.

—MATT PARKE, PARKESDALE FARMS
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

### TIMING OF APPLICATION

<table>
<thead>
<tr>
<th>DORMANCY</th>
<th>PRE BLOOM</th>
<th>BLOOM</th>
<th>PETAL FALL</th>
<th>FRUIT SET</th>
<th>FRUIT DEV’P</th>
<th>RIPENING</th>
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