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 TREE NUTS FROM:**
- Blossom Blight
- Walnut Husk Fly
- Brown Rot
- Peach Twig Borer
- Navel Orange Worm
- And many more...

**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 nut development

**BASIC USE INSTRUCTIONS:**
Apply 1-3 lbs per acre on 7-day interval. Begin applications early to reduce reproduction by adult sucking insects and mites and to target newly hatched or emerged larvae and nymphs. Under heavy populations, rotate Grandevo with other insecticides/miticides and tank mix with contact or systemic insecticides/miticides.

**KEY TARGET PESTS:**
- Navel Orange Worm
- Walnut Husk Fly
- Aphids
- Mites
- Walnut Scale
- San Jose Scale

**71% REDUCTION IN NAVEL ORANGEWORMS WITH GRANDEVO**

<table>
<thead>
<tr>
<th>Untreated</th>
<th>Chlorantraniliprole, Spinotram Program + Adjuvant</th>
<th>Program with Grandevo</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

**Navel Orangeworm Severity on Almonds (200 nuts/plot)**

*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 resistant management tool in IPM programs.

**BENEFITS:**
- Better yield and harvest quality for conventional and organic tree nuts
- Apply early for late residue management
- Stimulates plant immunity and prevents disease
- Unique FRAC P5 Classification

**BASIC USE INSTRUCTIONS:**
Apply Regalia preventatively before disease gains a foothold. Use Regalia early and through the season for plant health, and even late in the season to avoid potential residue issues.

**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 1 quart in 50 – 100 gallons of water per acre during bloom.

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Haven® Sun Protectant contributes to a cooler canopy, reducing plant transpiration and 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 nut set. Apply at rates of 0.6% to 0.9% v/v in 100-200 gal solution per acre, 2-4 times at 7-14 day interval.

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**KEY TARGET PESTS:**
- Blossom Blight
- Brown Rot
- Anthracnose
- Walnut Blight
- Shot Hole

**85% LESS ALMOND ANTHRACNOSE WITH REGALIA**

<table>
<thead>
<tr>
<th>Incidence of Anthracnose (out of 5) per 25 leaves</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

**REGALIA REDUCES WALNUT BLIGHT BY 93%**

<table>
<thead>
<tr>
<th>Walnut Blight (% Affected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

**20% MORE ALMONDS WITH HAVEN THAN SURROUND**

<table>
<thead>
<tr>
<th>Almond Yield (Tons per Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

**SURROUND®** | **HAVEN**
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

**BASIC USE INSTRUCTIONS:**
Apply 2-4 quarts per acre on a 7-day interval. No limit on number of applications per season. No spray buffer needed.

**KEY TARGET PESTS:**
- Navel Orange Worm
- Peach Twig Borer
- Aphids
- Mealybugs
- Peach Tree Borer
- Hickory Shuckworm

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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 row and I totally stand by it.

- **MATT PARKE, PARKESDALE FARMS**

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**37% INCREASE IN ALMOND HULL WEIGHT WITH VENERATE**

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Water Sprayed</th>
<th>Netted</th>
<th>Program with Venerate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hulling</td>
<td>0</td>
<td>30</td>
<td>0</td>
<td>30</td>
</tr>
</tbody>
</table>

Venerate XC applied at 2 quarts per acre
Hulled Nut Weight (gm), 5 branches per plot

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”**
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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