Increase marketable blueberry yield with Marrone’s uniquely powerful crop protection. Our award-winning biopesticides control insects, mites, and disease, sustainably. Backed by data from over 1500 trials, Marrone’s biological pesticides are safe for workers, consumers, and the environment.

**PROTECT BLUEBERRIES FROM:**
- Botrytis
- Spotted Wing Drosophila
- Nematodes
- Plum Curculio
- Mummy Berry
- And many more...

**GRANDEVO**

Grandevo® Bioinsecticide is an advanced bioinsecticide that suppresses or controls early insect populations, protecting your crop 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:**
- Tank Mix Program: apply 1-2 lbs/acre when tank-mixing with other insecticides
- Rotational Program: apply 2-3 lbs/acre when alternating with other insecticides

**KEY TARGET PESTS:**
- Aphids
- Spotted Wing Drosophila
- Armyworms
- Thrips
- Leafrollers
- Loopers

**GRANDEVO REDUCES SPOTTED WING DROSOPHILA BY 84%**

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Spinosad</th>
<th>Zeta-cypermethrin</th>
<th>Spinosad Grandevo Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Larvae per kg Fruit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
</tr>
</tbody>
</table>

**GRANDEVO VIRTUALLY ELIMINATES TWO SPOTTED SPIDER MITES**

<table>
<thead>
<tr>
<th></th>
<th>Feb. 10</th>
<th>Feb. 18</th>
<th>Feb. 25</th>
<th>Mar. 4</th>
<th>Mar. 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean # Mites/Leaflet Scale 0-20</td>
<td>6 6.5 7</td>
<td>16 18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampling Dates</td>
<td>Feb. 10</td>
<td>Feb. 18</td>
<td>Feb. 25</td>
<td>Mar. 4</td>
<td>Mar. 11</td>
</tr>
</tbody>
</table>

*All products are OMRI listed, except Haven.*
**REGALIA**

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:**
- Prevents disease by boosting plant self-defense
- Better yield and harvest quality for conventional and organic blueberries
- Late residue management from MRL exemption
- 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

**KEY TARGET PESTS:**
- Powdery Mildew
- Botrytis Blight
- Leaf Spot
- Bacterial Canker
- Mummy Berry
- Anthracnose

**REGALIA CONTROLS 89% OF MUMMY BERRY**

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Regalia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Mummies per Bush</td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>

**99.8% REDUCTION IN BOTRYTIS WITH REGALIA**

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Program with Regalia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Disease Incidence</td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>

Whatever we’ve done here for the last 6 or 7 years has worked and Regalia is the thing we’ve based it on... I appreciate being able to apply a chemical or fertilizer that’s helping my production but isn’t hurting me.

- HARLEY SOLTES, BOW HILL BLUEBERRIES

**GROWER VIDEOS**

[HEAR MORE ABOUT WHAT THIS BLUEBERRY GROWER HAS TO SAY ABOUT BIOLOGICALS AT: 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
- Quality control tested to ensure no human microbial pathogens
- Tolerance exempt--never worry about MRLs
- Multiple modes of action
  - Exoskeleton degradation
  - Ingestion
  - Molting interference

**BASIC USE INSTRUCTIONS:**
Apply 1-4 quarts per acre on a 7-day interval. Under heavy populations, Venerate XC can be rotated with other insecticides/miticides and can be tank mixed with contact or systemic insecticides/miticides. No limit on number of applications per season. No spray buffer needed.

“Towards the end of our season on our conventional side, the two-spots had gotten so bad. We’d thrown everything else we had at them, so I used Venerate to try to draw back the populations back and finish out the season. Going forward into another season Venerate will be the insecticide I go to for my organic side and it will be part of my conventional program as well.

—JOEL CONNELL, GRIMES FARMS

Haven® Sun Protectant contributes to a cooler canopy, reducing plant transpiration and blocking harmful solar radiation. It is a plant UV-B blocker without visible residue to scrub. For use on everything from tree fruit to nut crops, small fruit, fruiting vegetables.

**BENEFITS:**
- Leaves no visible residue on the fruit making harvest and makes 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 7-10 day interval.

“You can take a biological and do three or four applications for the same price as you can one traditional chemistry. I would challenge you to say that you won’t get better results if you use that as a program approach.

—JOSH YOUNG, CROP PROTECTION SERVICES, FL

**KEY TARGET PESTS:**
- Plum Curculio
- Fruitworms
- Blueberry Blossom Weevil
- Thrips
- Aphids

**HAVEN®**

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

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

**BASIC USE INSTRUCTIONS:**
Drip irrigation or micro-emitters: apply during growing season to established groves at rate of 1-2 gal/ac, min concentration of at least 0.05% v/v. Additional applications on 21-28 day interval to improve and maintain nematode control during the season. Initial application rate recommended at 2 gal/ac. Soil drench: apply to individual newly (trans)planted bushes at rate of 1-2% v/v. Do not exceed 2 gal/ac.

**KEY TARGET PESTS:**
- Root Lesion
- Dagger Nematode
- Other Parasitic Nematodes

"We’re seeing those that switched to organic production are surviving and selling and having a good market. By choice and by requirement of the USDA we use naturally-occurring products, biological products. They’re much gentler on the environment.

We’re right on a feeding waterway so everything we spray has a way of getting towards our food supply. I appreciate being in an environment where I’m applying a spray that is helping my production, but isn’t hurting me.

- HARLEY SOLTES, BOW HILL BLUEBERRIES"

<table>
<thead>
<tr>
<th>TIMING OF APPLICATION</th>
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</thead>
<tbody>
<tr>
<td>DORMANT</td>
</tr>
<tr>
<td>Majestene</td>
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<tr>
<td>Haven</td>
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