### Grape Disease Management 2013

**Target and growth stage**

<table>
<thead>
<tr>
<th>Growth Stage</th>
<th>Suggested Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Growth</td>
<td>Captan or Mancozeb + PM material</td>
</tr>
<tr>
<td>3-5th Growth</td>
<td>Captan or Mancozeb + PM material</td>
</tr>
<tr>
<td>10-12th Growth</td>
<td>Strobilurin or Mancozeb + PM material or DMI fungicide</td>
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<tr>
<td>Prebloom</td>
<td>Strobilurin or Mancozeb + PM material or Pristine alone</td>
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<tr>
<td>1st Postbloom (10-14 days)</td>
<td>Captan or Mancozeb or Phosphorous Acid + PM material</td>
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<tr>
<td>2nd Postbloom</td>
<td>Captan or Mancozeb or Phosphorous Acid + PM material</td>
</tr>
<tr>
<td>3rd Postbloom</td>
<td>Captan or Mancozeb + PM material</td>
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</tbody>
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**Notes**

- These applications are important only when warm wet conditions prevail and if the problem was severe in the previous season. A 7-10 day spray schedule should be followed until the target disease is risk has ended.
- Botrytis should be controlled during bloom in wet years. Fungicides include Elevate, Pristine, Scala, Strobilurin. Fungicides include: Abound, Flint, Pristine. These should not be used in more than two successive applications.
- The most critical timing for controlling fruit infections is from prebloom through the 2nd postbloom. Ensure that you emphasize uniform coverage and optimum rates for these applications. Do not skip or delay these applications.
- PM Materials: Powdery Mildew. There are a number of powdery mildew fungicides available. If sulfur is used remember that applications may need to be made more frequently.
- Continue the spray program emphasizing the diseases and conditions present.
## Mode of Action

- Benzimidazoles
- Dicarboximides
- DMI-fungicides
- PhenylAmides
- SDH Inhibitors
- Anilino Pyrimidines
- Qo I/Strobilurin
- Phenyldiazomethanes
- Hydroxyamidines
- Pyrimidines
- Pyracetamides
- Carbothoxy Acid Amides
- Pyridylnmethyl-Benzamide
- Quinone X Inhibitor
- Copper
- Sulfur
- Dithiocarbamates
- Phthalimides
- Dithane
- Ferbam
- Dithiocarbamates
- Phthalimides

### FRAC CODE

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### Efficacy

- **H** High risk for resistance
- **M** Moderate risk for resistance
- **ML** Low-moderate risk for resistance
- **U** As yet undetermined risk for resistance
- **L** Low risk for resistance

### Risk for resistance

- **M** Most members of this class are not effective
- **S** Some members of this class are effective
- **+** Most members of this class show activity

### Use Resistance Management – Alternate with low risk fungicides

- **Thiophanate Methyl**
- **Topsin-M**
- **Ridomil**
- **Abound**
- **Tanos, Flint**
- **Sovran**
- **Quadris Top**
- **Endura**
- **Pristine**
- **Switch**
- **Vanguard**
- **Inspire Super**
- **PH-D**
- **Captivate Elevate**
- **Quintec**
- **Zampro**
- **Presidio**
- **Forum**
- **Revsus Top**
- **Phites**
- **Gavel**
- **Ranman**
- **Captvate Elevate**
- **Elevate**
- **Champ**
- **Cuprofix**
- **Kocide**
- **Kumulus**
- **Thiolux**
- **Dithane**
- **Ferbam**
- **Penncozeb**
- **Ziram**
## Fungicide Mixtures

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Manufacturer/EPA Reg.</th>
<th>Common Name</th>
<th>FRAC Group</th>
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<tbody>
<tr>
<td>LUNA EXPERIENCE</td>
<td>Bayer CropScience 264-1091</td>
<td>Fluopyram, Tebuconazole</td>
<td>Group 7, Group 3</td>
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<td>INSPIRE SUPER</td>
<td>Syngenta Crop Protection, LLC 100-1317</td>
<td>Cypcodini1, Difenoconazole</td>
<td>Group 9, Group 3</td>
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<td>QUADRIS TOP</td>
<td>Syngenta Crop Protection, LLC 100-1313</td>
<td>Azoxystrobin, Difenoconazole</td>
<td>Group 11, Group 3</td>
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<td>PRISTINE</td>
<td>BASF Ag Products 7969-199</td>
<td>Boscalid, Pyraclostrobin</td>
<td>Group 7, Group 11</td>
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<td>DuPont Crop Protection 352-604</td>
<td>Cymoxanil, Famoxadone</td>
<td>Group 27, Group 11</td>
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<td>SWITCH 62.5WG</td>
<td>Syngenta Crop Protection, LLC 100-953</td>
<td>Cyprodinil, Fludioxonil</td>
<td>Group 9, Group 12</td>
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<td>REVUS TOP</td>
<td>Syngenta Crop Protection, LLC 100-1278</td>
<td>Difenoconazole, Mandipropamid</td>
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<td>SANCTION</td>
<td>Loveland Products, Inc. 34704-1040</td>
<td>Potassium phosphate, Sulfur</td>
<td>Group 33, Group M2</td>
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