**IPM Solutions for Wine Grapes (San Joaquin Valley)**

<table>
<thead>
<tr>
<th>Crop development</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dormant period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bud break</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veraison</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dormant period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Diseases**

- **Trilogy**
  - **Powdery mildew**
  - **Phomopsis cane and leaf spot**
  - **Black measles**
  - **Eutypa dieback**

Apply 1 gallon of Trilogy® per 100 gallons of spray (1% concentration) at any customary spray timing to control powdery mildew and *Botrytis*. For best results at lowest cost, use Trilogy up to bunch closure as part of a rotational program with other fungicides. Allow at least 3 days between Trilogy and sulfur applications.

- **Botrytis bunch rot**

If leaves are removed, *Botrytis* may be controlled with a single bloom application.

**Deliver®**

Apply Deliver® at 0.5 to 1 lb per acre for worm control. Make 2 applications, 10-14 days apart, starting prior to bunch closure. Repeat against subsequent larval generations (June - August) if necessary. Used alone, Deliver is most effective against small larvae before they roll the leaves. Deliver also can be mixed with Neemix® at 2 qt or Neemix® 4.5 at 8 oz per acre to enhance control of leaf rollers.

**Neemix®**

- **Omnivorous leaf roller**
- **Grape leaf roller**
- **Western grape leaf skeletonizer**

Applications directed against omnivorous leaf roller also control western grape leaf skeletonizer.

**Trilogy**

Apply Trilogy (1%) for disease control will also control spider mites and suppress leaf hoppers. Trilogy can also be applied specifically as an acaricide for knock-down of late season mite populations with zero PHI. Trilogy cannot be applied to table grapes after bloom or to wine grapes after bunch closure: Grape mealy bug: *Pseudococcus maritimus*. Obscure mealy bug: *Pseudococcus viburni*. Longtailed mealy bug: *Pseudococcus longispinus*.

*Control of these pests with Deliver will also provide control of Light Brown Apple Moth.*