



**LIVE Inc.**

Low Input Viticulture & Enology, Inc.

2008 Growing Season  
Passport

## Vine Protection Guidelines for the Willamette Valley

### KEY PESTS

**Diseases:**

Powdery Mildew (*Uncinula necator*)

Botrytis cinerea

**Mites:**

Localized Eriophyidae mites (Rust mite, Blister mite)

**Weeds:**

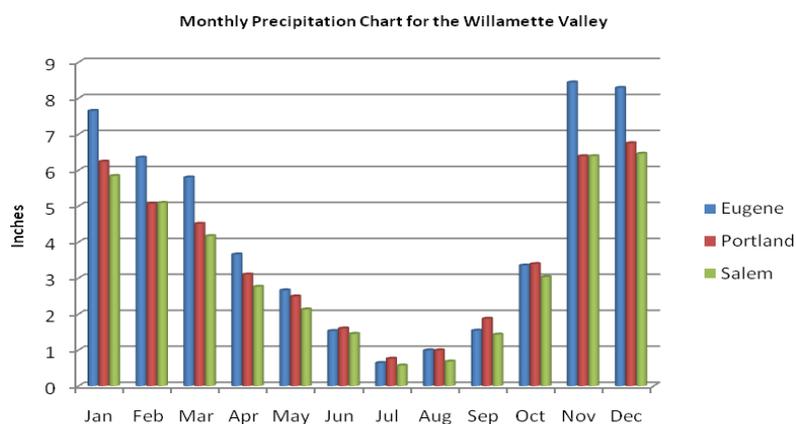
In vineyards with permanent green cover: None

*Contact Extension Service or Certified Crop Advisor for treatment of other disease or pest*

### KEY BENEFICIALS (to be protected)

*Predatory mites (Typhlodromus pyri)*

*Parasitoid/Predatory Complex:* An insect whose immature stages develop on or inside a single host eventually killing that host



**Other items of interest:**

The use of grafted planting material (American rootstock) against Phylloxera is recommended. Measures to control unlisted pests or new diseases may be applied only after consultation with Extension service or qualified farm advisor with training in sustainable agriculture.



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Green List

## Vine Protection Guidelines for the Willamette Valley

# GREEN LIST

### 1. INDIRECT PLANT PROTECTION MEASURES (PREVENTION)

#### Planning and preparing new plantations:

- ✓ Disease tolerant clones considered
- ✓ Existing hedges and grass strips retained
- ✓ Minimum of 5% compensation area reserved
- ✓ Patches of Hazelnut, Maple, Dogwood and/or roses within 50m of vineyard

#### Fertilization:

- ✓ Fertilizer applications are to be based on soil and tissue analysis
- ✓ Nitrogen to be applied between March 1<sup>st</sup> and September 30<sup>th</sup>
- ✓ Nitrogen input reduced to 10 lbs per ton of fruit harvested
- ✓ Green manure and composting should be used to improve fertility and soil humus

#### Soil, habitat and canopy management

- ✓ Total green cover in winter months
- ✓ Green cover in alleyways/restrict summer competition in vine rows
- ✓ Alternating mowing regime applied and permanent flower supply provided
- ✓ Limit number of shoot per foot (3 to 6 shoots) and maintain an open low density canopy
- ✓ Maintain a balanced open canopy with low leaf layer (1.5 leaf layer or less)
- ✓ Maintain a minimum of 10 different botanical species (15+ optimum)

#### Key beneficials

- ✓ Presence of predatory mites verified by specialist or introduction planned/carried out
- ✓ If a control method is needed the most selective method should be used first.
- ✓ Restrict use of products that are highly toxic to predatory mites.

### 2. MONITORING

- ✓ Existing economic thresholds of key pests known and applied
- ✓ Official forecasting services for pests and diseases known and utilized
- ✓ Presence of parasitoids monitored by specialist with yellow sticky traps

### 3. DIRECT PLANT PROTECTION MEASURES (CONTROL)

**Powdery mildew:** Fungicides pre-bloom group E-I

**Botrytis:** Fungicides A-D

**Weeds:** See herbicide list

**When in doubt, consult with [liveinc.org](http://liveinc.org) for additional advisory service information**

## LIVE Green and Yellow List Easy Referral Chart for Vine Protection

Cultural Control Methods

Chemical Control Methods



	Green list, preferred options			Yellow options, with restrictions	
	1	2	3	4	5
	<i>Prevention</i>	<i>Monitoring and decision making</i>	<i>Direct Control</i>	<i>Direct Control</i>	<i>Direct Control with Restrictions</i>
					<b>Prohibited Practices</b>
<b>General aspects</b>	<ul style="list-style-type: none"> <li>✓ Green cover, alternating mowing, hedges to enhance beneficials, low nitrogen input and open canopies</li> </ul>	<ul style="list-style-type: none"> <li>✓ Monitor vineyard for unusual symptoms</li> </ul>			
<b>Powdery Mildew</b>	<ul style="list-style-type: none"> <li>✓ Prevent excess vigor</li> <li>✓ Practice timely sucker and open canopy</li> </ul>	<ul style="list-style-type: none"> <li>✓ Use of appropriate temperature models when available</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fungicides starting at 6" of growth</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fungicides with restrictions</li> <li>✓ Fungicides E-G, I (Preventative)</li> <li>✓ Fungicides H (Curative)</li> </ul>	<ul style="list-style-type: none"> <li>✓ To avoid the development of resistance, do not spray the same chemical families consecutively</li> <li>✓ No more than 3 DMI applications allowed per season</li> <li>✓ Sulfur treatments restricted to 6 lbs per treatment and total of 45 lbs of actual sulfur per season</li> </ul>
<b>Botrytis</b>	<ul style="list-style-type: none"> <li>✓ Prevent excess vigor</li> <li>✓ Maintain open canopy and remove east side leaves after shatter</li> </ul>		<ul style="list-style-type: none"> <li>✓ Open Canopy</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fungicide A-D application post bloom and/or pre berry touch and/or at veraison</li> </ul>	<ul style="list-style-type: none"> <li>✓ Comply strictly with restrictions imposed by resistance management (limited number of treatments, avoidance of products of same resistance group).</li> <li>✓ More than 3 applications of botrytiscides from the same chemical family is prohibited</li> </ul>
<b>Weed Problem</b>	<ul style="list-style-type: none"> <li>✓ Planting cover crop</li> </ul>		<ul style="list-style-type: none"> <li>✓ Mechanical, hand hoeing</li> </ul>	<ul style="list-style-type: none"> <li>✓ Herbicides</li> </ul>	<ul style="list-style-type: none"> <li>✓ Diquat, Paraquat and all residual herbicides are prohibited</li> <li>✓ The use of chemical herbicides on more than 50% of vineyard floor is prohibited</li> </ul>
<b>Rust Mites</b>					<ul style="list-style-type: none"> <li>✓ Max 5lbs of sulphur at wooly bud, 5lbs 10 days later</li> </ul>