



**Establishing a  
Cultural Study Block  
for Wine Grapes**

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# Project Goals

- 1. During Establishment - Conduct a trial of weed management methods for organic wine grape vineyards**
- 2. Long Term - Establish a wine grape research block for future cultural studies**

# Background

- ∞ Demand for organic wines are increasing
- ∞ Weed control is the primary limiting factor in establishing a new organic vineyard
- ∞ W. WA Advisory Group has identified this as the top priority for vineyard establishment

# Plot Design

- 1. Replicated split plot, main plot is wine grape cultivar**
- 2. Cvs. In trial: Pinot Noir Precoce (red), Siegerrebe (white)**
- 3. Rootstock Couderc 3309**
- 4. 7 Treatments x 3 replications**

# **Weed control protocol**

- 1. Current methods used by organic growers reviewed and combined into a current best management practice**
- 2. Advisory group recommend other treatments based on reduced labor costs and suitability for different sites**

# Control Treatment

- 1. High mowing in alleys and under vines – early April**
- 2. Till and rotovate under vines – mid April**
- 3. Harrow if needed for quack grass control; periodic disking as needed**
- 4. Hill – late June to early July**
- 5. Disk, harrow and hill again if weedy - August**

# Proposed Treatments

- 1. Control**
- 2. Control but use Wonder Weeder for under-vine cultivation**
- 3. Control plus small grain cover crop seeded in late August yearly**
- 4. Control plus cover crop seeded in alleyway year 1, reseeded as needed each following year**
- 5. Control plus 1:1 small grain:clover cover crop seeded in fall**
- 6. Control plus 2:1 small grain :clover cover crop seeded in fall**
- 7. Degradable mulch in-row; grass-seeded alley, mow or till alleys as needed through the year**

# Data collection

- 1. Major weed species and cover crops**
  - counts**
  - percent ground cover**
  - dry biomass**
- 2. Vines**
  - shoots length and number**
  - bud number**
  - mean internode length**
  - trunk diameter**
  - pruning biomass (fresh weight)**

# Time Table

- 1. Vines planted in late May 2008**
- 2. Weed Control methods employed beginning at planting**
- 3. Vines trained using VSP method**
- 4. Data collected as previously described**
- 5. Results reported in winter of 2008-09**

# Expected Outcomes

- ☞ **Determine effective methods of weed control**
- ☞ **Identify the most cost effective method of weed control**
- ☞ **Publish results – newsletters, extension, journals**

# **Proposed Future Trials**

- 1. Pest management**
- 2. Plant Nutrition**
- 3. Improving fruit quality**

# **Pest management**

- 1. Botrytis**
- 2. powdery mildew**
- 3. yellow jacket control**
- 4. weed management**

# **Plant Nutrition**

## **1. Fertilizer amendments**

**granular**

**injected**

**foliar**

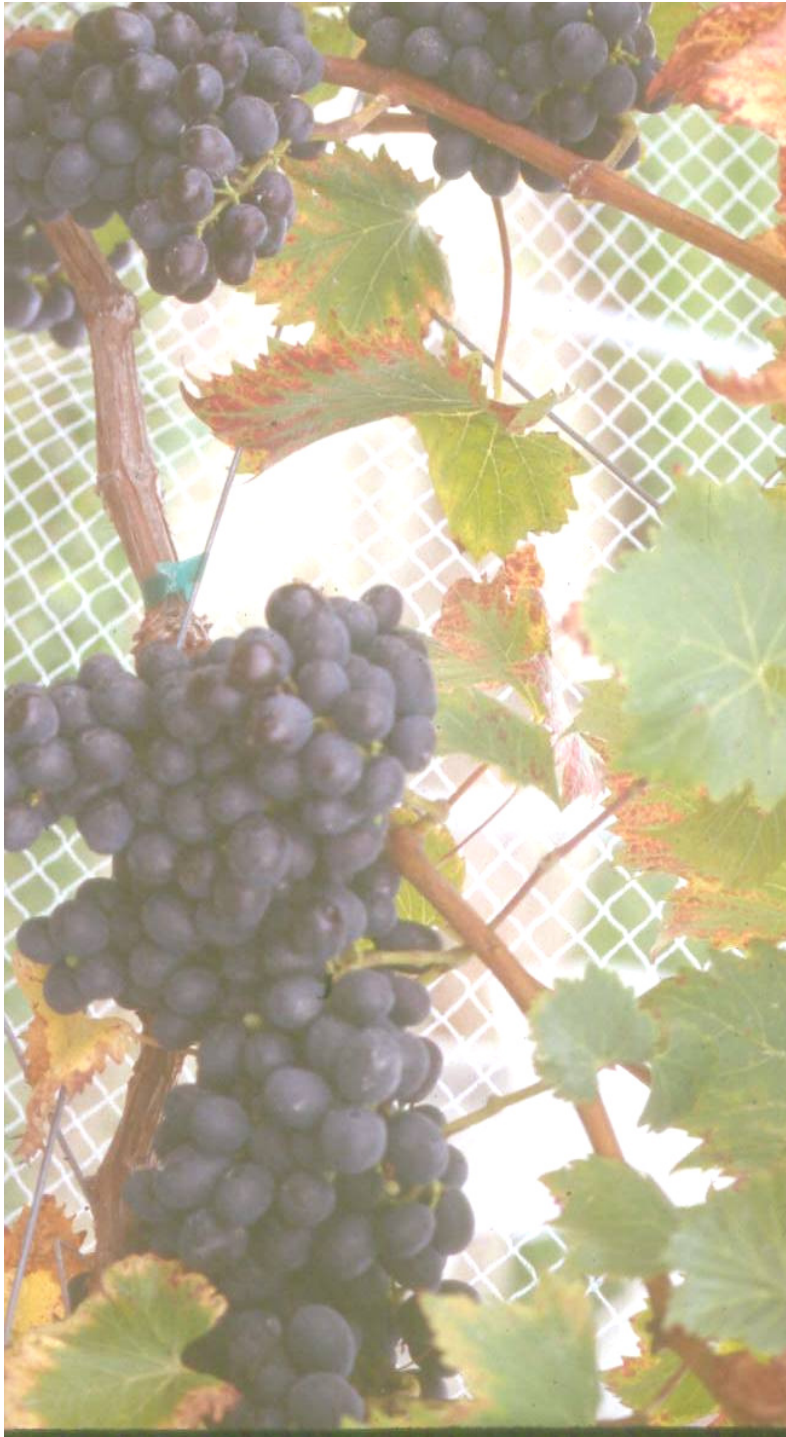
## **2. Cover crops**

**legumes and grasses**

**companion crops**

# Fruit Quality

- 1. Crop load management  
cluster thinning**
- 2. Leaf removal  
timing**
- 3. Hedging  
timing**



# Cooperators

☞ **Brent Charnley,  
Lopez Island Vineyards  
& Winery**

☞ **Mercy Olmstead,  
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