

# California Grape Pest Management Alliance

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*PMAC Meeting*

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# Grape PMA Background

- Funded by CA Dept Pesticide Regulation \$184K Pest Mgt Alliance Grant (Jan 2008 – May 2010)
- **Goal = Increase use of economically viable practices that decrease pesticide risks in CA grape production**
- Champions = CA Sustainable Winegrowing Alliance, Sun-Maid Growers, and Grape & Tree Fruit League

# Process to Achieve Goal

Application of the Sustainable Winegrowing  
“**Cycle of Continuous Improvement**” to  
winegrapes, raisins, and table grapes

# Sustainable Grape Growing

Growing and winemaking practices that are sensitive to the **E**nvironment, responsive to the needs and interests of society-at-large (social **E**quity), and **E**conomically feasible to implement and maintain = **3 E's** or **Triple Bottom Line**

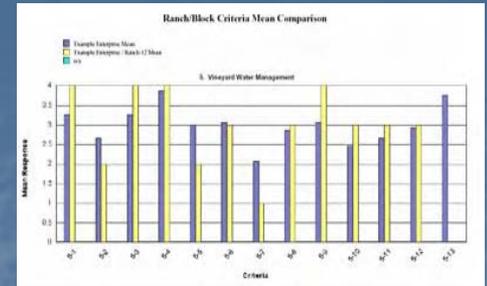


**“Future Generations”**

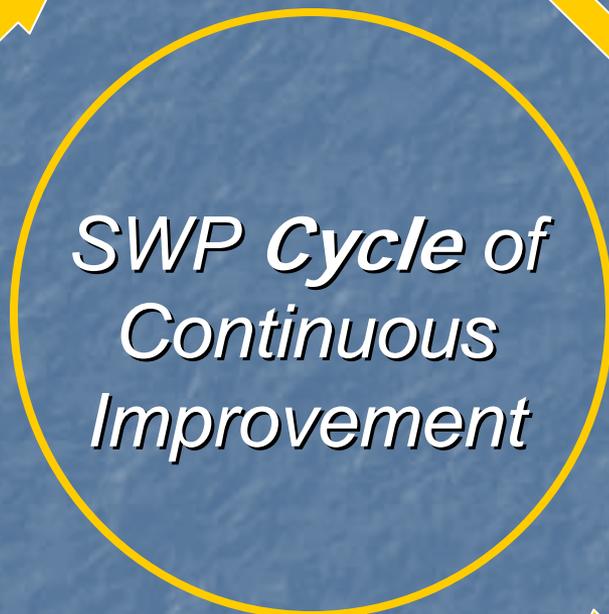


pest monitoring

# Self Assess



custom report



*SWP Cycle of Continuous Improvement*

# Interpret Performance

targeted education



# Develop Action Plan to Improve

ACTION PLAN				
Standard / Element	Criteria Number	Criteria and Item of Criteria	Plan of Action	Responsible for Action
Pest Management	Criteria 1-1	Visual Monitoring for Insect and Mite Signs	Monitor every two weeks.	Personnel for Action
Pest Management	Criteria 1-2	Category 1: We maintain a variety of our treatment.	3. Specify the time and zone area of treatment.	Sustainability
	Criteria 1-3	Resistant Emergence Resistance Data	4. Create a schedule, measurable for carrying out the action.	
Pest Management	Criteria 1-4	Category 2: I maintain minimum legal requirements or less for a pesticide emergency response plan.	5. Contact by "contaminator" or other a special emergency response plan that how to make it work on my ranch, from both tractor drivers, pest plan by the sprayer till up.	

action plan

# Implement Change

**Key = data collected via self  
assessment drives other cycle  
elements**

# Self-Assess Workbook

- **Viticulture**
- Soil Management
- **Vineyard Water Management**
- Pest Management
- **Wine Quality**
- Ecosystem Management
- **Energy Efficiency**
- Winery Water Conservation & Quality
- **Material Handling**
- Solid Waste Reduction & Management
- **Environmentally Preferred Purchasing**
- Human Resources
- **Neighbors & Communities**
- Air Quality



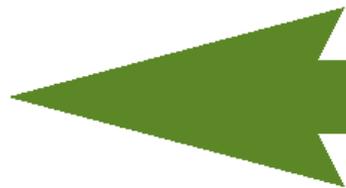
# Workbook Framework

227 criteria with 4 categories of practices

## SOIL MANAGEMENT - TILTH

CRITERIA	CATEGORY 4	CATEGORY 3	CATEGORY 2	CATEGORY 1
<p><b>4-8 Organic Matter</b> (Skip if organic matter sufficient for your soil type)</p>	<p>A combination of organic matter is added to the soil <b>annually</b> (e.g. permanent or annual cover crop, compost, and/or manure) <b>And</b> Tillage is reduced or eliminated to lower the rate of organic matter breakdown.</p>	<p>Some form of organic matter is added to the soil <b>annually</b> (e.g. annual cover crop, compost, manure, or a combination of cover crop and manure or compost).</p>	<p>Resident vegetation is allowed to grow in the winter.</p>	<p>No organic matter is added to the soil other than what the vine produces, and resident vegetation is minimized in the winter <b>And</b> The vineyard is clean tilled.</p>

*Organic matter improves soil tilth and structure, improves aeration and infiltration, increases water-holding capacity, buffers soil pH, increases the availability of micronutrients, provides a source of plant nutrients, and feeds beneficial micro-organisms*

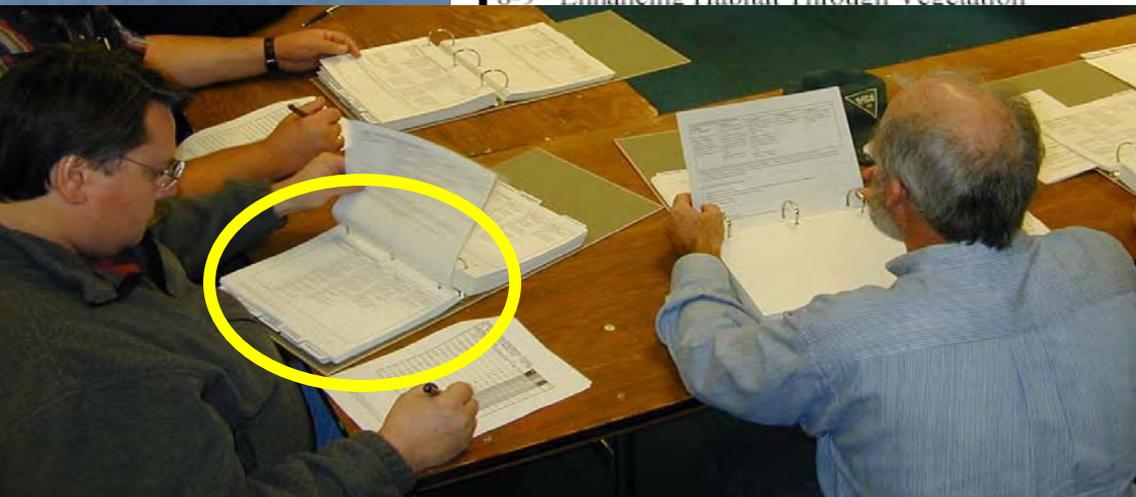


**INCREASING SUSTAINABILITY**

# Self Assessment

## SUMMARY EVALUATION SHEETS – VINEYARD & WINERY

8. ECOSYSTEM MANAGEMENT	V/W	Pg #	4	3	2		N/A
8-1 Defining the Resource Base to be Managed	V&W	8-7			√		
8-2 Developing a Sustainability Strategy in the Context of Ecosystem Management	V&W	8-9		√			
8-3 Ecosystem Processes – Water Cycle	V&W	8-11			√		
8-4 Ecosystem Processes –Mineral Cycles	V&W	8-13					√
8-5 Ecosystem Processes – Energy Flow	V	8-15					
8-6 Ecosystem Processes – Community Dynamics	V	8-17					
8-7 Bioregions	V&W	8-18					
8-8 Watershed Management	V&W	8-21					
8-9 Enhancing Habitat Through Vegetation	V	8-23					
	V	8-26					
	V&W	8-27					
	V	8-30					
	V	8-32					
	V	8-34					
	V	8-37					
	V&W	8-43					





# CALIFORNIA SUSTAINABLE WINEGROWING ALLIANCE

## Home

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SWP PARTICIPANTS



## California Sustainable Winegrowing Program

**Benefiting the environment, the community and high quality grapes and wine.**

**"The beauty of the California Sustainable Winegrowing Program is its simplicity: a couple of hours for the self-assessment questions, then you review the results and pick the areas that you want to improve first. With the new, on-line version, it is even quicker and easier."**

**Bill Cooper**

CSWA Board Member - Cooper-Garrod Vineyards

### New: How Sustainable is Your Operation?

#### Do an Online Self-Assessment!

To self-assess your vineyard and/or winery operations using the second edition workbook online, generate your own customized sustainability reports to identify areas of strength and opportunities for improvement, and take advantage of other benefits of participation, visit our [Online Self-Assessments](#).

(Only California vintners and growers may self-assess online.)

### Attend an Upcoming Workshop!



To find a workshop in your area to assess or reassess your operation and to learn more about specific practices, visit our [Workshop Calendar](#).

# Assessment Data (as of 11/6/09)

## Winegrape Vineyards *statewide*

Participating Vineyard Organizations	1,237 organizations	
Acres Farmed by the 1,237 Organizations	358,121 acres	68.1% of 526,000 statewide acres
Acres Assessed by the 1,237 Organizations	241,325 acres	45.9% of 526,000 statewide acres
Organizations Submitting Results	868 organizations	70.2% of 1,237 organizations
Assessed Acres in Database	206,899 acres	39.3% of 526,000 statewide acres

# Means for Achieving Goal to Reduce Pesticide Risks in CA Grape Production

## Extension of elements of “Cycle of Continuous Improvement”

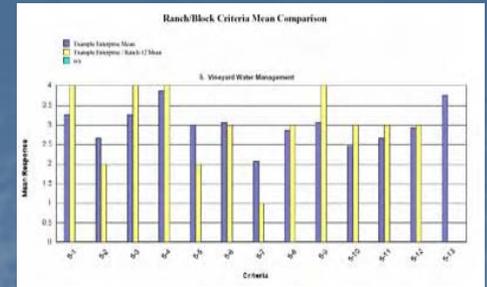
Obj 1: Sort educational priorities by ranking relevant criteria according to winegrower performance (apply to each sector)

Obj 2: Educate growers re: lower-risk practices for prioritized criteria & related regional issues (demo vineyards & events)

Obj 3: Document project impacts via self-assessment/surveys & commodity specific reports



pest monitoring



custom report

**Self Assess**

*Project impacts*

*educational priorities*

*SWP Cycle of Continuous Improvement*

**Implement Change**

**Interpret Performance**

*targeted education*

**Develop Action Plan to Improve**

action plan

Worksheet / Chapter	Activity Number	Activity and Intended Outcome	Plan of Action	Responsible for Activity
Pest Management	Criteria 1-1	Visual Monitoring for Insect and Mite Pests	Monitor every two weeks.	Host growing season
	Criteria 2	We maintain a variety of cover crops.	1. Determine an appropriate plan of action. 2. Specify the time and zone area of concern. 3. Create a suitable, suitable for carrying out the action.	Responsibility
Pest Management	Criteria 3-1	Biological Control Agents	1. Contact by "consultant" or other a regional emergency response plan that has to make it work on my ranch, from both insecticide and pest plan by the grower till up.	Responsibility
	Criteria 4-1	Prevention measures and how for a pesticide emergency response plan		



# Grape PMA Progress

# Means for Achieving Goal to Reduce Pesticide Risks in CA Grape Production

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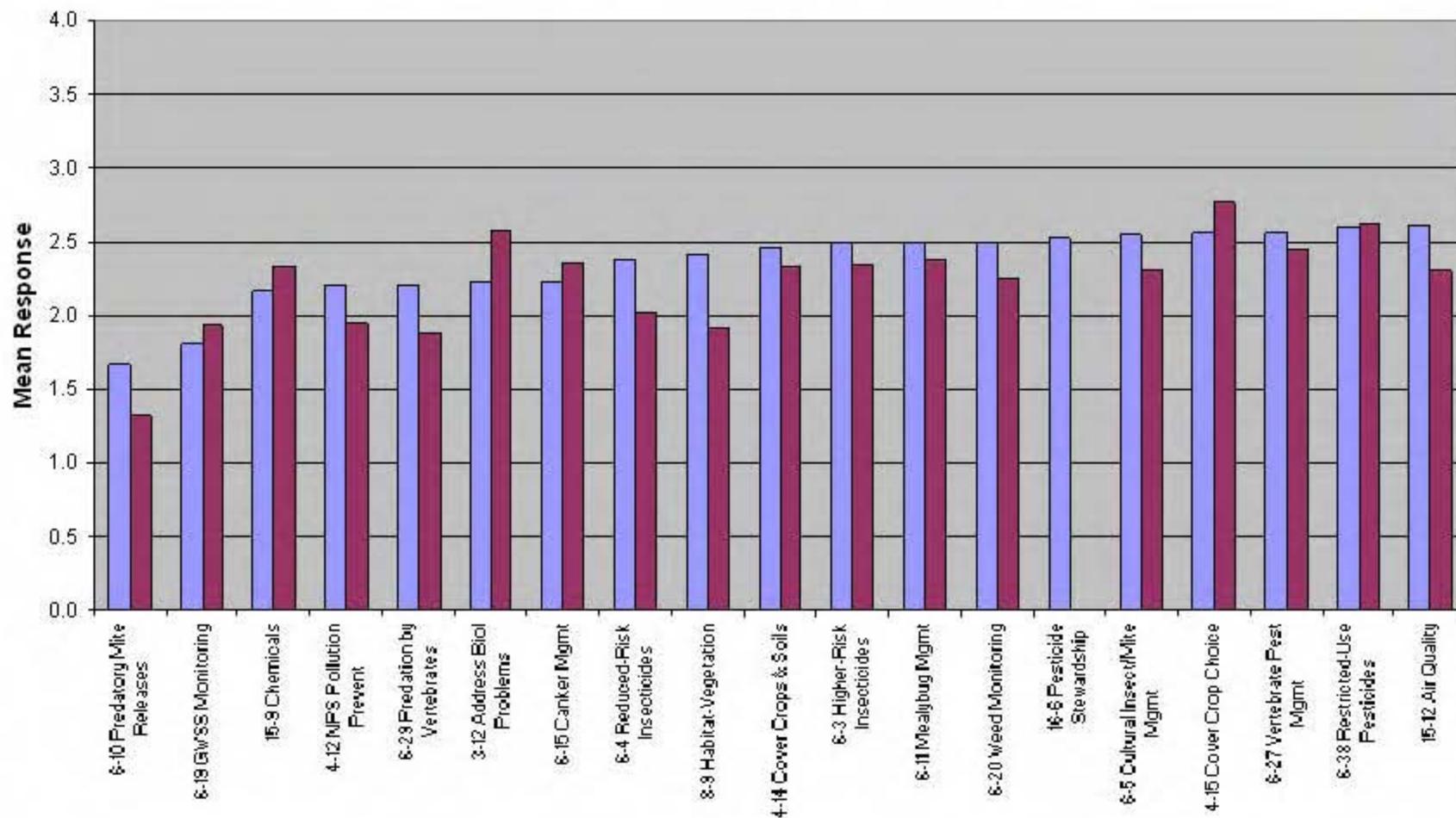
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# 56 Criteria from 7 Workbook Chapters

- Pest Management (38 criteria)
- Viticulture (3 criteria)
- Soil Management (3 criteria)
- Vineyard Water Management (1 criteria)
- Ecosystem Management (7 criteria)
- Air Quality (2 criteria)
- Neighbors and Community (2 criteria)

## Central Valley- Pesticide Risks to Air & Water Criteria ranked by Winegrower Performance (a)

■ Oct 2004-Apr 2008   
 ■ Nov 2002-Sep 2004



# Means for Achieving Goal to Reduce Pesticide Risks in CA Grape Production

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# Grape PMA Educational Events *to date*

<b>Region</b>	<b>Events</b>	<b>Demo Vineyards</b>
San Joaquin Valley (multi-sector)	17	11
North Coast	11	5
San Francisco Bay	1	1
South Coast	1	0
<b>TOTAL</b>	<b>30</b>	<b>17</b>

# Targeted Education



# Targeted Education



# Targeted Education





# Potential Impacts of Pest Management Practices

pest populations

natural enemies

economics

human resources



crop growth/develop

neighbors/community

pest resistance/  
resurgence



energy consumption

air quality

water quality

soil integrity &  
conservation

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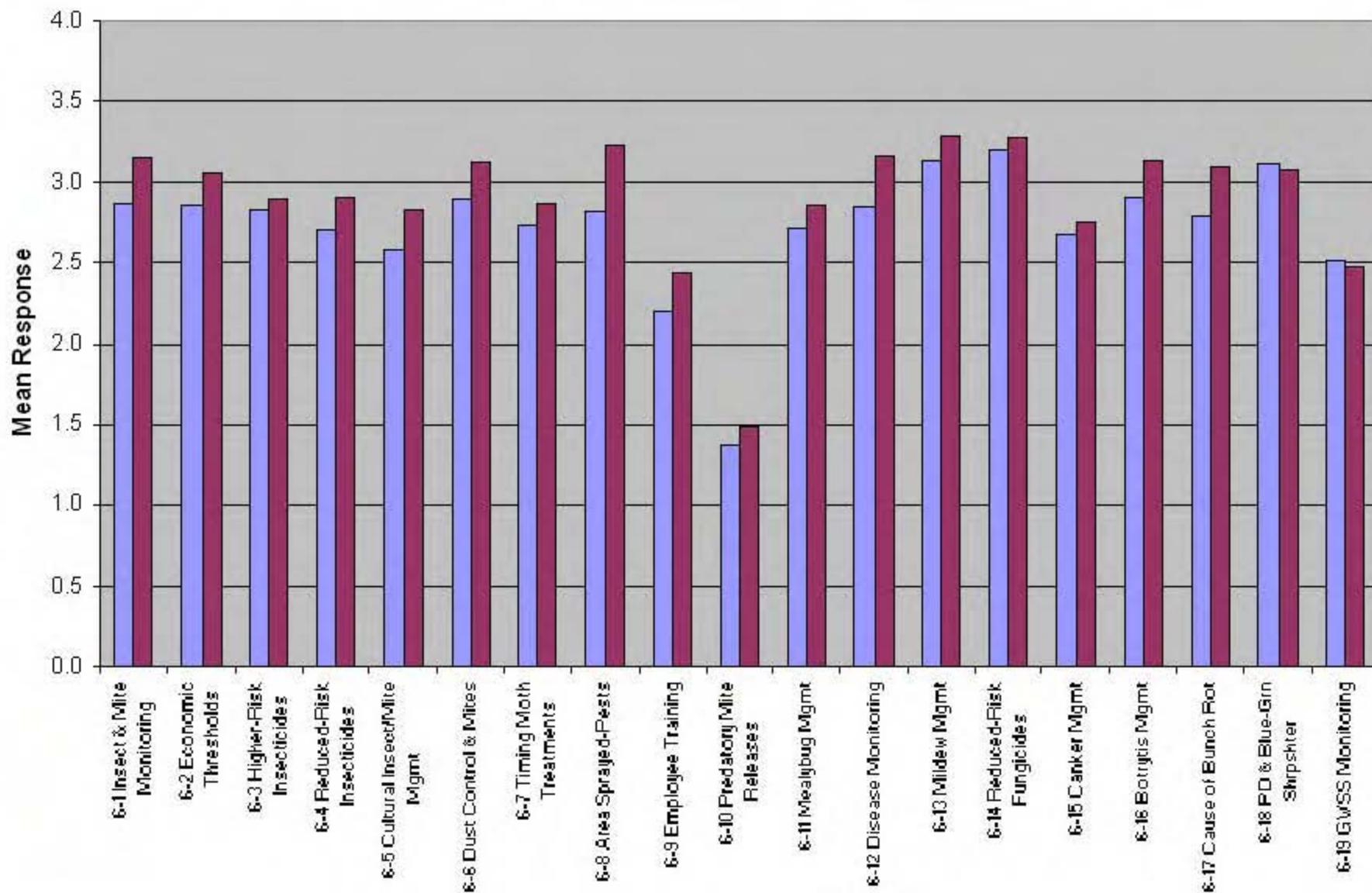
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## Chap 6 Pest Management - Statewide Performance for Vineyards

■ Nov 2002-Sep 2004 (n = 662; 134,165 acres) 
 ■ Oct 2004-Mar 2009 (n = 553; 132,147 acres)



# Next Key Steps

- Conduct additional targeted education activities across grape sectors
- Advance self-assessment methods with table grape and raisin growers and document impacts by grape sector
- Integrate pesticide-risk metrics/calculators into educational activities
- Assist other agricultural sectors in developing sustainability initiatives based on the continuous improvement model

