Agricultural Outlook Forum
U.S. Department of Agriculture

Presented: February 26-27, 2009

E. and J. Gallo Winery:
"Maintaining Green" The Long History of the Environmental and Sustainability Movement within
the Wine Industry

Chris Savage

E&J Gallo Winery

"Maintaining Green"

The Long History of The Environmental and Sustainability Movement within the Wine Industry

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About E. & J. Gallo Winery

- $5,000 and a dream … E. & J. Gallo Winery was established in 1933 in Modesto, California, by two brothers, Ernest and Julio.

- Today, E. & J. Gallo Winery is the largest family-owned winery in the world and it is the second largest winery in the world in terms of volume.

E. & J. Gallo Winery Today

- Sixteen members of the Gallo family, spanning the second, third and fourth generations, are involved in the business led by Joseph Gallo, president and CEO.

- Gallo owns more than 17,000 acres of vineyards and 7 wineries across the state of California.

- Distributes 45 Gallo brands in the U.S. and 26 brands internationally.

- Largest exporter of California wine selling wine in more than 90 countries.

Gallo.
Import/Export

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Did you know?

- California is the world's fourth largest wine producer

- Accounts for 90% - 95% of all U.S. wine produced and two-thirds of all wine sold in U.S.

- Industry comprised of 2,700 bonded wineries and 4,600 winegrape growers

- Provides a $51 billion economic impact for the state and accounts for 309,000 jobs in CA

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Wine Savvy

- **More than 100 grape varieties in state**

- **Top selling: Chardonnay, Cabernet, White Zinfandel, Merlot, Syrah**

- **Fastest growing: Pinot Grigio/Gris, Pinot Noir, Riesling, Syrah, Zinfandel, Rosé**
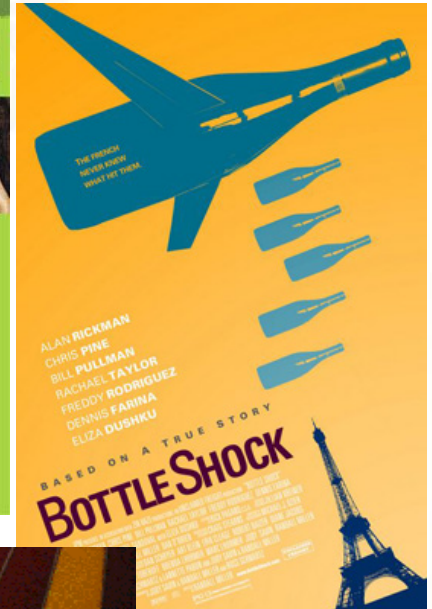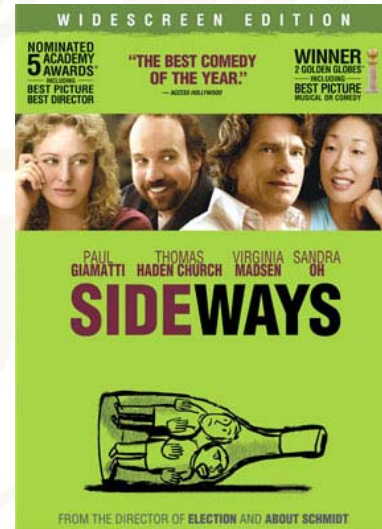
Partnership with California Tourism

- **National campaign to promote California wine and food launched in 2008**

- **Campaign features television, print, PR, events and website**

- **TV spot features Governor and First Lady along with wine and food personalities**

California Shipments

CALIFORNIA WINERY SHIPMENTS [1]
(In millions of gallons)

Year	California Winery Shipments to All Markets in the U.S. and Abroad	California Winery Shipments to the U.S. Market
2007	554.4	456.7
2006	539.9	447.9
2005	532.8	441.2
2004	521.7	428.2
2003	493.5	417.0
2002	464.3	401.0
2001	449.1	387.0
2000	445.9	392.0
1999	443.1	397.0
1998	432.5	385.0

1 Includes table, champagne/sparkling, dessert, vermouth, other special natural, sake and others. History revised.
Excludes foreign bulk shipped by California wineries. Source: Gomberg-Fredrikson & Associates and Wine Institute.

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Value of US Wine Sales

WINE SALES IN THE U.S.—1991 to 2007 in millions of gallons
(Wine shipments from California, other states and foreign producers entering U.S. distribution)

Year	Table Wine[1]	Dessert Wine[2]	Sparkling Wine/ Champagne	Total Wine	Total Retail Value
2007	650	62	33	745	$30.0 billion
2006	628	57	32	717	$27.8 billion
2005	609	52	31	692	$25.8 billion
2004	589	45	31	665	$24.0 billion
2003	570	40	29	639	$22.3 billion
2002	552	37	28	617	$21.8 billion
2001	512	34	27	574	$20.3 billion
2000	507	33	28	568	$19.2 billion
1999	475	31	37	543	$18.1 billion
1998	466	31	29	526	$17.0 billion
1997	461	29	29	519	$16.1 billion
1996	439	31	29	500	$14.3 billion
1995	404	30	30	464	$12.2 billion
1994	394	33	31	458	$11.5 billion
1993	381	35	33	449	$11.0 billion
1992	405	37	33	476	$11.4 billion
1991	394	39	33	466	$10.9 billion

Sources: Volume—Wine Institute, Department of Commerce, Estimates by Gomberg, Fredrikson & Associates. Preliminary.
Totals may not add up due to rounding. Excludes exports. History revised because of updated TTB reports.
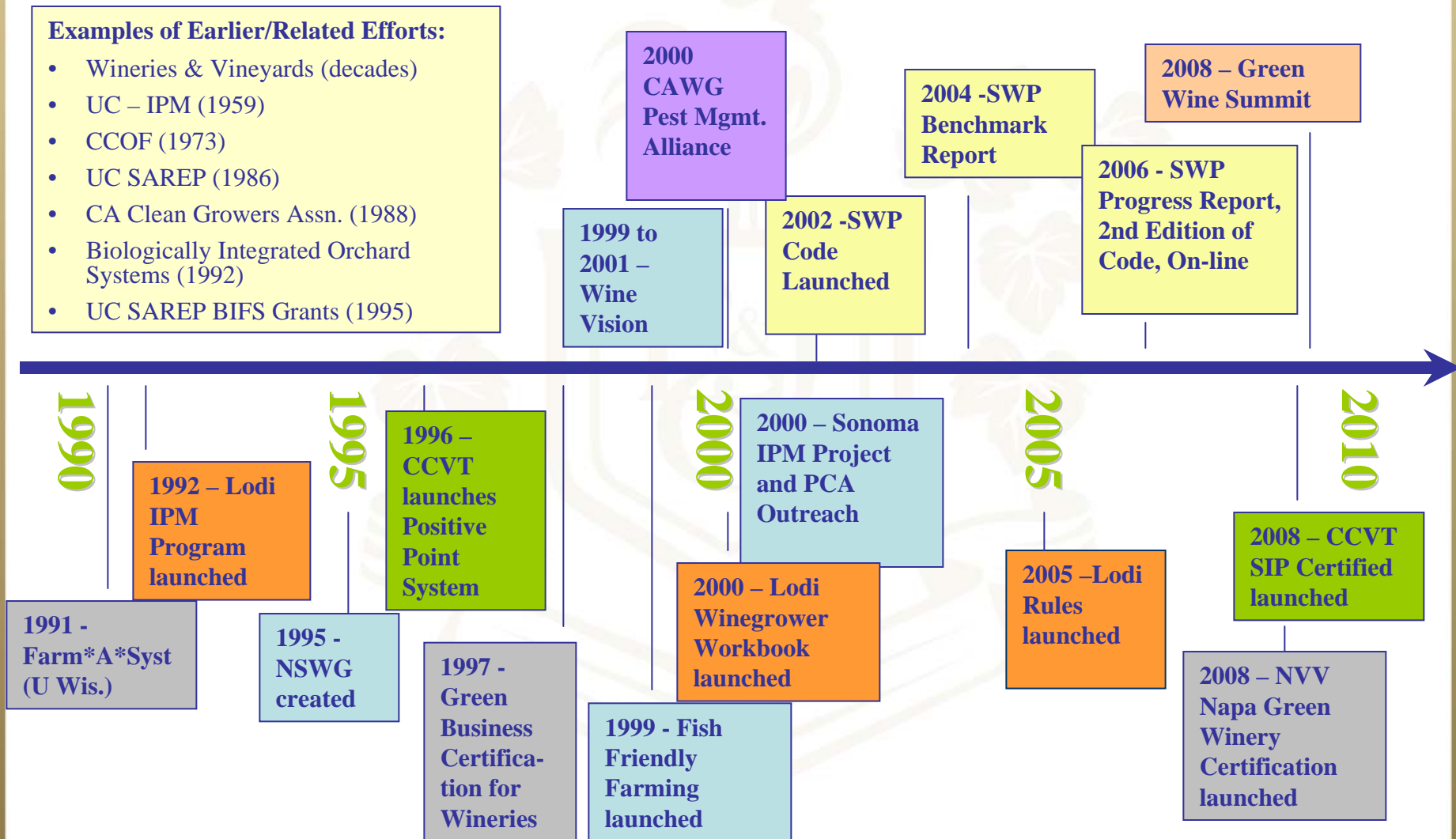
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The Wine Industry's Green History

THE GREEN WINE TIMELINE

Examples of Earlier/Related Efforts:

- Wineries & Vineyards (decades)
- UC – IPM (1959)
- CCOF (1973)
- UC SAREP (1986)
- CA Clean Growers Assn. (1988)
- Biologically Integrated Orchard Systems (1992)
- UC SAREP BIFS Grants (1995)

2000 CAWG Pest Mgmt. Alliance

2008 – Green Wine Summit

2004 -SWP Benchmark Report

1999 to 2001 – Wine Vision

2002 -SWP Code Launched

2006 - SWP Progress Report, 2nd Edition of Code, On-line

1990

1995

2000

2005

2010

1996 – CCVT launches Positive Point System

1992 – Lodi IPM Program launched

2000 – Sonoma IPM Project and PCA Outreach

1991 - Farm*A*Syst (U Wis.)

1995 - NSWG created

2000 – Lodi Winegrower Workbook launched

2005 –Lodi Rules launched

2008 – CCVT SIP Certified launched

1997 - Green Business Certifica-tion for Wineries

1999 - Fish Friendly Farming launched

2008 – NVV Napa Green Winery Certification launched

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ORGANIC AND BIODYNAMIC

- **Organic**
  - CA - over 9,000 wine grape type acres in CA are certified organic
  - Much of the fruit is used by wineries that label wines "organic" or "made with organically grown grapes"
  - Both made with grapes grown without synthetic fertilizers, pesticides, herbicides or fungicides for a period of at least 3 years with third-party inspection
  - Organic term and requirements for growing grapes organically defined legally by the National Organic Program

- **Biodynamic**
  - About 38 CA wineries certified biodynamic by Demeter USA
  - Methods are based on principles developed in 1920's by Austrian philosopher Rudolf Steiner
  - Holistic system where soil is nurtured through natural remedies, and planting, harvesting and bottling take place according to the positions of the planets and lunar phases. Natural animal, vegetable matter, homeopathic herbal and mineral preparations are added to the soil.

Sustainability
Biodynamic
Organic

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SUSTAINABLE, ORGANIC & BIODYNAMIC
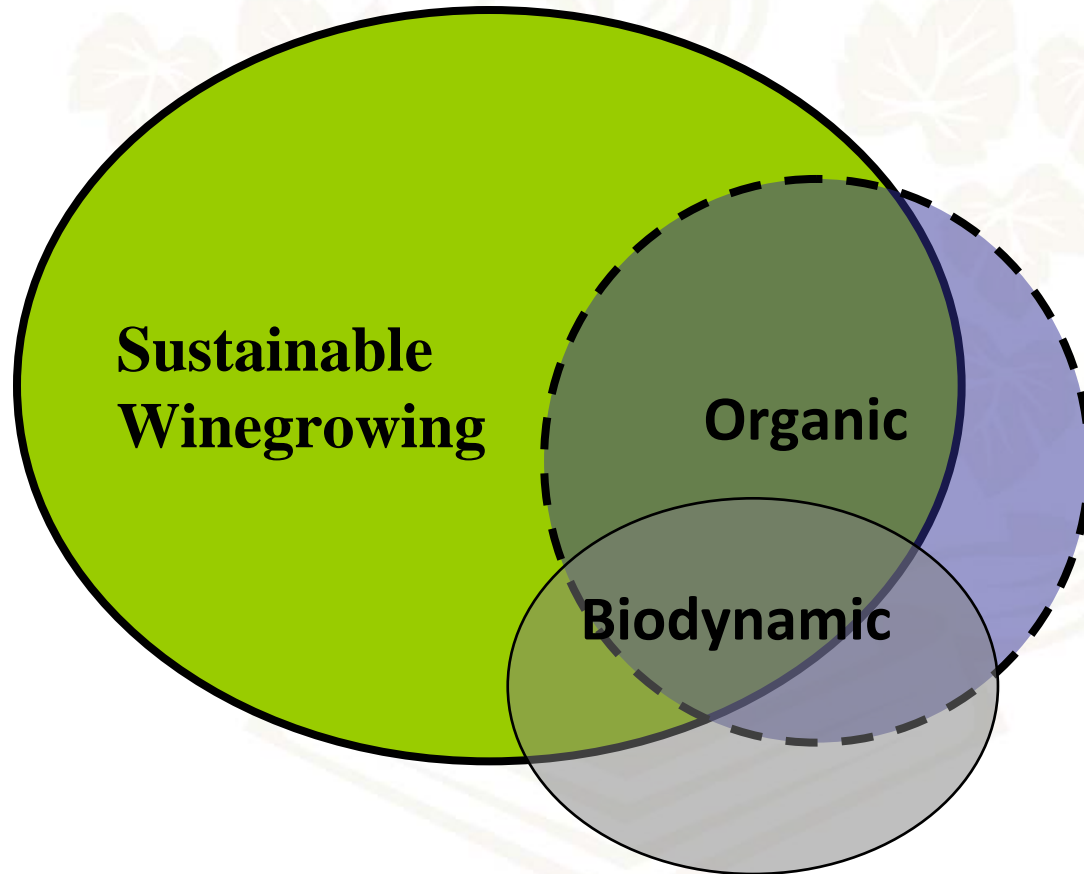
Sustainable Winegrowing

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

"Future Generations"

Public Policy & Market Landscape

Air

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77 % "important ... environ... pr... G...

Cusco...

Wal-Mart Packaging S...

Sustainabil...

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...e carbon

SPECIAL REPRINT
Wine Spectator
www.winespectator.com
WINE GOES GREEN
West Coast Vintners Fight for The Environment
ALL ABOUT BORDEAUX:
• 2006 Barrel Tasting
• Complete Traveler's Guide
Zinfandel Quality Upsurge
More Than 1,100 Wines Rated

CA Sustainable Winegrowing Program (SWP)

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Code of Sustainable Winegrowing

- 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

California SWP

- **Leveraged existing efforts (regional and statewide)**

- **Formed 50 member Joint Committee of WI & CAWG (2001)**

- **Published SWP Workbook (2002; online and 2nd edition 2006)**

- **Worked with key partners: regional associ government agencies, universities & NGOs**

California SWP

- **Formed CA Sustainable Winegrowing Alliance (2003)**

- **Held more than 200 self-assessment and targeted education events throughout CA**

- **Published 2004 Sustainability Report and 2006 Progress Report**

- **Leveraged more than $2.6 Million in Grants**

SWP Continuous Improvement

1300+ participants in self-assessment

Sustainability Reports

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2004 Benchmark Report… Results

Relative Strengths and Opportunities

STRENGTHS
- Viticulture
- Soil Management
- Wine Quality
- Ecosystem Management

MIDDLE GROUND
- Vineyard Water Management
- Pest Management
- Winery Water Conservation & Quality
- Human Resources
- Neighbors & Community

MOST OPPORTUNITIES
- Energy Efficiency
- Material Handling
- Solid Waste
- Environmentally Preferred Purchasing

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Targeted Education

- **IPM 2004+** **(AFT, DPR)**
- **Ecosystem Management 2005+** **(NFWF)**
- **Air and Water Quality 2006+** **(NRCS)**
- **Risk Management** **(RMA)**
- **Energy Efficiency 2005+** **(PG&E)**
  – **Energy Efficiency 101**
  – **Green Building**
  – **Winery Water and Energy**
  – **Climate Change**
- **GHG and Other Web-based Tools** **(NRCS)**

5000+ participants in targeted ed events

SWP Participation - 2004 Report to Present
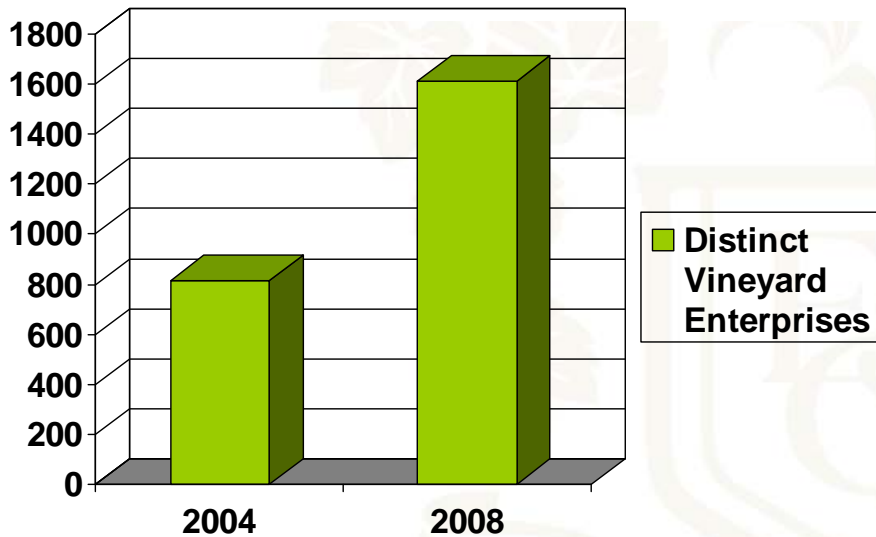
More than double!
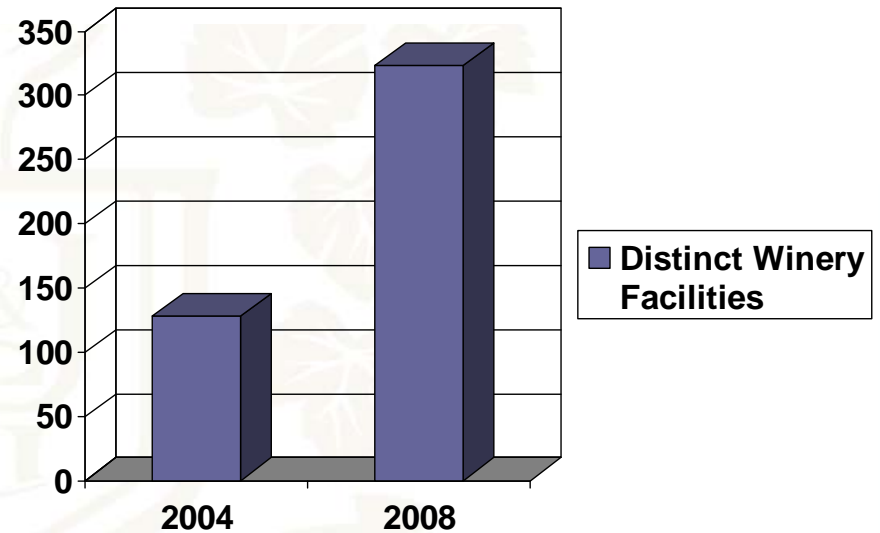
More than 150%!

1,934 total distinct enterprises and facilities

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WHAT MAKES CA SWP UNIQUE?

- **Level of participation**
  - Self-Assessment: 1,256 vineyard and winery organizations (1,482 individual participants) – representing >329,000 acres of winegrapes (63% of total) and 141.5 million cases of wine (59% of total)
  - Targeted Education: 5,500 participants

- **Multi-stakeholder partners**
  - Enhance credibility of the SWP Code
  - Leverage expertise and resources

- **Progress reports**
  - Set targets and timetables for continual improvement
  - Ensure transparency of self-assessment and process

- **Recognized leader in sustainable winegrowing**
  - Governor's Environmental and Economic Leadership Award (2004); Edmund G. "Pat" Brown Award (2005)
  - Growing media attention

Wine Industry GHG Protocol

International Partners: Wine Institute, New Zealand Winegrowers
Winemakers' Federation of Australia,
South African Wine and Spirit Board

Credible, free, easy to use, wine industry specific tool for GHG accounting needs:
• Operational tracking
• Market access
• Regulatory requirements
• Carbon credit accounting

www.wineinstitute.org/ghgprotocol

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Winery Water Guide
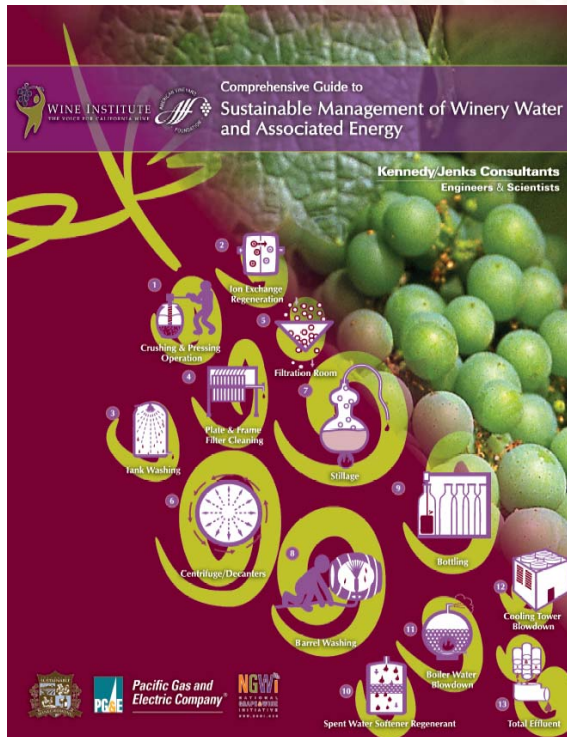
Tools for self-assessment & improvement:
- Reduced water use for cleaning and sanitation
- Minimize use of cleaning products and chemicals
- Decrease volume and strength of wastewater
- Minimize water and energy for heating and cooling
- Optimize effectiveness of land application systems for wastewater treatment

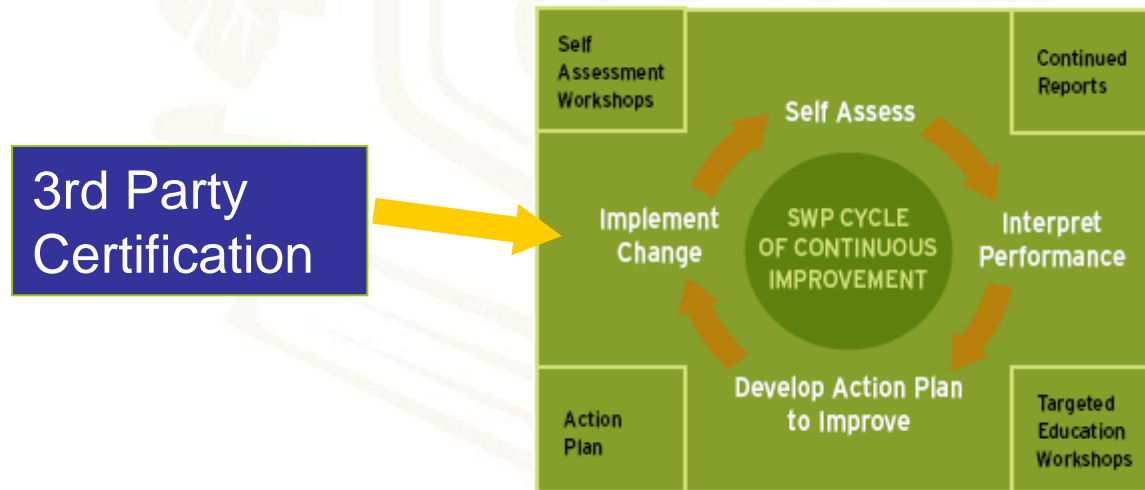Partners: Wine Institute, AVF, NGWI, CSWA, and PG&E

www.wineinstitute.org/winerywaterguide

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SWP Certification

- **Developing voluntary third-party verification option**

- **Maintain California's global leadership position**

- **Enhance credibility with key stakeholders**

USDA Ag. Forum Tie-in

National Grape and Wine Initiative

To create a program to triple the economic impact of the U.S. grape industry by 2020 to $500 billion by identifying and efficiently completing relevant, high quality research

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How Does NGWI Benefit the Wine and Grape Industry?

- Sets national research priorities

- Integrates NGWI priorities in USDA research work plans

- Works to secure increased funding to accomplish research needs

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Critical Elements

- Focus research and talent on the most critical national priorities, maintaining capacity to address long-term issues, while delivering results to address pressing industry questions.

- Drive greater efficiency and effectiveness of existing funding institutions through identification of centers of excellence and key partners.

Grape Industry Support of Specialty Crop Research Initiative Approach

- Not "business as usual"
- Systems approach; integrated
- Like NGWI, multi-state, multi-institutional, MULTI-DISCIPLINARY
- Social scientist engagement
- Bewick "We're trying to approximate the speed of business…"

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NGWI "GRO" Committee

- Grape Research & Outreach Committee is developing key issues for a <u>Voluntary Research Agreement</u>

- Similar to a marketing order, but technically a contract, signed at will, and enforced by USDA

- AMS is currently drafting the agreement based on our input

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Key elements:

- VOLUNTARY

- Research only

- Will maintain geographic distinction and utilization representatives

- Since agreements only cover "handlers", this definition will be key

- Hope to have agreement for signatures within 18 months

Sustainable Practices
Projects Currently Underway

1. Determine, characterize and <u>quantify the impact</u> of current wastewater management, water and energy conservation practices to support accurate information exchange within the regulatory arena.

2. Develop plans for the reduction of fixed dissolved solids (FDS) in winery and grape process waste water through the reformulation of cleaning chemicals to reduce and/or eliminate FDS.

3. Integrate grape growing and grape processing research and extension into on-going ARS/CSREES programs addressing climate change (effect on growing regions) and environmental assessment.

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Thank You!