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

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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.
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
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

*(In millions of gallons)*

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

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.
# 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)*

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

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.
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)
- UC SAREP BIFS Grants (1995)

1991 - Farm*A*Syst (U Wis.)
1992 – Lodi IPM Program launched
1995 - NSWG created
1995 - CCVT launches Positive Point System
1996 – Green Business Certification for Wineries
1997 - Fish Friendly Farming launched
1999 to 2001 – Wine Vision
2000 CAWG Pest Mgmt. Alliance
2000 – Sonoma IPM Project and PCA Outreach
2000 – Lodi Winegrower Workbook launched
2004 -SWP Benchmark Report
2005 – Lodi Rules launched
2008 – Green Wine Summit
2008 – NVV Napa Green Winery Certification launched
2008 – CCVT SIP Certified launched

1991 - Farm*A*Syst (U Wis.)
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.
SUSTAINABLE, ORGANIC & BIODYNAMIC

Sustainable Winegrowing

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 and Water Regulations

The California Global Warming Solutions Act of 2006

77% “important to buy environmentally friendly products.”—The Hartmann Group (2007)

75% EU respondents “would at least consider purchasing environmentally friendly products like food”—Eurobarometer (2008)

Wal-Mart Packaging Scorecard and Sustainability Report

Tesco announced plans to introduce carbon footprint labels

Sysco launches IPM Initiative

Wal-Mart announces Packaging Scorecard and Sustainability Report
CA Sustainable Winegrowing Program (SWP)
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 associations, 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

www.sustainablewinegrowing.org
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
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
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

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
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

www.wineinstitute.org/winerywaterguide
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.
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
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…”
NGWI “GRO” Committee

• Grape Research & Outreach Committee is developing key issues for a Voluntary Research Agreement

• 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
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 quantify the impact 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.
Thank You!