



CALIFORNIA
SUSTAINABLE WINEGROWING
ALLIANCE



THE CALIFORNIA TABLE Wine Leads the Way in Sustainable Agriculture

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Sustainable Winegrowing Alliance

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at Jackson Family Wines

SWE's 2019 Annual Conference
Washington, DC – August 16, 2019

CA GROWN FACTS

- 👉 77,100 farms and ranches
- 👉 400 Commodities
- 👉 25.3 million acres
- 👉 328 acres ave. farm size
- 👉 1/3+ of country's vegetables
- 👉 2/3 of fruits and nuts

Source: California Agricultural Statistics Review 2017-2018

- 🌱 Sustainable agriculture addressed in policy, education, partnerships and programs.



CA WINE FACTS

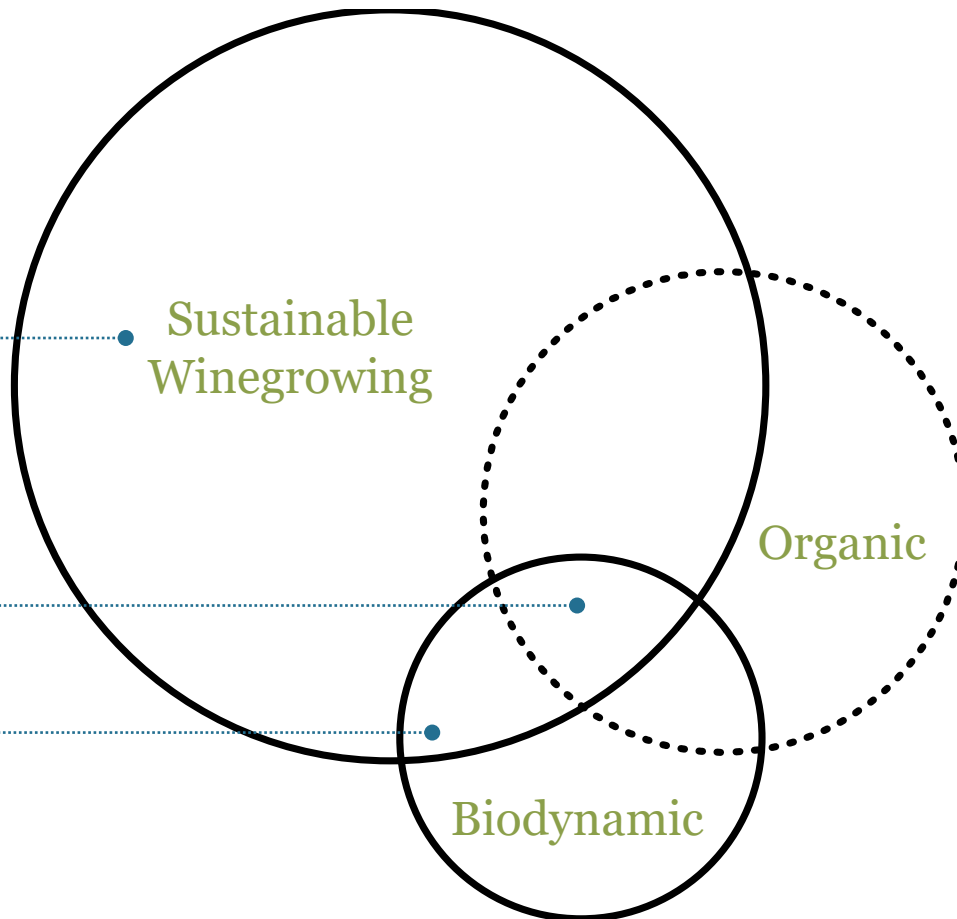
- 👉 #1 U.S. wine producer, #4 in the world
- 👉 3,900 bonded wineries
- 👉 5,900 winegrape growers farm 637,000 acres of winegrapes
- 👉 Over 110 winegrape varieties and 139 AVAs

Source: [Wine Institute statistics](#) with numerous sources

- 🌱 85% of CA's wine is produced in a Certified California Sustainable Winery
- 🌱 40% of grapes certified to various sustainability programs, and others certified organic and biodynamic.



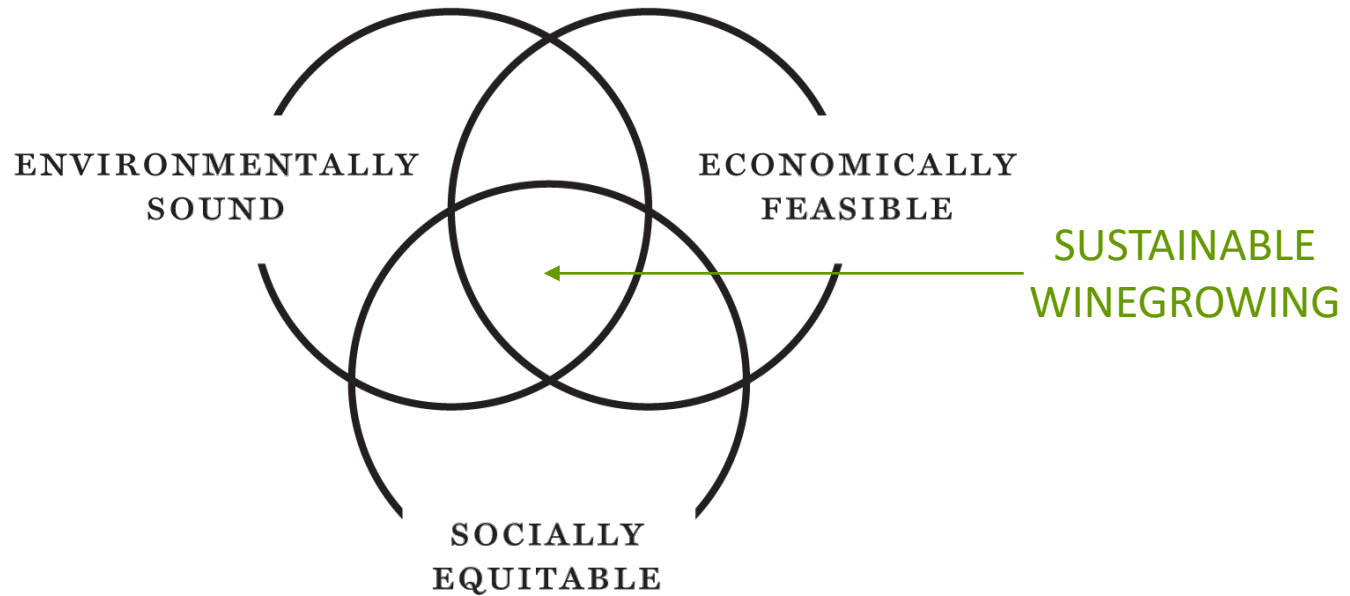
- Water efficiency 
- Energy efficiency 
- Employees & community 
- Supply chain responsibility 
- Waste management 
- Soil health 
- Pest management 
- Ecosystem management 



SUSTAINABLE WINEGROWING



CALIFORNIA
SUSTAINABLE WINEGROWING
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BEING A
SUSTAINABLE
WINEGROWER
MEANS:



PRODUCING
HIGH QUALITY
GRAPES & WINES



PROTECTING
THE
ENVIRONMENT



BEING A GOOD
NEIGHBOR &
EMPLOYER



MAINTAINING A
THRIVING LONG-
TERM BUSINESS

CALIFORNIA CODE OF SUSTAINABLE WINEGROWING

140 Vineyard Practices, 104 Winery Practices

Sustainable
Business Strategy

Viticulture

Soil Management

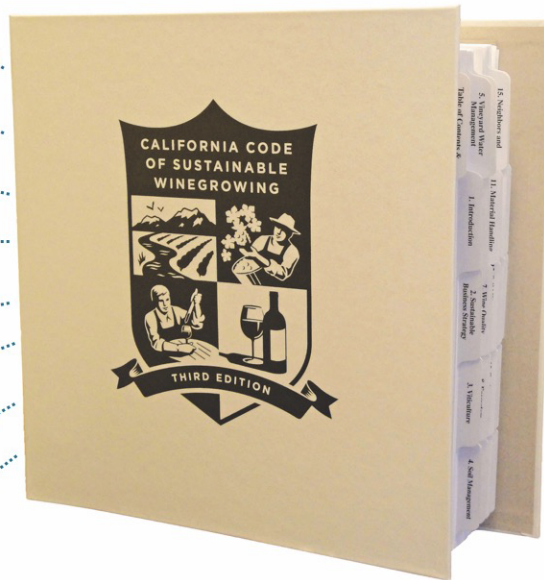
Vineyard Water
Management

Pest Management

Wine Quality

Ecosystem
Management

Energy Efficiency



Winery Water
Conservation & Quality

Material Handling

Solid Waste
Management

Environmentally
Preferable Purchasing

Human Resources

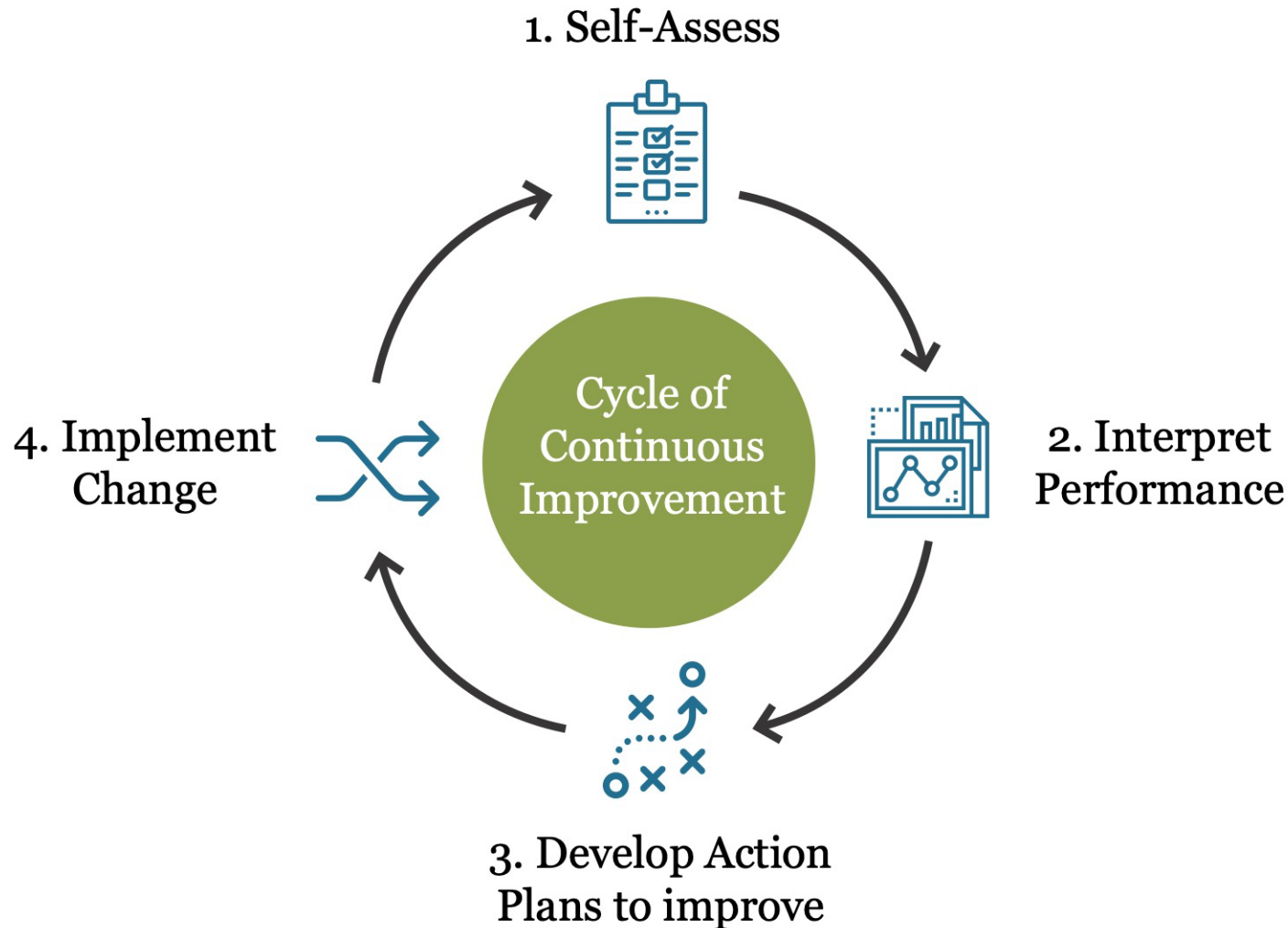
Neighbors and
Community

Air Quality



CALIFORNIA
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CYCLE OF CONTINUOUS IMPROVEMENT



CERTIFIED SUSTAINABLE Requirements



Annual independent verification that a vineyard and/or winery:

- ✓ Adopts sustainable practices (Code)
- ✓ Meets certification requirements:
 - Prerequisite (required) practices
 - Minimum score threshold
 - Performance metrics (measure and track Water, Energy, GHG, applied N)
 - Restrictions on crop protection materials
- ✓ Develops annual action plans
- ✓ Improves year after year

CERTIFIED SUSTAINABLE VINEYARDS & WINERIES



For a list of CERTIFIED SUSTAINABLE Participants, visit <http://www.sustainablewinegrowing.org/certifiedparticipants.php>

In July 2019:

155,126 winegrape acres in 1,477
CERTIFIED SUSTAINABLE VINEYARDS

❖ 25% of California's total acres

255.8 M cases *produced* by 148 CERTIFIED
SUSTAINABLE WINERIES

❖ 85% of wine cases produced in California

Another 15% of California vineyard acreage is certified to other programs in the state:





SUSTAINABILITY FROM GRAPES TO GLASS

- Wine is made in a certified winery
- 85% (or more) of grapes from certified vineyards, 100% of grapes from California



- To date, Wine Label Notification Forms received for nearly 1,000,000 cases of California wine for the 2017 & 2018 vintages!



WINE COUNTRY TABLE

*With Recipes that Celebrate
California's Sustainable Harvest*

JANET FLETCHER

RIZZOLI
NEW YORK

TODAY'S WINES

1. Handley Cellars | 2016
Brut Rose Estate
Vineyard
2. Tablas Creek | 2017
Cotes de Tablas Blanc
3. Cambria Estate Winery |
2017 Katherine's
Vineyard Chardonnay
4. Chamisal Vineyards |
2017 Soberanes
Vineyard Pinot Noir
5. Ridge Vineyards | 2017
East Bench Zinfandel
6. Turley Wine Cellars |
2016 Turley Estate
Cabernet Sauvignon

HANDLEY CELLARS



HANDLEY CELLARS | 2016 BRUT ROSE ESTATE VINEYARD

Tech Notes: Pinot Noir (70%) and Chardonnay (30%); Cases produced 505; Residual Sugar 2.9g/L, pH 3.2, TA 7.2 g/L, alcohol 12.5%

Retail: \$52



HANDLEY CELLARS

Region: Mendocino

Certifications: USDA Organic

Key Sustainability Practices:

- **Vineyard:** organically farmed; cover crops; grazing by Baby-doll sheep for weed control and fertilization
- **Winery:** Raise funds for local health clinics, an elder home and other community causes; employees work “on the clock” for community causes

“Animals can help regenerate the soil.” – Lulu McClellan



TABLAS CREEK VINEYARD



TABLAS CREEK | 2017 COTES DE TABLAS BLANC

Tech Notes: 44% Viognier, 24% Marsanne, 20% Grenache Blanc, 12% Roussanne; 13% Alcohol; 1800 Cases Produced; grapes from CCOF Organic Certified estate vineyard; whole cluster pressed, and fermented in stainless steel; only native yeasts were used after fermentation; wines were racked and blended, and bottled in June 2018, with only a light cold stabilization before bottling.

Retail: \$24-30



TABLAS CREEK VINEYARD



Region: Paso Robles

Certifications: USDA Organic

Key Sustainability Practices:

- **Vineyard:** organically and dry- farmed; chickens and Gloucestershire Old Spots pigs, sheep and guardian llamas; fruit trees and vegetable gardens lure birds and beneficials; and provide shade and food for employees
- **Winery:** Solar; steam cleaning barrels; winery wastewater to wetlands for habitat; lightweight glass

“Dry-farmed vines...tolerate drought more easily and yield more elegant and complex wines.” – Neil Collins, Winemaker

CAMBRIA ESTATE WINERY



CAMBRIA ESTATE WINERY | 2017 KATHERINE'S VINEYARD CHARDONNAY

Tech Notes: 100% Chardonnay; 13.2% Alcohol; 50,000 Cases Produced; grapes from Certified California Sustainable and SIP-Certified vineyards; 15-20% fermented in Stainless Steel and rest in 6-months barrel aging in 100% French oak barrel, 15% new.

Retail: \$22



CAMBRIA ESTATE WINERY



Region: Santa Barbara

Certifications: Organic, Certified California Sustainable Winegrowing and SIP-Certified

Key Sustainability Practices:

- **Vineyard:** Beneficial insects, pheromone traps and owl boxes to control vineyard pests; employees valued and thanked, with average tenure approaching 20 years.
- **Winery:** Winery water use reduced by 50%; Stewards of the Land established by Julia and Katie to offer grants to female changemakers; employees given two paid days to volunteer; solar on roof contributes \pm 65% of power; retrofitted tanks with new jackets to reduce energy use along with additional new tanks.

“Employees feel good about what the company is doing.” – Denise Shurtleff, General Manager

CONSUMER INTEREST IN SUSTAINABILITY



Sustainably produced wine has the highest future purchase consideration

Alternative wine styles: **Consideration** by generation

% who would consider buying the following alternative wine styles in the future

Base = All aware of the following alternative wine styles

		All US regular wine drinkers	Generations		
			Gen Z + Millennials (21-39)	Gen X (40-54)	Boomers + (55+)
1	Sustainably produced wine	74%	73%	77%	75%
1	Environmentally friendly wine	74%	74%	75%	73%
1	Fairtrade wine	74%	76%	77%	70%
4	Organic wine	70%	74%	76%	62%
4	Preservative free wine	70%	67%	75%	71%
4	Sulphite free wine	70%	70%	70%	70%
4	Orange / skin contact wine	70%	69%	78%	57%
8	Wine from a carbon neutral winery	68%	68%	68%	69%
9	Biodynamic wine	58%	59%	60%	53%
9	Vegetarian wine	58%	60%	66%	36%
11	Vegan wine	55%	61%	53%	39%

 Small sample size (n<50)

Red / Blue: Statistically significantly **higher / lower** than all US regular wine drinkers at a 95% confidence level

 Top 3 in each segment (exc. small sample size)

Sources:

- Wine Intelligence, consumer focus groups in LA, April 2019, n=3 groups
- Wine Intelligence, Vinitrac© US, April 2019, n=2,000 US regular wine drinkers

Sustainably produced wine has the highest future purchase consideration in US, CAN, UK

Alternative wine styles: **Consideration** by country

% who would consider buying the following alternative wine styles in the future

Base = All aware of the following alternative wine styles

		Countries			
		US	Canada	Sweden	UK
1	Sustainably produced wine	74%	70%	60%	63%
2	Environmentally friendly wine	74%	61%	57%	55%
3	Fairtrade wine	74%	60%	55%	63%
4	Organic wine	70%	57%	68%	49%
5	Preservative free wine	70%	57%	52%	56%
6	Sulphite free wine	70%	58%	44%	49%
7	Orange / skin contact wine	70%	49%	30%	44%
8	Wine from a carbon neutral winery	68%	57%	54%	66%
9	Biodynamic wine	58%	52%	40%	43%
10	Vegetarian wine	58%	41%	28%	32%
11	Vegan wine	55%	38%	34%	34%
	None of these	16%	27%	15%	33%

Small sample size (n<50)

Red / Blue: Statistically significantly higher / lower than all US Top 3 in each segment (excl. small sample size)

Sources:

- Wine Intelligence, consumer focus groups in LA, April 2019, n=3 groups
- Wine Intelligence, Vinitrac© US (n=2,000) Canada (n=2,479), Sweden (n=1,000) and UK (n=1,000), April 2019, US, Canadian, Swedish and UK regular wine drinkers

Consumers are often willing to pay more

"I'd pay a couple of dollars more for a sustainable wine, as long as it tasted good"
Age 21-35

Willingness to pay more for sustainably produced wine

% who would pay the following extra amount for a sustainably produced wine

Base = All US regular wine drinkers (n=2,000)

	All US regular wine drinkers	Generations			
		Gen Z (21-24)	Millennials (25-39)	Gen X (40-54)	Boomers + (55 +)
<i>sample size =</i>	2,000	154	601	470	775
I would not be willing to pay more	26%	14%	11%	22%	43%
Up to \$1 more	10%	8%	7%	10%	13%
\$1.00 to \$1.99 more	14%	20%	13%	13%	14%
\$2.00 to \$2.99 more	18%	25%	20%	19%	14%
\$3.00 to \$3.99 more	11%	13%	17%	10%	7%
\$4.00 to \$4.99 more	7%	5%	11%	8%	3%
\$5 or more	14%	14%	20%	16%	8%
Average extra value	\$3.0	\$2.9	\$3.3	\$3.1	\$2.5

Red / Blue: Statistically significantly higher / lower than all US regular wine drinkers at a 95% confidence level

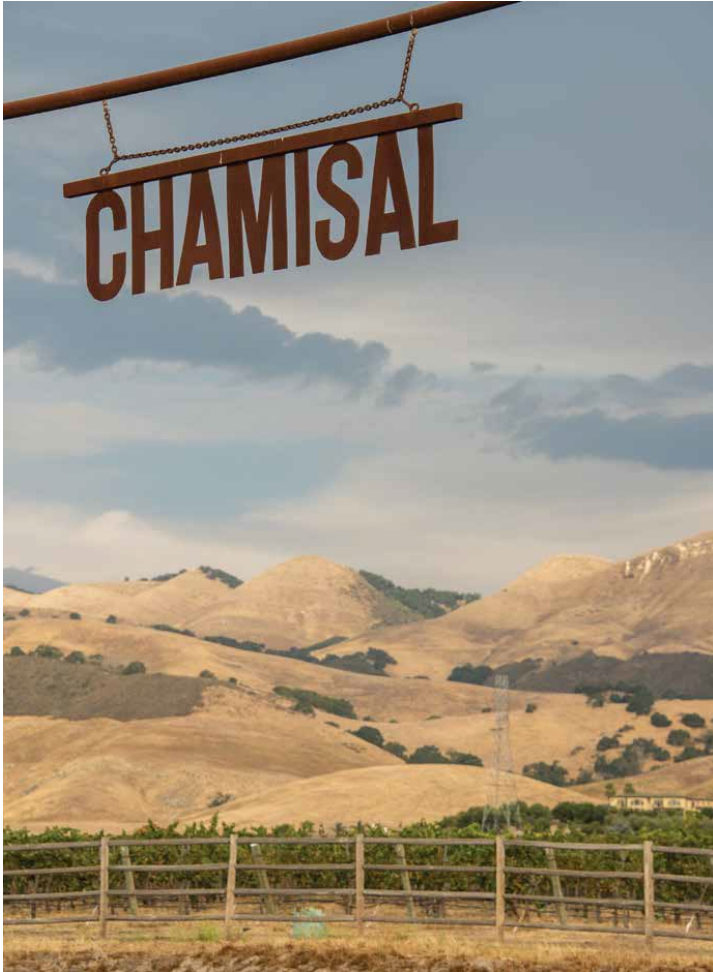
Sources:

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- Wine Intelligence, Vinitrac© US, April 2019, n=2,000 US regular wine drinkers

CHAMISAL VINEYARDS



CHAMISAL VINEYARDS | 2017 SOBERANES VINEYARD PINOT NOIR



Tech Notes: 100% Pinot Noir; Night harvested and hand-sorted and destemmed into small open-top fermenters. Fermentation achieved using native yeast with low fermentation temperatures giving soft phenolics and fresh aromatics. After total fermentation time of 12 days, the wines were then racked to 40% new French oak barrels and aged for 16 months.

Retail: \$60

CHAMISAL ESTATE WINERY

Region: San Luis Obispo

Certifications: SIP-Certified

Key Sustainability Practices:

- **Vineyard:** Organic waste is composted and composted and applied to boost soil microbes in vineyard; owl boxes strategically placed to eliminate up to 1000 rodents/season
- **Winery:** Rainwater capture on winery's roof rerouted to irrigation; process water treated in ponds and reused; tasting room paneled with salvaged barn planks; cork recycling

"It's time-consuming to farm multiple small blocks differently—with different rootstocks, vine densities, and irrigation plans—but there's a payoff in conservation and quality."

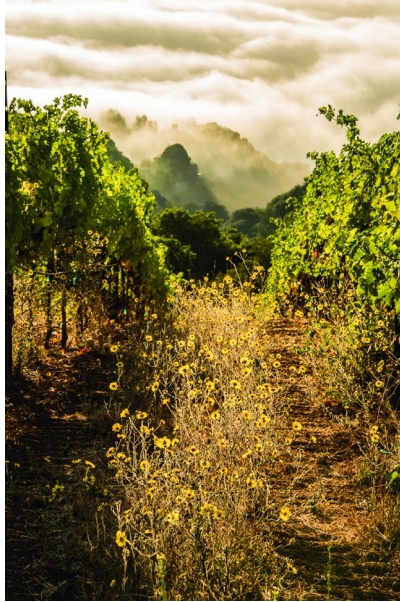
- Wine Country Table, Chamisal Estate Winery profile



RIDGE VINEYARDS



RIDGE VINEYARDS | 2017 EAST BENCH ZINFANDEL



Tech Notes: 100% ZINFANDEL (organically grown); 14.7% ALCOHOL BY VOLUME; Natural primary and natural secondary (malolactic) fermentations; once daily pump-overs; pressed at eleven days; 100% air-dried American oak barrels (10% new oak, 25% one year, 25% two year, 20% three year, 20% four year); Twelve months in barrel

Retail: \$32

RIDGE VINEYARDS

Region: Santa Cruz Mountains

Certifications: Certified Organic, Fish Friendly Farming

Key Sustainability Practices:

- **Vineyard:** Winter cover crops minimize erosion on this steep site and summer cover crops draw beneficials when most needed; compost grape stems and pomace; monitor vineyards at vine level; use raptor and bird boxes to help with insect and rodent control; provide housing for employees
- **Winery:** Bioreactor system recycles every drop of winery process water, while storm water that falls on hard surfaces is collected and channeled underground into the aquifer

“We’re always fiddling, always trying to improve. In California, you’ll fall behind if that’s not your attitude.”
- David Gates, Viticulturalist



TURLEY WINE CELLARS



TURLEY WINE CELLARS | 2016 TURLEY ESTATE CABERNET SAUVIGNON



Tech Notes: Vines are 29 years old; 100% French oak, of which 40% is new; Only natural yeasts are used in fermentation; 18 months in barrel

Retail: \$50-\$60

TURLEY WINE CELLARS

Region: Santa Cruz Mountains

Certifications: USDA Organic

Key Sustainability Practices:

- **Vineyard:** Cover crops replenish soil; worm castings and compost tea; dry-farming; head-pruned vines with evenly spaced arms admit sun and wind from every direction and canopy helps with mildew control
- **Winery:** Solar panels; canopy over sorting table to create worker comfort; stack barrels higher to save energy; core values: having fun, generosity and continued education (e.g., covering state-college tuition for employees' children)

"If you're going to cool and humidify a room...you lose a lot less energy when there's critical mass."

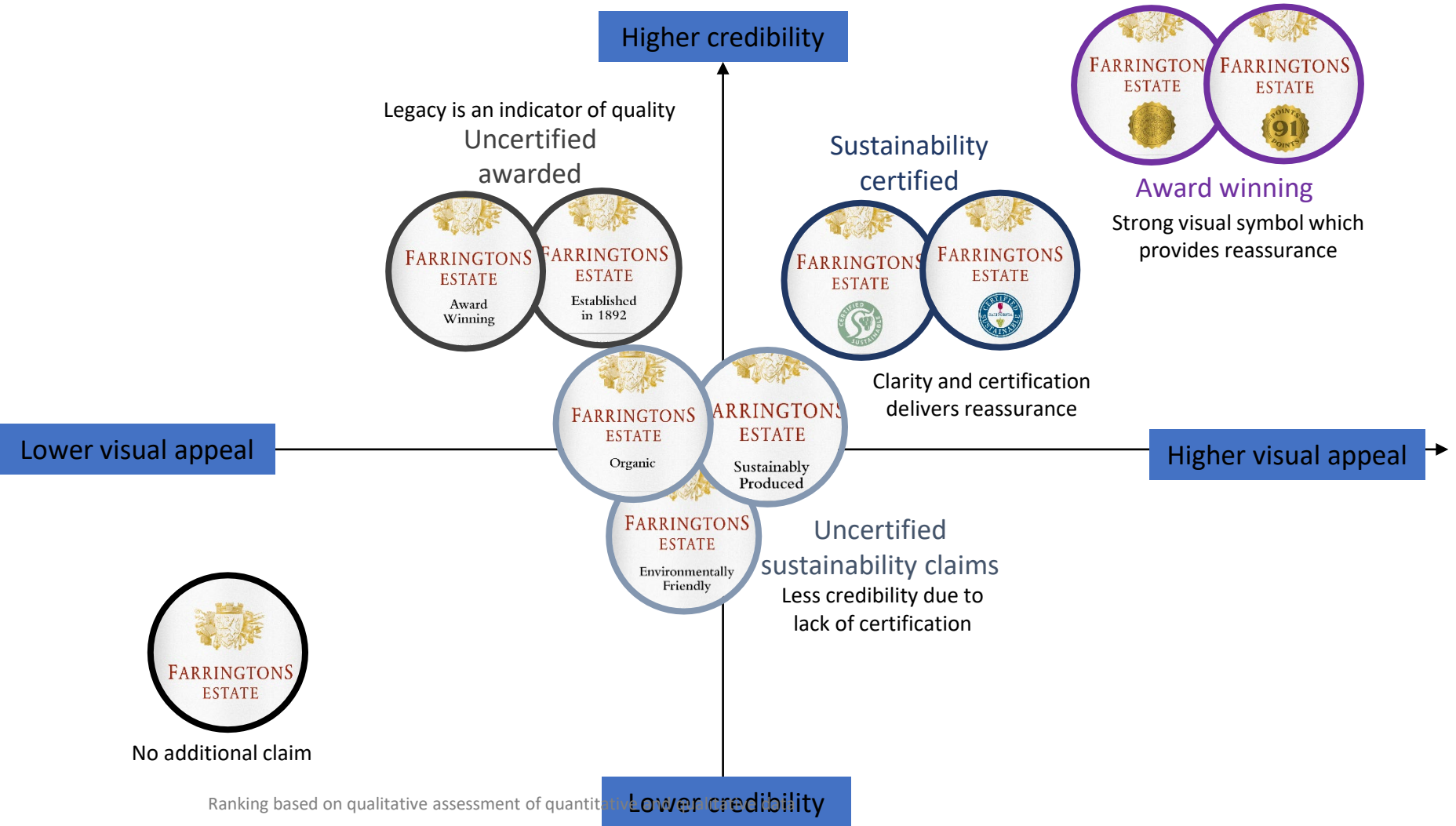
- Larry Turley



CONSUMER PERCEPTIONS OF CERTIFICATION



Most reassurance: award winning endorsements followed by certifications



Ranking based on qualitative assessment of quantitative

Sources:

- Wine Intelligence, consumer focus groups in LA, April 2019, n=3 groups
- Wine Intelligence, Vinitrac© US, April 2019, n=2,000 US regular wine drinkers

Certified Sustainable logos yielded highest "likelihood to buy" in U.S.

Sustainability labeling cues - likelihood to buy - Averages

Labeling cues are shown on a scale of 1 = 'very unlikely' to 5 = 'very likely' ranked on their average likelihood to buy

Base = All US regular wine drinkers (n=2,000)



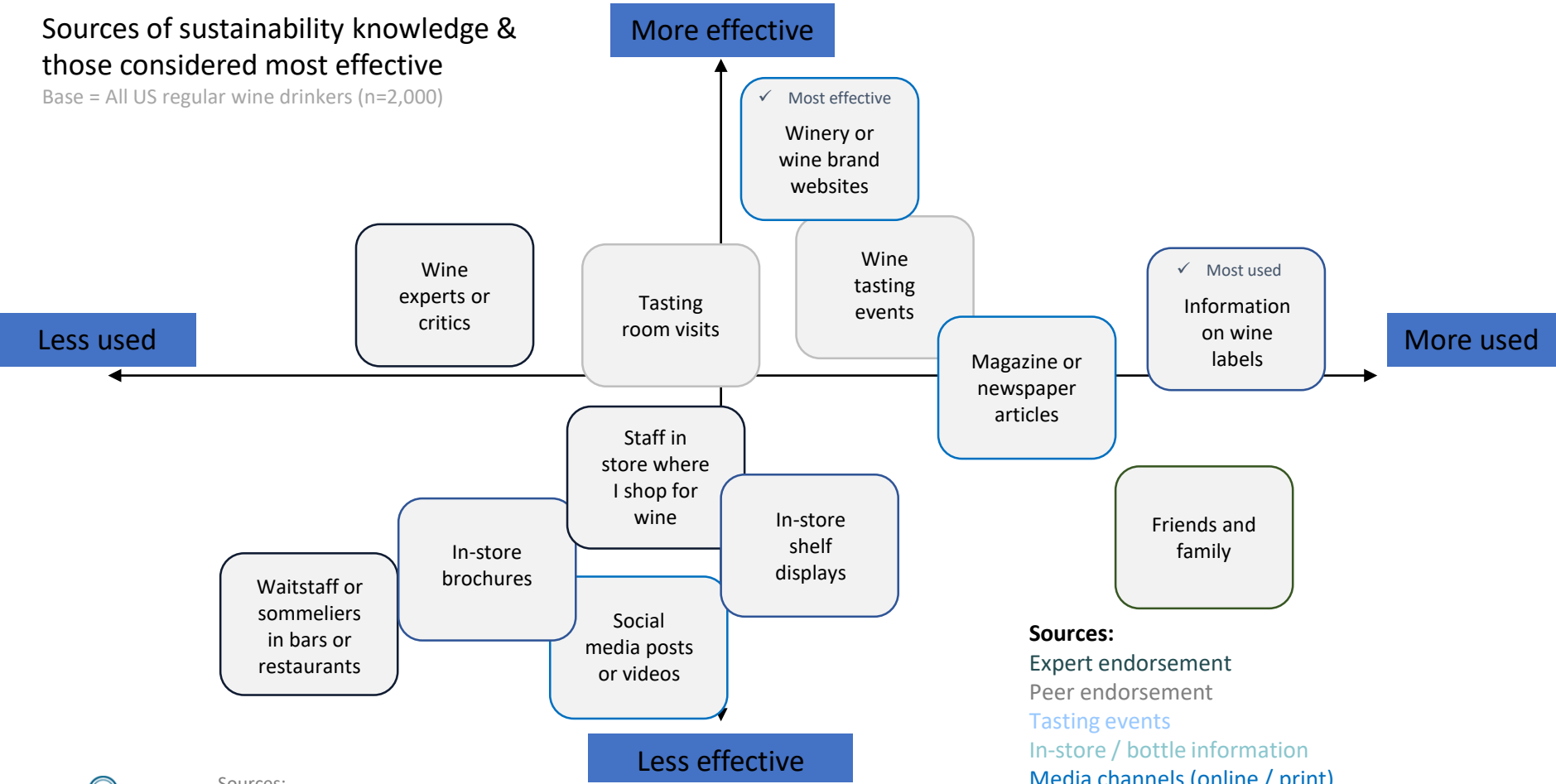
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- Wine Intelligence, Vinitrac© US, April 2019, n=2,000 US regular wine drinkers

Winery websites & tastings are more effective at communicating sustainability; wine labels & peer recommendation are more frequently used

Sources of sustainability knowledge & those considered most effective

Base = All US regular wine drinkers (n=2,000)



Sources:

- Wine Intelligence, consumer focus groups in LA, April 2019, n=3 groups
- Wine Intelligence, Vinitrac© US, April 2019, n=2,000 US regular wine drinkers



COMMUNICATION TIPS

1. Today not tomorrow
2. Positive not negative
3. People like you
4. Feel not fact
5. Blink not blah, blah blah

Credit: Lulie Halstead, Wine Intelligence



JACKSON FAMILY WINES EXAMPLES





Sustainability Certifications

- All our vineyards and wineries certified under one of three sustainability programs
 - California CERTIFIED SUSTAINABLE
 - Sustainability in Practice (SIP)
 - Oregon Low Input Viticulture & Enology (LIVE)
- Third-party certification supports best management practices for sustainability performance



2020 Sustainability Goals & Progress

(metric-based goals only – from 2008 baseline)



<u>Category</u>	<u>2020 Goal</u>	<u>2018 Progress</u>
GHG intensity	25% reduction	33% reduction
Water intensity	33% reduction	36% reduction
Electricity offset from onsite renewables	50% offset	32% offset
Employee volunteering	75% participation	79% participation
Sustainable grower fruit	85% certified	80% certified
Zero Waste wineries & tasting rooms	90%+ diversion	98% diversion (wineries)



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