



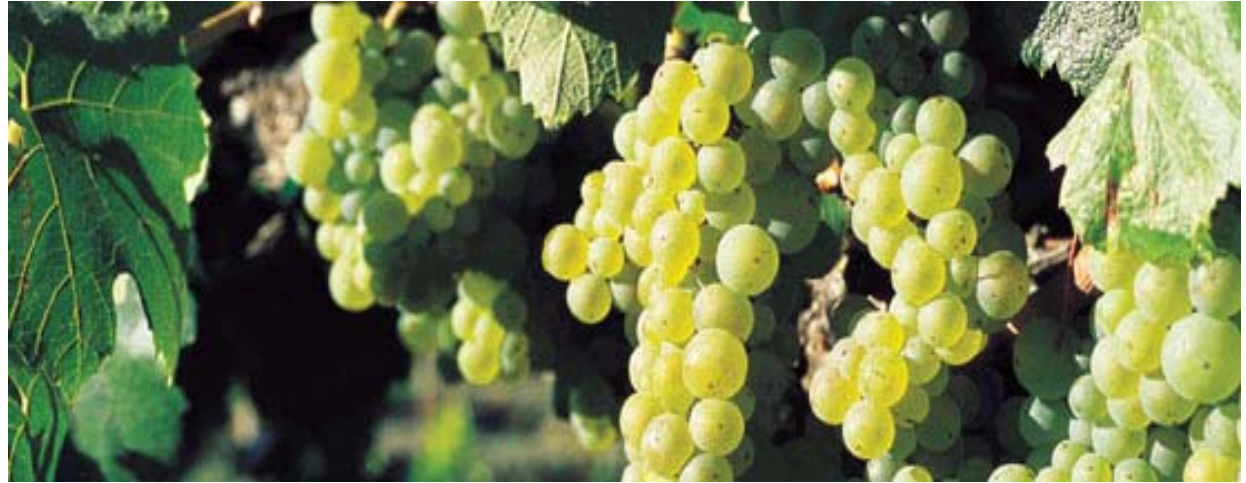
Chardonnay Winemaking Techniques

Brief discussion of the history, climate, winegrowing, viticultural cycles and winemaking of Chardonnay – followed by a component winemaking tasting



Kendall-Jackson Chardonnay Seminar

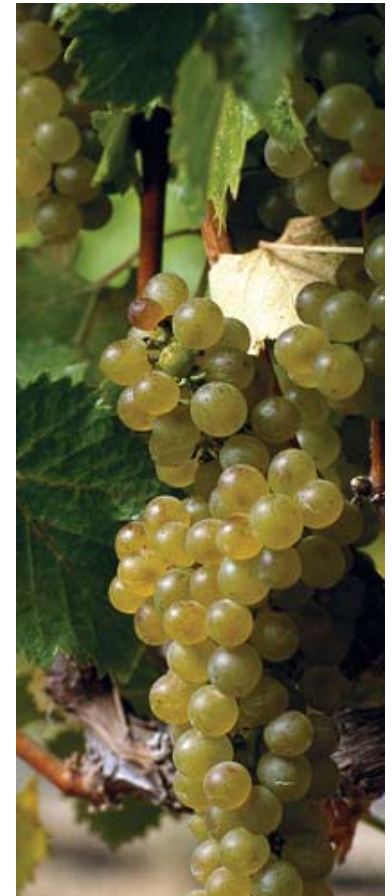
- ☐ History
- ☐ Climate
- ☐ Winegrowing
- ☐ Winemaking
- ☐ Wine Tasting





Chardonnay

- ❑ Chardonnay's appeal reaches from wine novice to wine connoisseurs.
- ❑ The Chardonnay grape originates in France and is primarily grown in the Burgundy and Champagne regions.
- ❑ Traditional descriptors: creamy, buttery, toasty, tropical, pear, apple, citrus fruit notes. Medium-bodied.
- ❑ Chardonnay is the most popular varietal representing 27% of all dollars spent on table wine.
(Source: IRI \$ Sales 52 wpe 11/27/05)
- ❑ Secondary or "Malolactic Fermentation" adds a creamy, buttery flavor with a rounded mouthfeel. Oak aging creates flavors of vanilla, toast and spice.





Chardonnay Styles

❑ 1. Crisp lean and clean.

Examples: Chablis (France), Friuli (Italy), Anderson Valley (California), Yarra Valley (Australia)

❑ 2. Fruit forward.

Examples: Pouilly-Fuisse, Macon (France), Trentino-Alto Adige (Italy), Santa Barbara, Alexander Valley (California), Coonawarra (Australia), Casablanca (Chile)

❑ 3. Concentrated and complex:

Examples: unique climatic and/or mountainous sub-appellations, Cote de Beaune (France), California





Climate:

The Fog is Our Friend for Grape Growing

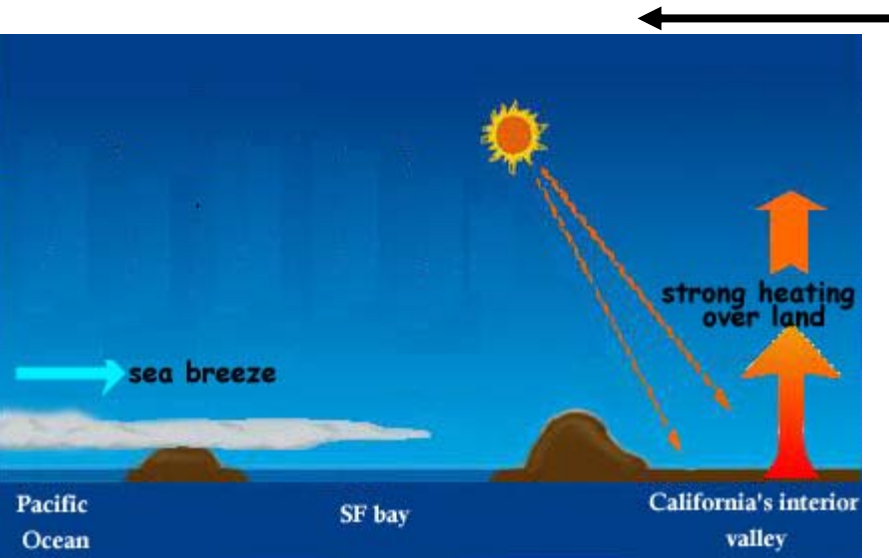




Climate

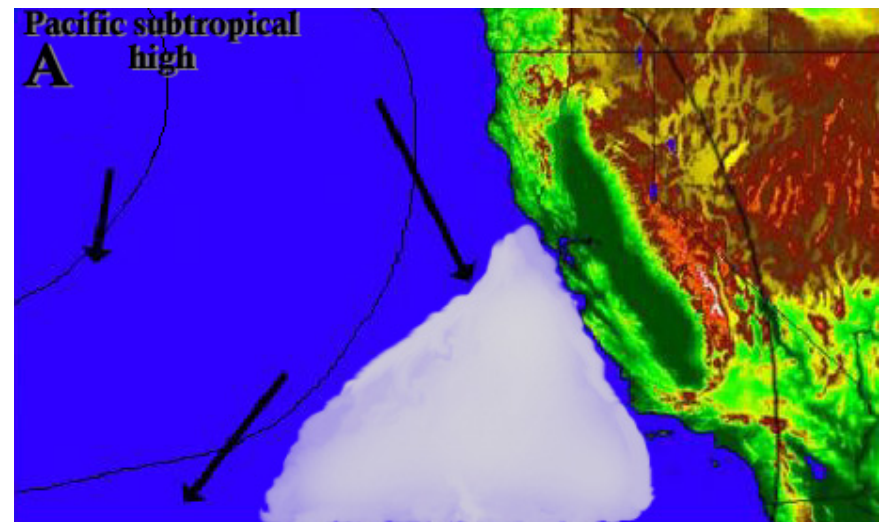
- ☐ Fog intrusions
- ☐ Cool climate
- ☐ How?

What Causes the Marine Influence in the North Coast?



The warm moist air interacts with the cold water to produce our summer fog.

- ❑ The high inland temperatures cause the warmer air to rise.
- ❑ Air from the offshore area moves onshore.
- ❑ The air movement is perceivable as wind.





Coastal Grapes Cost More

Higher Risk But Greater Reward

Fog and breezes create an extended growing season.

- ❑ Develops more concentrated fruit flavors
- ❑ Optimum aroma
- ❑ Even ripening
- ❑ High acid





Appellations or AVA's

☐ Mendocino

☐ Sonoma

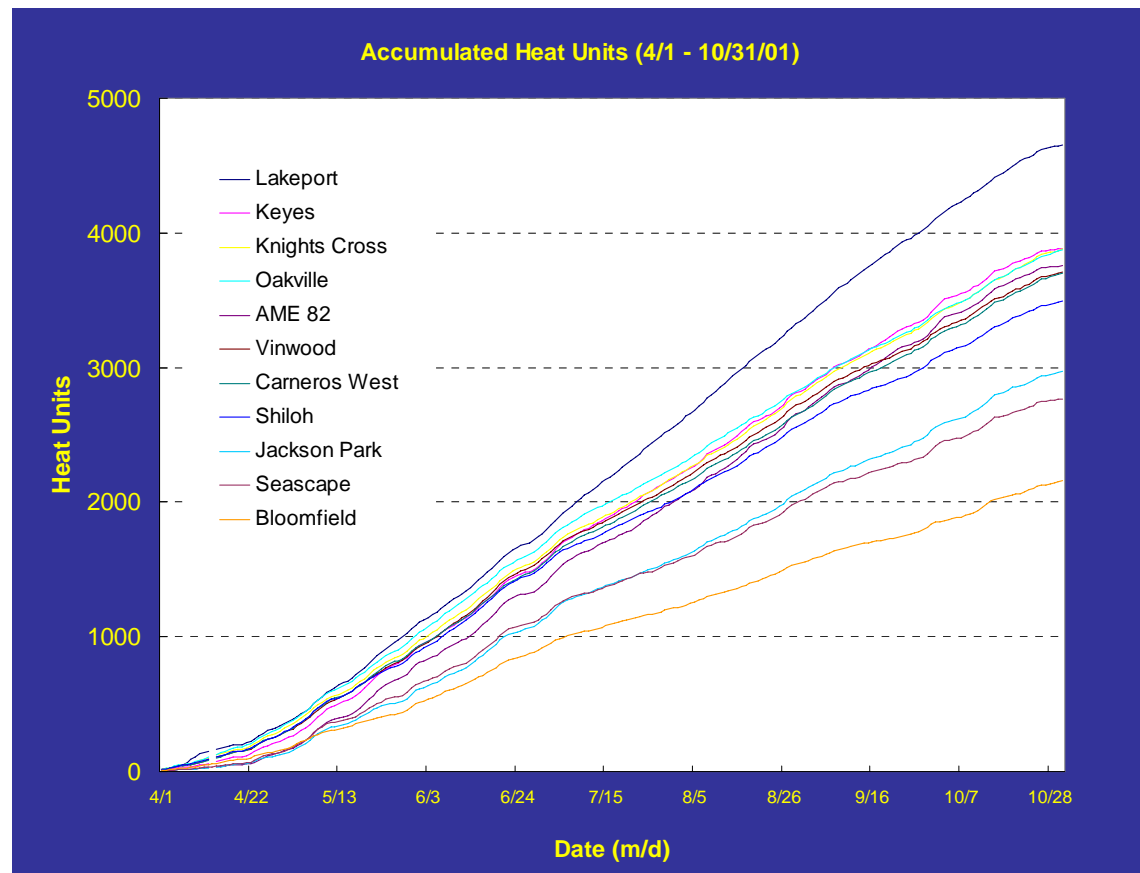
☐ Napa

☐ Monterey

☐ Santa Barbara



Agrilink Weather stations



SOIL



DR. Dirt

- ❑ A soil's composition has long been theorized to impact unique flavor characteristics to the grapes and the wines made from them.
- ❑ Great vineyard sites are similar in that they are NOT very fertile and have good drainage



SOIL VARIABILITY

- ❑ Significant soil variability within a harvest unit is detrimental to quality.
- ❑ Designing vineyard blocks (shape, size) to minimize soil variability is critical choice.
- ❑ Blocks designed to fit a site allow for better use of soil amendments, fertilizers and irrigation.

Poor and optimum soil structure





Dormancy





Pruning the Vines



Budbreak





Flowering





Leaf Pulling





Green-drop





Ready for Harvest

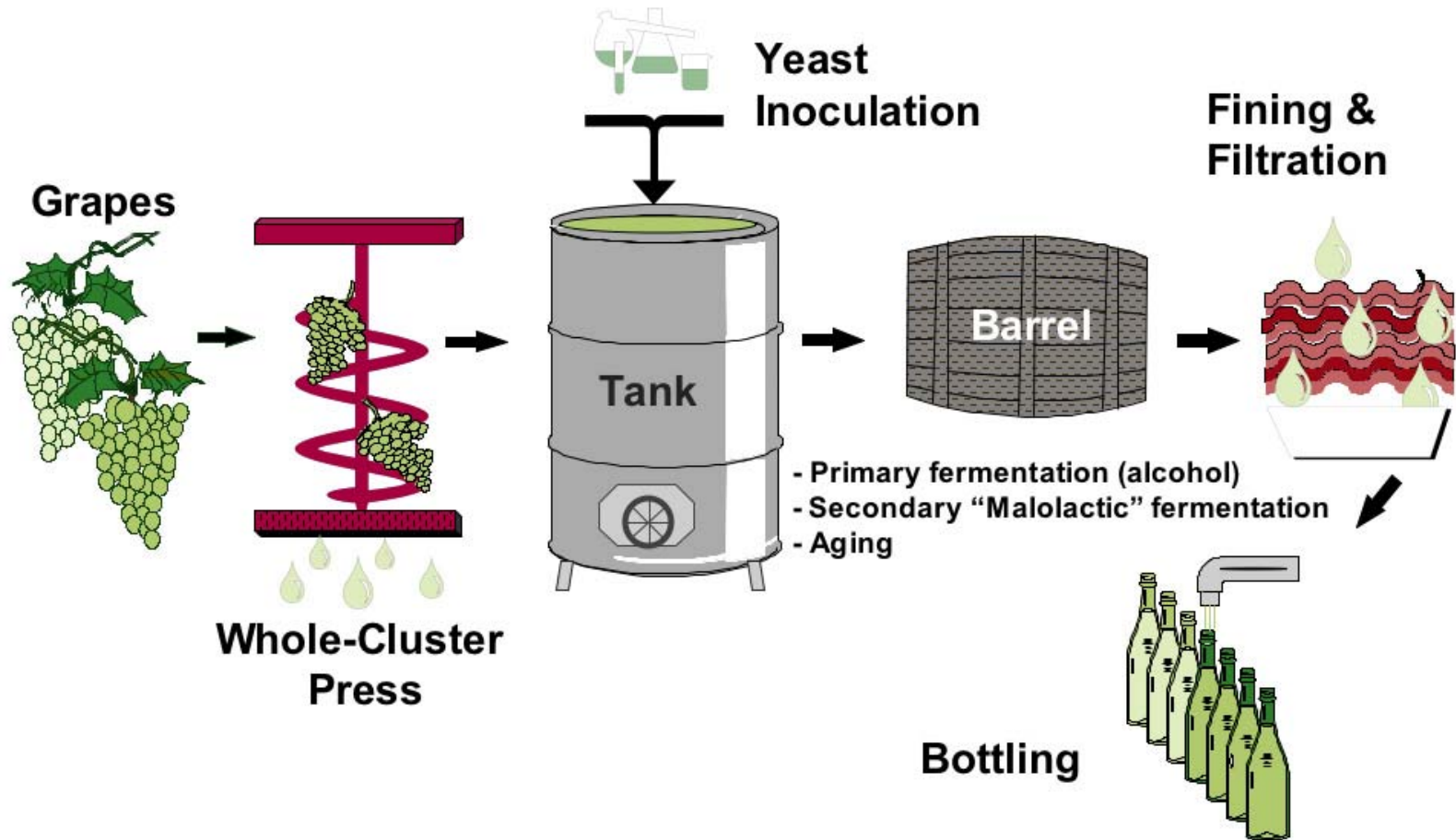




Picked by Flavor



Winemaking Chart - White





Chardonnay Winemaking: Gentle delivery and handling

☐ No Crushing or destemming

☐ Whole Cluster Press





Chardonnay Winemaking: Barrel Fermentation

- ❑ Native Yeast or Indigenous Yeast fermentation
- ❑ Sur Lie Aged
- ❑ Malolactic Fermentation
- ❑ Barrel aging





Why Use Oak Barrels?

- ❑ Barrels concentrate wine.
- ❑ Barrels soften tannins
- ❑ Barrels impart flavor; vanilla, spice, creaminess and toastiness.

Key Facts:

- ❑ Cost per barrel: French-\$850+
American-\$450+
- ❑ Winemakers use barrels like a chef uses spices.





Differences Between French Oak and American Oak Barrels

- ❑ **American Oak** - pronounced sweet vanilla, hints of coconut, spice and dill.
- ❑ **French Oak** - subtle vanilla, toasted bread, cedar box and spice.
- ❑ **The Kendall-Jackson Technique**





KJ French Oak Stave Mill

- ❑ Only American-owned oak barrel company
- ❑ Quality and Consistency





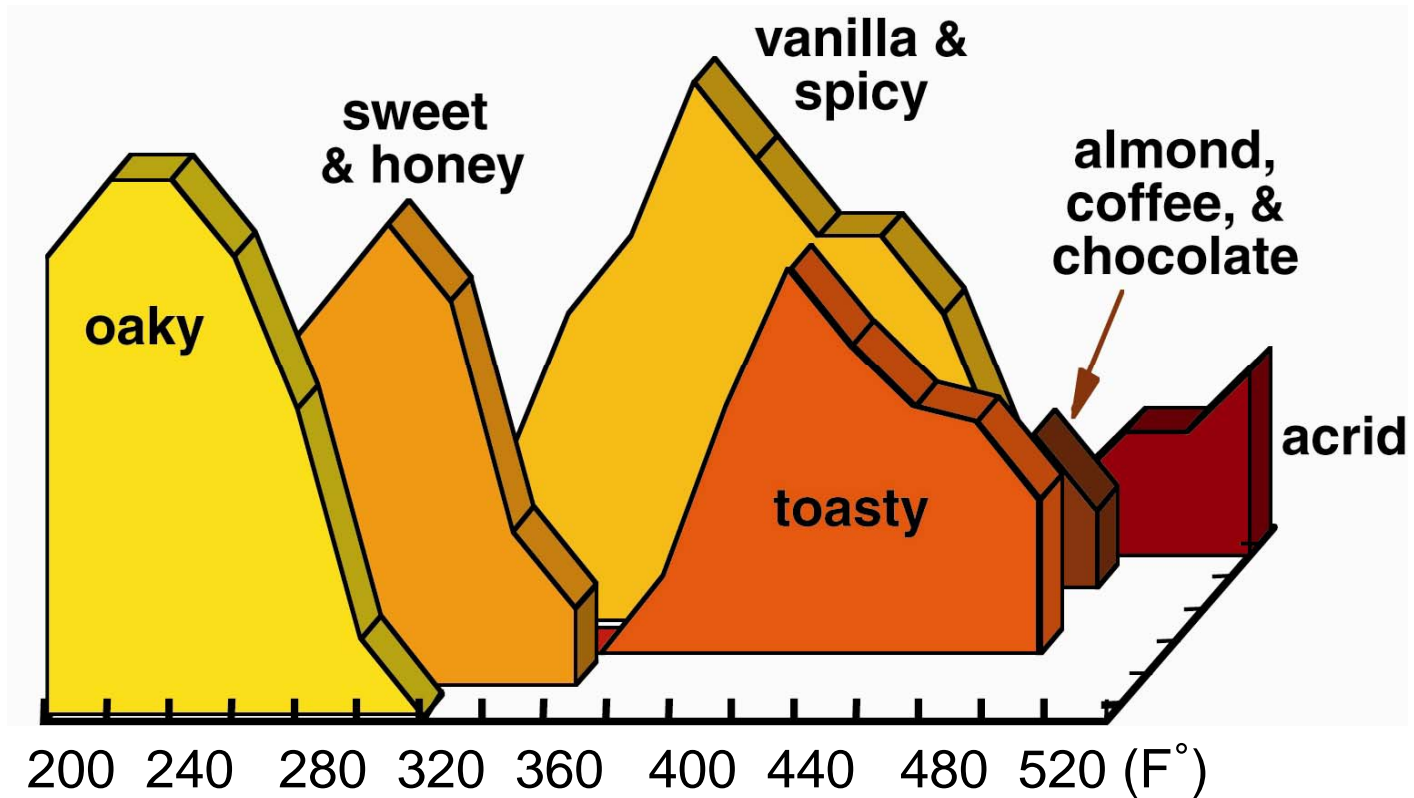
Oak Character at Various Toast Levels

| | |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <u>Light Toast</u> <u>200-300 degrees</u> Vanilla Butter Coconut Seasoned Wood Pine | <u>Medium Toast</u> <u>240-360 degrees</u> Vanilla Almond Nutmeg Cinnamon Butterscotch Roasted Bread |
| <u>Heavy Toast</u> <u>320-480 degrees</u> Coffee Caramel Toast, Smoke Anise Clove Cedar Chocolate | <u>Light Char</u> <u>400-500 degrees</u> Burnt Toast Smoke Chocolate Coffee |





Oak Toasting Chart



Source: World Cooperage and Tatlock & Thomson



Kendall-Jackson Stave Mill; Epinal, France





Oak Ready to be Quartered and Split





Oak Split Into Quarters





Oak Quarters Cut Into Staves





Staves Air-dry and Season for 36 Months





Master Cooper Building a Barrel





Barrels Being Toasted





Finishing Hoops





Blending

☐ Tasting

☐ “Lots”

☐ Flavors





Wine # 1

Stainless Steel Fermented, no Malolactic:

- ☐ **Shows a fresh, fruity character without other influences.**
- ☐ **Note the acid level.**
- ☐ **Cool fermentation temperature of 50-60F°**
- ☐ **Absence of oak and Malolactic fermentation changes the wine's texture.**



Wine # 2

Stainless Steel Fermented with Malolactic:

- ☐ Shows full effect of Malolactic fermentation.
- ☐ Note the textural change in your mouth, slightly more rounded.
- ☐ The acid has also mellowed, making the wine less tart.
- ☐ Taste the addition of a buttery character.



Wine # 3

Barrel Fermented, Neutral Oak:

- ☐ **The color of the wine is a deeper color because of the oak influence.**
- ☐ **Note how the barrel fermentation integrates fruit, malolactic character and oak.**
- ☐ **Neutral oak adds light, refined flavors and tannins that effect texture.**



Wine # 4

Barrel Fermented, French Oak:

- ☐ Smell the difference in oak aromas derived from the French barrel.
- ☐ French oak exhibits vanillin, clove, butterscotch, toast and nutmeg flavors.
- ☐ Note the difference in the finish. It has a long lingering sensation.



Wine # 5

Barrel Fermented, American Oak Barrels:

- ☐ **Smell and taste the differences of a different oak barrel.**
- ☐ **American oak exhibits coconut, vanilla, cinnamon, caramel, toasty flavors.**



Kendall-Jackson, Estates Grown

Vintner's Reserve Chardonnay

Key Points

- 100% Jackson Estates Grown Chardonnay
- Grown in California's cool coastal vineyards
 - ❖ Santa Barbara County for mango and pineapple flavors
 - ❖ Monterey County for citrus and lime flavors
 - ❖ Mendocino County for apple and pear flavors
- Handcrafted in small vineyard lots throughout the entire winemaking process.
- Whole cluster pressed to retain the fresh fruit qualities without the bitterness from stems and seeds.
- Barrel fermented in French and American oak barrels for richness, toastiness and complexity.
- *Sur lie* aged for our signature velvety texture and creamy flavor.

Thank You

