



WINE STYLE GUIDE

CHARDONNAY

FERMENTATION PROTOCOL

VINEYARD

1. LalVigne Aroma™ (LA) increases glutathione as well as the precursor for 3MH (tropical/citrus) giving elevated and stable aroma compounds. This foliar spray is used twice. Once at 5% veraison and again 10-14 days later. The dosage is 1.21 kg/acre (2.7 lb/acre) each time.

HARVEST, TRANSPORTATION AND PRE-FERMENTATION

2. Harvest date and process control are critical to flavor development, optimization and wine style.
3. Optimizing flavor and aroma:
 - a. Extracting thiols from the Chardonnay grape skins when tropical/citrus notes profile is desired can be achieved using 20 g/ ton of Lallzyme Cuvee Blanc™ and giving a skin contact time of 6-8 hours. If skin contact is not desired Scottzyme® Cinn-Free or Pec5L can be used at pressing or settling.
4. Controlling early oxidation of aromas and color:
 - a. To scavenge quinones (pre-cursor for oxidation) use 30 g/hL (2.5 lb/1000 gals) Glutastar™.
 - b. To scavenge oxygen and assist with protein removal/stabilization, add 5 g/hL (0.42 lb/1000 gals) of FT Blanc™, FT Blanc Soft™ or FT Blanc Citrus™.
5. Settling aids can be used to reduce the solid content as well as provide organoleptic advantages.
 - a. Depending on your goal, trial Bentolact S and/or Freshprotect.
 - b. Rack once fining aid has settled to pre-determined, pre-fermentation solids goal.

FERMENTATION PROTOCOL

6. See chart on following page.

POST-FERMENTATION

7. Avoid ML (unless desired) and the oxidation of the volatile aromatics. Add 20 g/hL (1.67 lb/1000 gals) of Pure Lees Longevity +™ to scavenge oxygen thereby protecting color and aromas. Bactiless™ 20 g/hL (1.67 lb/1000 gals) or Lysovin 30-50 g/hL (2.5-4 lb/1000 gals) can be used for bacterial stability, and Reduless™ to deal with aromatic defects relating to volatile sulfur compounds. Consider the use of a β -glycosidase (Scottzyme® BG or Rapidase® Revelation Aroma) to reveal any bound varietal aromatic compounds.

WINE STYLE GUIDE

CHARDONNAY

FERMENTATION PROTOCOL

STEP	MINERAL PROFILE	FRUITY PROFILE	TROPICAL / CITRUS PROFILE	BARREL FERMENTED PROFILE
Inactivated Yeast for Aroma & Color Protection	Add 30 g/hL (2.5 lb/1000 gals) Glutastar™ directly to pressed juice			
Pre-Fermentation Solids Goal	80 – 120 NTU'S	60 – 100 NTU's	60 – 100 NTU's	80 – 120 NTU'S
Non-Saccharomyces Yeast	Biodiva™ can be used to enhance aromas and mouthfeel Flavia™ can be used to enhance varietal characteristics like terpenes and thiols			
Yeast Strain at 25 g/hL (2 lb/1000 gals)	DV10™ or W15™	Cross Evolution, CVW5™ or VIN 2000	Exotics Novello or QA23™	CY3079™ , ICV D21™ , ICV D47™ or ICV 254™
	If hydrogen sulfide production is a concern, try ICV Opale 2.0™ (59-75°F)			
Fermentation Temperature (adapt per yeast strain)	56-78°F	62-72°F	56-75°F	55-68°F
Nutrient Regime at 2-3 Brix Drop*	Fermaid K™ 25-50 g/hL (2-4 lb/1000 gals)	Fermaid O™ 20-40 g/hL (1.7-3.3 lb/1000 gals)	Stimula Sauvignon blanc™ 40 g/hL (3.3 lb/1000 gals)	Fermaid O™ 20-40 g/hL (1.7-3.3 lb/1000 gals)
Inactivated Yeast at 2-3 Brix Drop	Opti-WHITE™ 25-50 g/hL (2-4 lb/1000 gals) if enhanced roundness is desired			
Nutrient Regime at 1/3 Brix Drop*	Fermaid O™ 10-40 g/hL (0.83-3.3 lb/1000 gals)	Stimula Chardonnay™ 40 g/hL (3.3 lb/1000 gals)	Fermaid O™ 10-40 g/hL (0.83-3.3 lb/1000 gals)	Fermaid O™ 10-40 g/hL (0.83-3.3 lb/1000 gals)
ML Strain	O-MEGA™ Sequential inoculation & partial degradation	Beta Co-Inoc™ Simultaneous ALF and MLF	No MLF. If malic acid is high, then a partial MLF with O-MEGA or VP41	Enoferm Beta™ Sequential MLF

*Additional nutrition may be required to secure the fermentation depending on starting YAN, sugar and individual yeast strain requirements. Avoid DAP when fruit flavors are desired.