Sulfur Dioxide-Free Winemaking with Viognier (2015)

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Summary:

Identically sourced Viognier was harvested, sorted, and destemmed mechanically. After processing the fruit was divided into two identical lots and pressed separately. 5g/hL of SO2 was added to lot 1 during press, no SO2 was added to lot 2. The lots were racked to tanks and fermented separately but identically, with the same additions throughout. After AF was complete, both tanks received an addition of 50 ppm SO2, and were then racked to identical but separate barrels for aging.

Lab Results:

	pH	TA (g/L)	AA (g/L)	%EtOH	Gluc+Fruc	Malic	TSO2	FSO2	DO
Control	3.66	5.96	0.39	13.55	79	210	50	5	0.23
SO2 Free	3.67	6.24	0.25	13.15	26	396	70	6	0.68

PCR Panel (cells/mL)		
	Control	SO2 Free
Acetic Acid Bacteria	19	None
Brettanomyces	343	20
Lactobacillaceae	4.59E3	523
Oenococcus	1.72E7	3.77E5
Peiococcus	<10	<10
Saccharomyces	4.45E6	3.23E7
Zygosaccharomyces	170	30

Sensory Results:

There was a significant sensory difference ($p<0.01$) between the Control (traditional) and Trial (SO2 free). Of those that responded correctly and indicated a preference (n=23) 47.8% preferred the control and 52.2% preferred the trial.