# **Faults Flaws and as Finishes**

Chad Redlin November 8, 2023

# [Methoxy] Pyrazine

**Characteristics:** green bell pepper, freshly cut grass, gooseberries, canned asparagus.

Wines: Sauvignon Blanc, Cabernet Sauvignon, Cabernet Franc, Carmenere

**Regions:** New Zealand Sauvignon Blanc, cooler vintage Bourdeaux and Napa Cabernet Sauvignon, Loire Valley Cabernet Franc

**Cause:** Pyrazine occurs in certain grape varieties, especially those grown in cooler climates.

**Controlling Factors:** Because it is naturally present in the grape, Pyrazine is not controllable once the winemaking process has begun. Its concentration in the grape is a function of ripeness. Pyrazine levels drop as grapes ripen. Increase levels by harvesting earlier. Decrease levels by harvesting riper grapes.

#### Grey Rock Sauv Blanc Reserve

## \$19.99

750ml



#### Brand Story

Greyrock produce super premium New Zealand wines, made with ripe flavour-filled grapes sourced from carefully selected alluvial gravel vineyard sites in Marlborough and Hawke's Bay. Greyrock wines are hand-crafted by a team of experienced Winemakers to produce rich, soft and approachable wines of exceptional quality.

The Greyrock, or carved stone, featured on the label is hand carved by Hawke's Bay artist and sculptor Ema Scott.

#### **Points of Distinction**

- Grey Rock from Sileni Estates, named after the Sileni who appeared in Roman mythology alongside Bacchus, the god of wine.
- The Sileni celebrated good wine, food and company.
- Sileni Estates was founded by Graeme Avery and Grant Edmonds, one of New Zealand's most talented winemakers.
- Why to Buy: Elegant and perfectly balanced with a lingering finish.

#### Review

Marlborough, New Zealand- Richer and more intense than its sibling, flavors of passionfruit, stonefruit and a hint of gooseberry lead to ripe grassy notes. Crisp and perfectly balanced, this Marlborough Sauvignon Blanc leaves a lingering finish and is a tasty treat for any occasion.

#### **Taste Profile**

Crisp, Tropical, Fruity, Light-bodied

Style White: Crisp, Oak, Elegant, Off-dry, Sweet Flavors: Apple, Pear, Pineapple, Melon, Grapefruit, Orange, Other: Acidity: High, Medium, Low Oak Level: High, Medium, Touch of, None Body: Light, Medium, Full Rating: 숫 숫 숫 숫 숫



## **Diacetyl**

Cause: Largely a byproduct of MLF via metabolism of citric acid to diacetyl.



**Characteristics:** nutty, buttery, butterscotch, rancid butter.

Wines: Chardonnay, Pinot Blanc, most reds in subdued levels due to MLF.

### **Controlling Factors:**

	Maximizing	Minimizing
Strain Choice	Choose a strain with a high potential for diacetyl production (ENOFERM BETA <sup><math>\infty</math></sup> and PN4 <sup><math>\infty</math></sup> ).	Choose a strain with low potential for diacetyl production ( <u>VP41<sup>™</sup></u> or <u>O-MEGA<sup>™</sup></u> ).
Contact Time with Lees	Rack off lees or wait a few days for the yeast to transition to a metabolically inactive state after primary fermentation before adding bacteria.	Complete MLF on the lees and monitor diacetyl levels. When diacetyl has reached the desired level, add SO <sub>2</sub> and rack off lees.
Timing of ML Inoculation	Add malolactic bacteria after primary fermentation (sequential fermentation). Filter wine to remove yeast or rack off the lees prior to inoculation with malolactic bacteria.	Co-inoculate with yeast and malolactic bacteria (simultaneous fermentation). If bacteria is added after alcoholic fermentation, let the wine stay on the lees until a desired level of diacetyl is reached.
Wine Conditions	Adjust to conditions that will favor a longer MLF - Lower pH and cooler temperature.	Adjust to conditions that will favor a quicker MLF - Higher pH and warmer temperature.
Stirring During MLF	Stir during MLF.	Do not stir during MLF.
Addition of SO <sub>2</sub>	Add SO <sub>2</sub> immediately following the completion of MLF (when Diacetyl is highest).	Complete MLF, then monitor diacetyl and add SO <sub>2</sub> when it reaches the desired level.

#### References

\* <u>https://scottlab.com/managing-diacetyl-production-during-malolactic-fermentation:</u> <u>https://scottlab.com/managing-diacetyl-production-during-malolactic-fermentation</u>

\*\* <u>The 'buttery' attribute of wine—diacetyl—desirability, spoilage and beyond - ScienceDirect:</u> <u>https://www.sciencedirect.com/science/article/abs/pii/S0168160504002867</u>

## Fountain Grove Chardonnay Monterey 2021

## \$24.99

750ml

Rating Beverage Dynamics - 91	Brand Story In search of the Eden of the West, Fountain Grove was settled in 1875 on lush, rolling hills, blanketed by perfect afternoon exposure. As stewards of the land there was a deep appreciation every day for the beauty that came with the setting of the sun, and the breeze that blew off the Pacific.
- <u>- 9021</u> -	<ul> <li>Points of Distinction</li> <li>Fountain Grove Chardonnay is a tribute to the depth and vibrancy of the west and the settling of the Fountain Grove land in 1875.</li> <li>Fountain Grove Chardonnay Monterey is classic, but lavish style is decadent and layered, with bracing acidity and mouthwatering clarity.</li> <li>Why Buy: Classic Chardonnay with full-body and golden ripe fruit nose with brioche notes.</li> <li>Who May Like: Customers looking for a classic Chardonnay with elegance and layers.</li> </ul>
FUUNTAIN GROVE	Review California - Monterey - This is a wine that will please every chardonnay lover. The palate is full of tropical fruit and melon notes, rounded out by hints of oak and butter. A staple for any dinner party. Taste Profile Oak, Golden Apple, Biscuit, Pear, Full-bodied

Style White: Crisp, Oak, Elegant, Off-dry, Sweet Flavors: Apple, Pear, Pineapple, Melon, Grapefruit, Orange, Other: \_\_\_\_\_ Acidity: High, Medium, Low Oak Level: High, Medium, Touch of, None Body: Light, Medium, Full Rating: ☆☆☆☆☆ Notes: \_\_\_\_\_\_



# Brettanomyces ("Brett")

**Cause:** Brettanomyces is a yeast genus that can contaminate a winery, wine barrels, and can be transported in with the grapes. If allowed to propagate, it can generate a number of chemicals. Depending on the molecule and amount of the chemical, the effects can range from subtle good character additions that create new dimensions to the wine, to unflattering, dominating aromas and flavors that render the wine undrinkable. Brett affects red wines much more than white wines as discussed below. White wines are not able to benefit from it as reds are.

### **Characteristics:**

Good - smokey, spicy, cloves, funk, bacon, gamey.

Bad - barnyard, horsey, sweaty saddle, Band-aid, sweaty gym socks

### **Controlling Factors:**

It is said that Brett widely exists in the environment, and its development in wine can occur at any winemaking stage if the right conditions exist. To prevent its growth, the best practice is to make the winery an inhospitable place for Brett. Keep in mind that Brett can persist in the bottle.

Sanitation – thorough sanitation of all equipment in the winery can help to keep Brett contamination at a minimum. Barrels are a significant source because the yeast can persist deep in the grain of the wood making it difficult or impossible to eliminate.

Minimize O<sub>2</sub> During MLF – Brett needs O<sub>2</sub> to form those barnyardy chemicals.

Molecular  $SO_2$  – Maintaining sufficient levels of molecular  $SO_2$  will help keep the yeast in check. Since the concentration of molecular  $SO_2$  is a function of pH, it follows that wines with lower pH are less, and higher pH are more, susceptible to Brett population growth. It also follows that the time period between alcoholic and malolactic fermentation is the highest risk because  $SO_2$  levels must be kept low for MLF to progress.

Corrections - Chitosan fining, NO BRETT INSIDE (Scott Labs), sterile filtration

# Volatile Acidity (VA)

**Cause:** Volatile acids created by the metabolism of ethanol and glucose to primarily acetic acid, but also lactic, formic, butyric, and propionic acids. It will also result in the formation of other unpleasant aroma compounds like ethyl acetate and acetaldehyde. Acetic acid (vinegar) is the predominant acid formed by acetic acid bacteria like Acetobacter Aceti, the bacteria used to make vinegar.

**Characteristics:** vinegar, fine balsamic, kombucha, pleasing tartness and fruitiness, heightened character and complexity.

**Wines:** Wines referred to as "lifted" or "high-toned" on wine label tasting notes, sweet wines, especially when botrytis is present, or damaged grapes are used, Port, Sauternes, Amarone della Valpolicella.

### **Controlling Factors:**

- Acetic acid bacteria require oxygen to grow, so control the level of air exposure. Higher air exposure = Higher VA
- VA producing level of yeast strains
- Sulfur dioxide addition. Higher SO<sub>2</sub> = Lower VA
- Filter out bacteria
- Blending to balance
- Treat using reverse osmosis to remove VA (expensive)

## Halos de Jupiter Chateauneuf du Pape 2019

## \$54.99

750ml

## A RHOME BLEND

01

Rating

Wine Enthusiast - 95

Brand Story

Philippe Cambie and Michel Gassier started the Halos de Jupiter project more than 15 years ago with the objective of selecting, aging, and blending exceptional wines from the southern Rhône. At the passing of Philippe, Michel and the partner growers decided to continue this magnificent adventure, and to honor the memory of Philippe.

#### Review

Rhone, France- " The richly textured wine is packed with succulent blackplum and boysenberry flavors but spry and lifted too, edged by salty, stony minerality and a delicate white-pepper finish."

#### **Taste Profile**

Elegant, Black Currant, Cherry, Full-bodied

Style Red: Concentrated, Intense, Fresh, Elegant, Sweet Flavors: Cherry, Strawberry, Raspberry, Blackberry, Plum, Other: \_ Acidity: High, Medium, Low Tannins: Firm Tannins, Ripe Tannins, Soft Tannins, Easy Drinking Body: Light, Medium, Full Rating: ☆☆☆☆☆ Notes:



# **Oxidation**

**Cause:** Oxidation occurs when the wine is exposed to oxygen for extended periods of time. It also contributes to the development of other flaws/faults (VA, Brett, diacetyl, aerobic bacteria). Many wine styles utilize this flaw as a prominent characteristic.

Characteristics: Earthy, nutty, yeasty and savory

Wines: Sherry, Tawny Port, Madeira, Orange Wines

### **Controlling Factors:**

- Grape quality
- Head space/ullage/topping up
- Processing technique
- Bung, plug, cap, cork, air lock management
- Inert gas blanketing/sparging/purging
- Aging vessel (wood, plastic, glass, stainless steel)
- Cork OTR (Oxygen Transfer Rate)
- Sulfite management
- Color and taste monitoring

#### Quinta das Carvalhas 30Yr Tawny

## \$104.99

lotal

Wine

#### 750ml



Body: Light, Medium, Full Rating: ☆☆☆☆☆ Notes: