

Micro-oxygenation 101



Wine Grenade

Wine Maturation – Redefined.

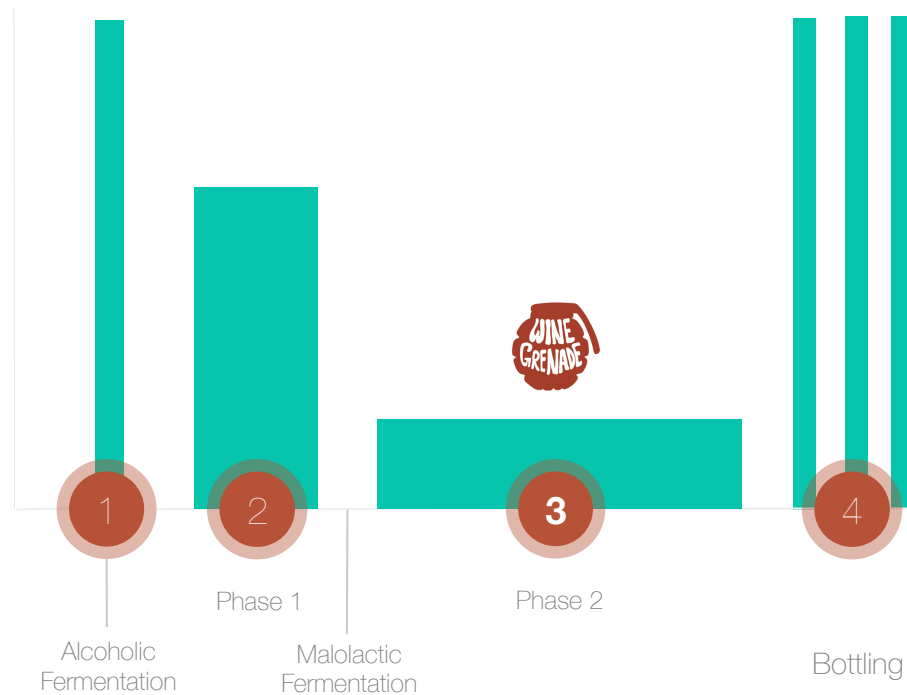
Wine Grenade gives winemakers the **control** and **insight** needed to create great wine, year after year.

It's micro-oxygenation, but not as you know it. Our patented oxygen diffusion process delivers superior maturation outcomes with less expense. Our smart, cloud-connected devices have been described as a step-change in wine maturation technology.



When to micro-ox?

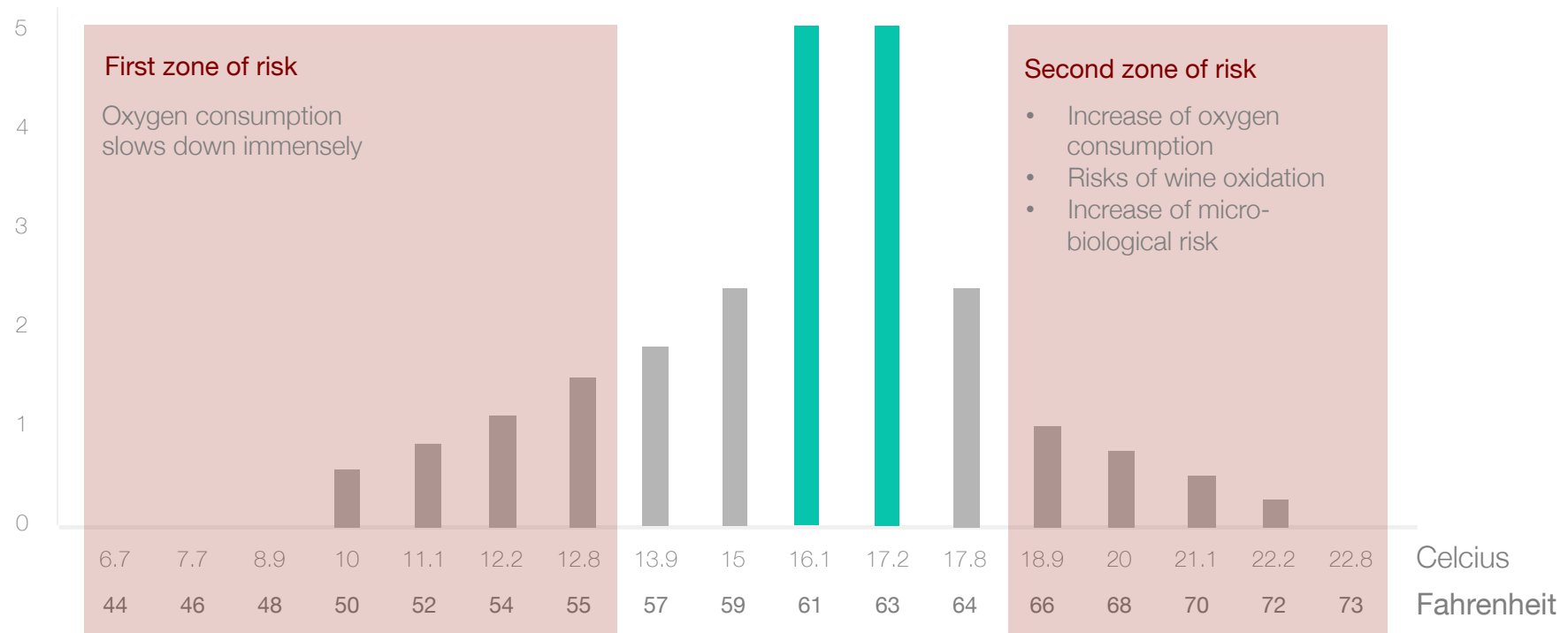
Dose O₂



1. Oxygen addition for yeasts: 5-10mg/l punctual addition at V_{max} (end of yeasts growth phase)
2. Phase 1: Structuration phase: From 0 to 60 mg/l/m. Rates depend on: Tannins/anthocyanins ratio / Types of tannins (Reactive, non-reactive, dry) / Level of concentration of wine / Final target of wine profile
3. Phase 2: Harmonization phase with Wine Grenade
 1. Target:
 1. Softening and harmonization of structure / tannins
 2. Protection of aromatic freshness (prevent reductive characters)
 3. Decrease dryness
 4. Increase oxidation resistance
 2. Rules: 10 x less than phase 1 (0 to 6mg/l/m)
 1. Use low addition rates (barrel model)
 2. Never reach acetaldehydes
 3. Keep working if reactive tannins remains / stop working if dry tannins appear
 4. Decrease the dose relative to temperature in winter
4. Before bottling: Cliquage to manage reductive power (punctual addition of 2 mg/liter)

Temperature management

Mg/l/m



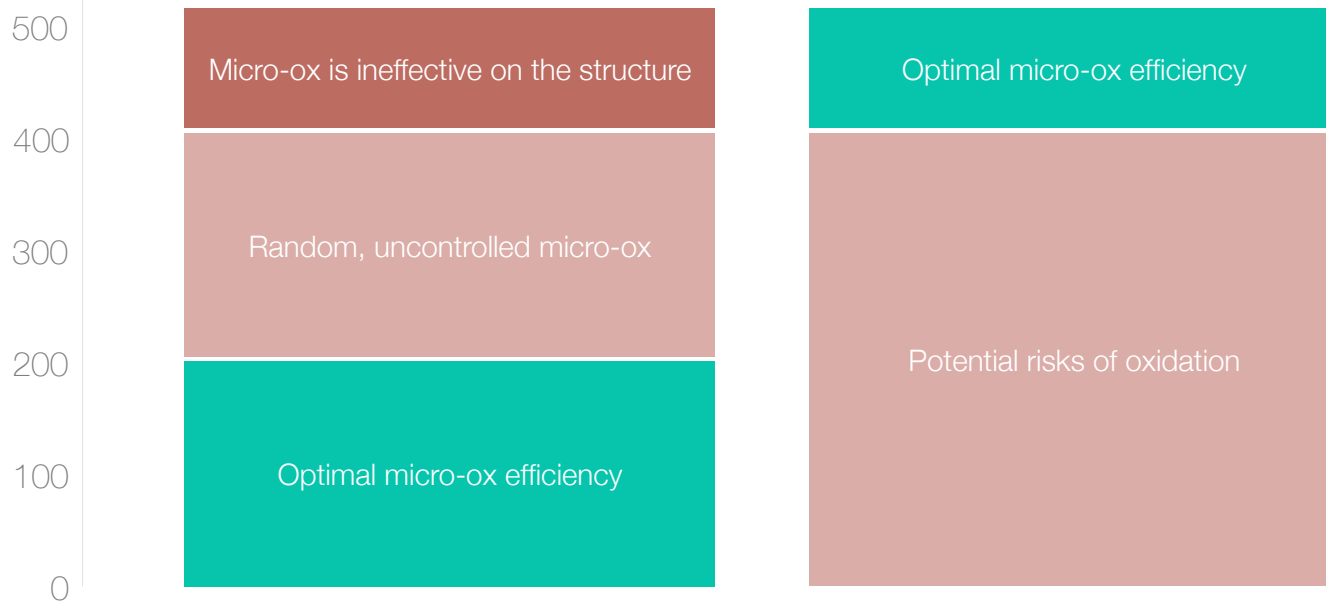
Maximum addition flow of O₂ (in mg/l/m) in function of temperature

Turbidity management

Turbidity, NTU

Red Wine

White wine



Manage turbidity: Early blending to rebalance the wine / Cool tank / Enzymatic treatment / Clarification / Centrifugation or filtration

Perfect for **balanced** varietals

Micro-oxygenation is effective on wines that you would otherwise mature in oak barrels and is generally safe in Phase 2 (Malolactic fermentation). However, unbalanced varietals require more care.

Balanced (4 tannins + 1 anthocyanin)
Syrah Carignan Cabernet-Sauvignon Malbec Gamay Merlot
Most effective

Unbalanced (any other ratio)
Grenache Mouevèdre Pinot Noir Cabernet Franc Sangiovese Merlot
Effective, but caution required

Contact us

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