

RED WINE TRADITIONAL VINIFICATION LOW SO₂

Objective:
Oxidation prevention and microbiological control



STEP	PRODUCT	Dose	Composition	Properties
Harvest Hygiene Harvest Maturity Transport Bioprotection (Add yeast @ bin or reception dock) or Biocontrol	SELECTYS® LA MARQUISE OENOVEGAN® MICRO	T°C <18° C pH <3.5 0.5 g/hl 3-10 g/hl	<i>Saccharomyces galactose</i> - (ex-bayanus) Chitosan	Prerequisite: must be perfect from the harvesting equipment to the winery. Very good state of health is imperative. Harvesting at night or in the early morning. Avoid advanced maturity (µbio risk), low pH necessary. Medium occupied by the yeast used in AF producing very little SO ₂ . Curb the growth of spoilage microorganisms such as <i>Brettanomyces</i> (option).
Reception Acidification (optional)	Tartaric Acid	pH # 3.5		
Vat filling Vat inerting Homogenization Tannin treatment Diwine®	CO ₂ /Argon Pump-over OENOTANNIN MIXTE MG DIWINE® PREVENTION	Gas mat 40 cm 1 Tank volume 20-40 g/hl 30 g/hl	CO ₂ (g)/Ar Chestnut tree tannins PVP/PVI-based complex	Homogenization. Powerful antioxidant. Reaction with dissolved O ₂ and polyphenol oxidases. Detoxification of the medium (metal fining) and reduction of the must's sensitivity to oxidation. Longevity and freshness of the wine.
AF Yeasting Nutrition Mid-AF (option) Extraction (d>1000)	SELECTYS® LA MARQUISE VIVACTIV® PREMIER VIVACTIV® CONTROLE d>1040 pump-over d<1040 pump-over Or punching down before mid- AF	20 g/hl 20 g/hl 20 g/hl 1 vol/d in 2X + O ₂ 0.5 vol /d in 2X (€2) 1 to 2	ADY Yeast derivatives, AA, survival factors Autolysates and yeast hulls	Secure fermentation. Low SO₂ production in the absence of stress. Critical homogenization pump-over (µbio) T° AF = 24-25°C then <25°C when d< 1020 Yeast Acclimation, AF control and VA production. To be added in the starter rehydration water. If bioprotection: adjust the assimilable N₂ consumed by non Sacchs. Difficult AF: detoxifies the medium, prevents AF from stopping and reactivates AF.
AF Vatting period Devatting	CO ₂ Controlled ventilation flows	1 X / day 1 to 2 weeks	CO ₂ (g)	Limit extraction to maintain freshness, fruitiness and color. Limit vatting (enzyme treatment possible to reduce duration). Option: Oxygenation by clicker: 3 mg/l / 5-6 days + closed circuit pump-over. Prevents acetic sting. Other option: filling the tank Duration to be limited according to: product target / tasting / risks. Separation of lees, flows, presses. Possible additional racking (+48h). Pressing in clean presses to avoid herbaceous flavours.
MLF inoculation - Co-inoculation (AF D+1 or 2) if possible - or end of AF	BACTELIA® CRESCENDO	Kit dose / X hl	<i>Oenococcus oeni</i>	Choice of inoculation type o be pondered. Operates in difficult conditions (high alcoholic strength..). Optimum T° = 18°C. Co-inoc: better control of Brett populations and ethanal level. MLF: Possible sulfiting (low SO₂) at the end of MLF + 7 days.
Ageing Tannin treatment Dissolved CO ₂ Stabilization If µbio problem	OENOTANNIN VELVET CO₂ MFT/flash-pasteurization OENOVEGAN® MICRO	[O ₂] <0.4 mg/L 10 g/hl 800 - 1000 mg/l 3-10 g/hl	Seed tannin CO ₂ Chitosan	Controls dissolved O ₂ : CO ₂ inerting + N ₂ injection during transfers. Use oenological products without SO ₂ => powders. Structures and protect the wine (dissolved O₂). Protection. Maintain [CO ₂] > 800 mg/l and adjust (600 mg/l) before use. µbio stabilization. <i>Brettanomyces</i> population control (option).
Bottling				Sulphiting (low SO₂)- Early bottling during winter.