

PROTOCOL NAME **ROT INFECTED FRUIT - WHITE WINE**

	PROBLEM
	Grapes affected by Botrytis cinerea (noble rot or grey rot) or general fruit rot often harbor unwanted fungal growth. The primary challenge is oxidative damage driven by laccase and unstable phenolics, which rapidly leads to browning, aroma loss and protein instability. SOLUTION
	• Fermcontrol Clear UP BIO to remove oxidised phenolics, phenolic debris and laccase substrates. • Fermcontrol ViniTannin Supreme for anti - oxidant protection and structural reinforcement due to laccase production which oxidizes polyphenols. PROTOCOL OBJECTIVES
	• To reduce impact by laccase enzyme by limiting oxidation through non - sacrificial oxidative buffering. • To adsorb oxidized phenolics and browning substrates, thereby reducing laccase substrate availability. • Reduce microbial load and clean up must from rot-affected grapes. • Preserve aromas by removing oxidised phenolic debris. • Detoxifying must while enhancing oxidative resistance and rebuilding phenolic structure. TIMING OF APPLICATION
	• Apply at juice stage, ideally immediately at settling and racking. • Early intervention before fermentation offers the highest efficacy.

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PROTOCOL GUIDELINES

- Conduct in vineyard sorting and cellar sorting prior to pressing.
- All grapes to be whole bunch pressed with a SO₂ addition of 50 ppm.
- Where possible, collect the free run or Cuvee fraction at 450 - 500 L / ton with the remaining 100 - 150 L / ton considered press fraction.
- Dry ice must be used throughout the pressing in the juice tray and receival tank to avoid excessive oxygen uptake.
- A strong dose of pectinase enzyme can be dosed throughout pressing at the juice tray in intervals.
- During settling, and depending on the severity of the rot, a addition of 30 - 50 g / hL **Clear UP BIO** must be included and homogenized. Allow contact time of 1 - 2 hours prior to any further additions.
- A bentonite addition of up to 80 g / hL is permitted in order to hasten clarification of juice.
- Ensure settling temperature is set to below 10 °C
- Allow 36 - 48 hours settling, after which the juice can be racked with 5 g / hL **ViniTannin Supreme**. This acts as an oxidation buffer and in certain cases a sacrificial agent, oxidizing before aroma compounds.
- Inoculate with a robust yeast such as **VitiFerm Esprit** or **VitiFerm Alba Fria** for tank fermented wines, and **VitiFerm Sauvage** for barrel fermented wines at 30 g / hL.
- In the event that YAN has been depleted due to the infection, **FermControl BIO** additions should be included in 3 x separate additions.
- Ensure fermentation at higher temperatures to reduce stress on the yeast.
- Immediately post fermentation, rack the wine off its ferment lees and continue to work reductively.
- If off aromas persist in the wine, a fining bench trial can be conducted with **ViniFIX** and the desired dose included to remove remaining inhibitory substances.

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APPLICATION INSTRUCTIONS

- Dissolve **Clear UP BIO** in 10x its weight of clean must, juice or water.
- Dissolve **ViniTannin W** separately and add to the vessel ensuring even distribution.
- Add slowly to the vessel with continuous mixing or pump over.



EXPECTED OUTCOME

- Reduced juice browning, aroma loss and protein instability.
- Cleaner, fresher must for fermentation.
- Improved colour and aromatic stability.
- Protection against laccase induced oxidation and enhanced wine longevity.



TECHNICAL NOTES

- SO₂ must only be added at pressing stage at 50 - 60 ppm.
- Waiting 8 - 12 hours allows sulphur to react and bind so that **Clear UP BIO** can perform efficiently.
- Suitable for both wild and inoculated fermentations