



Seasonal Quick Tip: Sour Rot

Recommendations, Precautions and Treatments of Sour Rot Affected Grapes



Sour rot is often caused by undesirable yeast and bacteria however; it can occasionally be seen in association with other fungal rot diseases including Botrytis, Penicillium and Rhizopus. Sour rot pathogens enter grape berries through cracks and wounds caused by wasps, hail, birds, powdery mildew, botrytis, or by berry splitting caused by excessive vigour in tight clusters. During favourable conditions (warm moist weather, sugar accumulation in berries) the fruit fly will lay hundreds of eggs and start a new generation every ten to twelve days. High infection levels and frequent sprays have a tremendous impact on the winemaking process and the overall sensory quality of the resulting wines. Apart from the powdery mildew fungal taint in the wine, the accumulation of sprays and for organic farms the accumulation of molecular sulphur have a further impact on the fermentation kinetics and final sensory.

Stages of Intervention

1) Vineyard and Harvest

- Determine type of rot
- If possible, cut out vinegar nests and hand pick (to avoid selection of sour rot grapes)
- Consider earlier harvest date and pick when cool (morning or nights)

2) Crush & Press

- Early SO₂ addition of min. 50-60 ppm at crush or in the combined harvester
 - Reductive treatment of juice: low oxygen input, SO₂ control
 - Early pH control and adjustment below 3.4
- Whole cluster pressing if possible. No maceration time or cold soak
- 3) Maintain at 18-20°C for 24-48 hours, as soon as you see some MLF activity (verify by pH change or malic acid analysis) add the "pied de cuve" to the entire wine volume.
Stir well to homogenise

3) Clarification

- Fast clarification with cooling if possible
- Treat spray residue and fungal odours in juice by using a combination of active carbon, bentonite and **ClearUp BIO** (rule of thumb = 3 g/hL of each fining product per 1% of rot)
- Aim for 50-80 NTU, using flotation techniques or enzymes (e.g. **ClearUp BIO**)
- If levels of Sour Rot are greater than 10%; juice pasteurisation is recommended to inactivate laccase

4) Fermentation Management

- Select robust yeast with short lag phases, low nutrient requirements and fast conversion of sugars. We strongly recommend VitiFerm™ BIO Rubino Extra, Esprit or Vulcano as they offer beneficial Bio-Protection effect against spoilage yeasts.
Higher addition rates of 40g h/L are recommended
- We recommend the addition of yeast nutrition FermControl™ BIO at a higher rate than standard (up to 60 g/hL) to ensure a high supply of key trace elements, micro-nutrients, and amino acids are available to the yeast throughout fermentation; in order to minimise the output of fermentation by-products and to assist in keeping total SO₂ low
 - Moderate to higher fermentation temperature, at least 18-20°C
- After completion of fermentation fast racking and early SO₂ stabilisation after acetaldehyde has been degraded