

RED WINEMAKING WITH GRAPES CONTAINING ROT

1. Rot Assessment

- Visual Test
 - Count # of infected clusters/vine = incidence (expressed as percentage)
 - Number of berries/cluster = severity
 - < 5% incidence, no problem
 - 5-20% treat with care-consider severity
 - >20% extreme measures to save fruit
- Oxidation Protection – Quick O₂ test
 - Place sample of juice in beaker on bench
 - Let sit 1-2 days for browning
 - Evaluate for additional treatment
 - Check throughout fermentation

2. SO₂ Management

- The active enzyme in a *Botrytis* infection is polyphenol oxidase or laccase. This enzyme requires molecular oxygen to work, turning the wine brown. SO₂ is an O₂ scavenger and can help inhibit the enzyme. When *Botrytis* is present sour rot is usually associated. SO₂ also reduces the bacteria and spoilage from this condition.
- At Reception in Hopper: 50-100 PPM high normal doses.

3. Enzymes

- Use Lallzyme EX, Lallzyme EX-V or Scottzyme Color Pro at the high range of dose recommendations.
- Do not cold soak. Short maceration time is best with rotten fruit.

4. Tannins

- Use 300-600 PPM FT Rouge or FT Rouge Soft, splitting half at crusher and the balance at first or second pump over.
- Splitting the dose will protect the wine against the laccase that is released from underneath the grape skins.
- Do not work the grapes too much, the enzyme will increase extraction.
- Additions of natural yeast derivatives such as Opti-RED and Booster Rouge may also have a positive impact on the colloidal balance of the wine.

5. Yeast Inoculation

- **Yeast Hulls** – 25g/hL (2lb/1000gal) – may be added in the fermenter if mold character is apparent.
- Rehydration Nutrients –**GoFerm or GoFerm Protect– very important!!**
- Inoculate yeast at 30 g/hL (2.5lb/1000gal) instead of 25g/hL (2lb/1000gal). The higher dose will improve kinetics. In these situations a quick fermentation is best.

6. Yeast

- Select yeasts that produce low VA and SO₂ but express good fruit character and build mouth feel (T73, ICV D21, CSM, BM4x4, L2056, ICV GRE and ICV D254)
- Do not use MLF unfriendly strains (K1 and EC1118).

7. Fermentation Nutrient Additions

- Healthy Fermentations – do not stress yeast.
- Use Fermaid K and/or Fermaid O depending on your nitrogen needs.
- DAP favors formation of sulfide off-flavors, use only in very low N juice.

8. Maceration and Rackings

- Shorten maceration to 4 days instead of 6-8 days depending on results of O₂ test.
- Rack off lees halfway through fermentation – delestage, if possible.
- Press off at 1 bar- keep press wine separate. Treating press with Colle Perle or lees aging with Noblesse can reduce harsh phenolics.
- Pressing with the lowest possible pressure is critical.
- Blend press wine back according to O₂ test.

9. End of Alcoholic Fermentation

- Rack 24 hours after fermentation done.
- Rack again 2 days later.
- Keep running Quick O₂ test, respond accordingly.

10. Malolactic Bacteria Selection

- Choose strains tolerant to high SO₂ like MBR VP41 or MBR PN4 and use in conjunction with Opti'malo Plus nutrient. Using 1-Step strains like 1-Step VP41 or 1-Step Alpha work very well and may improve success.
- Inoculate as soon as possible, right after pressing, even if wine is not totally dry.

11. SO₂ levels and Additional Tannins

- Get SO₂ levels up once MLF is finished. Do not leave wine unprotected.
- Adding Tannin Estate, Tannin Complex or Tannin Refresh post fermentation will help protect the wine from oxidation and continue building the tannin structure. This is very important if the grapes had heavy fungal infections.

12. Filtration

- Scottzyme KS can be beneficial to help filtration.

Document Edited 9/16/10