Powdery Mildew - Oidium - Uncinula necator

What to expect:

When processing fruit infected by powdery mildew, must aroma and chemical composition may change, causing the problems below in juice/wine.

- Loss of yield and quality of grapes causing down grading
- Increased fixed and volatile acidity
- Increased alcohol, phenolics and pH
- Reduction in sugar and nitrogen
- Increased fermentation duration.
- Reduced colour causing browning
- Increased B-glucans causing filtration and clarity problems
- Increased chance of botrytis
- Bitter palate as well as other off tastes.
- Reduction in varietal characters

Yield

Mannozym
Fitoproteina XP*
Flottobent Bentonite
PlusGran gel Bentonite

Filtration

Zimaflow Liquid enzyme Fitoproteina XP * PlusGran gel Bentonite

Colour

Extrared liquid enzyme to maximise colour extraction.

V-Tan, Colorstab SG, Ti

Premium, Premium Color -

Tannins to fix colour, combat Laccase, antioxidant, freshening.

Tannins

X-Pro Identity Red

MPA for stability and mouthfeel.

*Vegetal formulation

Strategies for processing and treating

- Use a higher rate of sulphur dioxide (SO2) at harvest (in the range of 60-100 mg/L depending on severity).
- Minimize skin contact and extraction, avoid cold soak
- Assess for Bitter palate as well as other off tastes during processing
- If moldy characters are observed, fine with bentonite and or carbon.
- Cold settle or float to achieve lees separation.
- Use additional enzyme to aid settling.
 Rack and process separately the lees (higher solids) fraction.
- Inoculate yeast no wild ferments
- Check yeast assimilable nitrogen (YAN) levels
- Monitor VA, pH, TA, RS and alcohol

Bitterness

Fitoproteina P*
Gel Grade 3
Fitoferm*
X-Pro Identity White
X-Pro Identity Red
MPA for stability and mouthfeel.

Nitrogen

V Activ Premium (yeast reactivation and fermentation regulation) includes DAP.

V-Starter Arom and V
Starter TF
organic nitrogen based.

Aroma

<u>Carbocromos Super</u>*- high purity vegetal carbon specifically targeting aromatic purity.





Useful links

AWRI-Powdery Milk Spray to combat powdery

Wineanorak-Powdery

AWRI - Botrytis

Wine Science – Ron S. Jackson

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