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Viognier

International value: $3-5 / bottle F.O.B.
Challenger of Italian Sicilian
24 month longevity

= The action participates positively to the wine longevity

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General process

1. Hand picking

2. Reception

3. Destemming and crushing. Temperature adjustment

4. Pulp and skin maceration

5. Turbid juice reception and segmentation

6. Juice static clarification

7. Alcoholic fermentation

8. Aging 1

9. Aging 2

pH goal in the bottle: 3.30-3.40

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Grapes

The Goal:
Get a sufficient potential in the material you are going to process!

- **Sound.**
- **Sufficient sugar ripening: always comes before aroma ripening. 2 maturity control a week**
- **Pulp:**
  - **No herbaceous aromas. Low acidity (relatively independent from pH). Easy to separate from skin**

- **Skin:**
  - **Easy to chew. No herbaceous aromas and low acidity during the first 3-5 chewing**

- **Seeds: not important if the rest is conforming. Remember: We are on the $4-6 FOB market!**

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Harvester and/or Reception

The Goal:

Protect your potential from oxidation
Start to diffuse interesting elements

- pH adjustment to 3.3 – 3.2
- SO2: 30-40 ppm
- Ascorbic acid: 50 ppm
- Cover with CO2
- Temperature <20°C as soon as possible (e.g. night machine harvest)
- Maceration enzymes (e.g. 3-4 g/hl Lallzyme Cuvée Blanc)

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Crusher Destemmer

The Goal:
Diffuse actively interesting elements
Continue to protect your potential from oxidation

- Destem
- Crush
- Add SO2: 10 ppm. Right after the crusher if there is possible oxygen penetration in the must
- Temperature <12°C as soon as possible (e.g. grape cooler before the press or the maceration tank)
- Continue CO2 external protection

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Maceration & Press

The Goal:
Diffuse actively interesting elements
Avoid diffusion of aggressive and reactive elements
Continue to protect your potential from oxidation

- **Temperature <12°C + CO2 cover**
- **Add SO2: 10 ppm. During the filling of the press or maceration tank (unless there is a closed circuit from the crusher)**
- **At least 2 hours pulp contact: to release the interesting grape macromolecules and aromatic precursors**
- **Separate juices at 0,4 bar**
- **Open the press. Add 10 ppm SO2. Press again. Treat separately the juice > 0,4 bar**

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Juice reception & segmentation

The Goal:
Segment potentially dangerous juice
Continue to protect your potential from oxidation

- Adjust pH to 3.3 – 3.2
- Add SO2: 20-30 ppm (no MLF) or 10 ppm (MLF) in the juice
- Cover continuously with CO2
- Separate the free run + juice <0,4 bar
  - Sensory goal: green hues, sufficient fore mouth volume, no rugosity, no herbaceous aromas
- Add 1 g/hl enzymes (e.g. Lallzyme C-Max) if Brix >23
- Juice >0,4 bar. Add SO2: 30-40 ppm. Treat with 100 ppm PVPP

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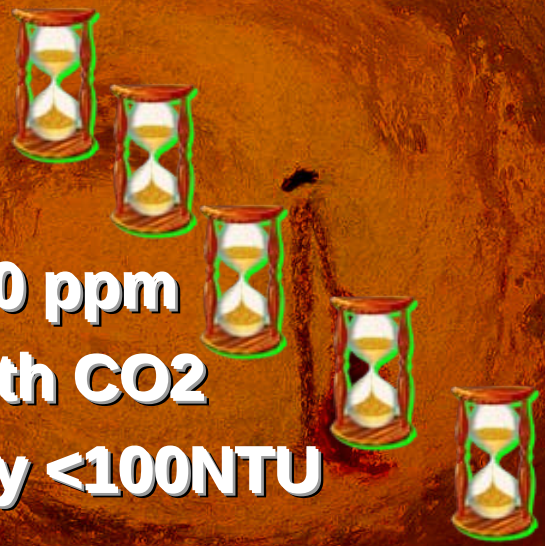
Juice static clarification

The Goal:
Eliminate negative solids
Continue to protect your potential from oxidation



- Temperature <10°C
- Adjust pH to 3.3 – 3.2
- Check Total SO2: 30-40 ppm
- Cover continuously with CO2
- Sediment until turbidity <100NTU

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Alcoholic fermentation (1)

The Goal:
Continuous and regular fermentation with good potential yeast
Build the colloidal structure, express variety potential
Continue to protect your potential from oxidation

- Choose the right strains (e.g. 50% with D21, 30% with Cross Evolution, 20% with CY3079)
- The right ADY dosage: 30 g/hl if <23 Brix; 40 g/hl if >23 Brix
- Yeast protection during rehydratation (e.g. FortiFerm)
- Direct inoculation after temperature acclimatizing
- Add 30 g/hl OptiWhite
- Temperature between 15 and 17°C






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Alcoholic fermentation (2)

- At one third of sugar depletion:
  - Add 30 g/hl Fermaid K
  - Add 10 mg/L oxygen (single dose macro-oxygenation)
- Make regular juice agitation all through fermentation
- Avoid pure DAP addition and automatic copper fining
- Manage sulfur off flavors with Fermaid, OptiRed, micro-oxygenation (no more than 1 mg/L/month), ascorbic acid… before any copper fining
- Keep CO_2 cover

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Alcoholic fermentation (3)

- If needed (juice tasting and pinking on-time test): treat with PVVP during fermentation
- If needed (local experience), treat with bentonite during alcoholic fermentation: more efficient and less stripping effect on colloids and aromas
- 10% of the commercial lot: inoculated with D254 and fermented with 3 g/L chips French oak medium plus. Add extra longevity and volume without giving oak character to the final blend.
- When 20-10 g/L residual sugar. If the wine has not the sufficient mouthfeel or if there is a beer-like bitterness: add 20 g/hl OptiRed + 1g/hl ascorbic acid and stir

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Malolactic fermentation (50% of the lot)

The Goal:
Go on building the colloidal structure
Continue to protect the wine from oxidation
Avoid the development of sulfur off odors and ATA characters

- Rack the alcoholic fermentation tank right at sugar depletion. CO_2 protection.
- Adjust temperature to 18°C
- Inoculate immediately (e.g. VP41)
- Keep CO_2 cover and stir 2 times a week until malic acid depletion
- Monitor malolactic regularly

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Aging. First stages

The Goal:
Go on building the colloidal structure
Continue to protect the wine from oxidation
Avoid the development of sulfur off odors and ATA characters

- **First step of aging starts in the fermentation tank: right after sugar or malic depletion. Adjust pH to 3.2 - 3.3, add 40 ppm SO2 and 50 ppm ascorbic acid. Stir.**
- **Next day: raking with CO2 protection.**
  - **Take yeast (+LAB) cells to go on building your colloidal / aromatic profile: cells from GoFerm Protect + ADY + OptiWhite + Fermaid + OptiRed…**
  - **Eliminate bentonite, PVPP and oxidized agglomerates that sediment in 24 hours**
  - **Adjust temperature to 10°C**

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I know…
the sulfite-reductase is still active in the yeast…

That's one of the many example where theory do not express in the complex matrix of natural juice: 10 years experimentation & winery experience

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Aging. Latter stages (1)

The Goal:
Go on building the colloidal structure and develop varietal expression
Continue to protect the wine from oxidation
Avoid the development of sulfur off odors and ATA characters

- Keep pH conforming and 1 mg/L molecular SO2
- Add glucanase enzymes to accelerate colloidal structure build up (e.g. Lallzyme MMX)
- Stir regularly: start with 2 times a week then slow down. Keep CO2 cover
- Try small ascorbic acid additions (1-2 g/hl) as soon as fruity character loose their intensity
- Rack under CO2 after 10-20 days

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Aging. Latter stages (2)

The Goal:
Continue to protect the wine from oxidation
Avoid the development of sulfur off odors and ATA characters

- **Rack under CO_2 after 20-30 days**
- **Try small ascorbic acid additions (1-2 g/hl) as soon as fruity character loose their intensity**
- **Keep the wine under 8-10°C until early bottling**
- **Add 50 ppm ascorbic at bottling**
- **Keep the wine under 5-6°C during summer**

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