Aging with different types of oaks: adaptations according to berry profiles and winemaking
Clean and sound
Conforming longevity*
Without excessive aggressivity

*And consistency of style in the consumer’s glass, until the last sip

Conforming wines
Wines limit to the target

Non conforming wines
Wines limit to the target

Non conforming wines
How to adapt the aging?

A precise example for a >12€ Pinot Noir

The goal is to be able to blend both lots during aging and get a conforming wine for the segment
Blocks Fr-Ambrosia Complex 400 g/hl

Yeast strain

Oak fragments

Yeast strain

Blocks Fr-Ambrosia Complex 300 g/hl

Yeast strain

Yeast protection

Inactivated yeast for maceration

Coinoculate yeast - bacteria

Lactic bacteria strain

OptiRed 20 g/hl

Yeast strain

Oak fragments

Yeast strain

Yeast protection

Inactivated yeast for maceration

Coinoculate yeast - bacteria

Lactic bacteria strain

VP41 One Step

Blocks Fr-Ambrosia Complex 300 g/hl

GoFerm Protect 30 g/hl

GoFerm Protect 30 g/hl
Absolute key-points with cold pre-fermentation maceration

- Adjust pH
- SO2
- Destem
- Crush
- Enzymes
- Oak fragments
- Yeast strain
- Inactivated yeast for maceration

Coinoculate yeast - bacteria

18°
Why it is a key moment adding toasted oak during maceration-fermentation

There are key combinations between fresh grapes elements and oak to reach axis A, B & C for style and longevity. Combinations mean oak diffusion and oak absorption. Oak, like OptiRed, is an important sponge to balance the fermenting juice for color and aroma stability.

Later you cannot combine GRAPE elements with oak: too late! You have forever lost some key actions.

Oak fragments are important elements in the fermentation regulation, particularly the sulfur off-flavors management.
Why it is a key moment adding toasted oak during maceration-fermentation (2)

- When you early saturate the fermenting juice with oak elements, the wine, later, has a far smoother behavior during aging with oak (barrels, staves, etc.)

- Good blocks during maceration is also an investment to preserve and use your expensive barrels longer
When you are devatting after maceration

- Clean the blocks with water, until water runs clear.
- Add it in a lower quality red wine during malolactic
Inactivated yeast

Rhythm of first rackings

Rhythm of first rackings

Inactivated yeast

1. Draining: add 1 g/hl Reduless Rack after 24 hours
2. Dryness: add 1 g/hl Reduless Rack after 24 hours
3. One week later: add 1 g/hl Reduless Rack after 24 hours

Add staves 250 g/hl

Add staves 150 g/hl

French oak, Ambrosia Complex

French oak, Ambrosia Complex

Here we are at the beginning of malolactic fermentation
Aging actions around malolactic

Add staves 250 g/hl
French oak, Ambrosia Complex

1. Stir 2 times a week
2. If malolactic is not active after 2 weeks in this tank: stir and rack after 2 days. Clean the staves. They follow the wine.

10

During all malo, slightly smoky plum/cherry aroma must be present to build the top quality mineral/fruity Pinot Noir style in the bottle. If it disappears, add an extra 50 g/hl staves. In other words, here you must smell more ripe smoky characters than your goal in the bottle on the market.
Advantages of malolactic with staves, even for top quality Pinot Noir

- New oak is a key point during malolactic to develop and stabilize your color and aromas: we have it, of excellent consistent quality with Ambrosia staves.

- You can adapt the dosage according to the grape sensory profile. Weaker the colloidal balance of the grapes, more oak to compensate the balance.

- You manage one or 2 tanks per lot: with one tasting, temperature, pH, agitations monitoring you manage precisely 100-300 hl. Precision is an absolute key point.
Advantages of malolactic with staves, even for top quality Pinot Noir (2)

- Efficient cost management. For example, 100% new barrels malo for a 12 euro a bottle Pinot Noir that would need much new oak during malo is a complete economical nonsense! While 300 g/hl Ambrosia staves in a tank is a good practice: technically efficient and cost acceptable.

- You’ll keep your expensive barrels longer and cleaner: you fill your barrels with a clean, right pH, sulfited (right molecular SO₂ level), not aggressive exchanging wine: better aging and better keeping of your barrels.
As soon as the malic acid is completely consumed
Preparation for barrels aging

**End of MLF:**
1. Add 1 g/hl Reduless + Tartaric acid to lower pH to 3.40 + 3 g/hl SO2.
2. Rack after 24 hours. Clean the staves with water. They follow the wine.
3. Add 20 g/hl Noblesse. 12°C. Wait 1 week or 2
4. Add 1 g/hl Reduless. Wait 2-3 days.
5. Rack
6. Add 10 g/hl Noblesse and go to barrels

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6. Add 10 g/hl Noblesse and go to barrels
Rack after 24 hours. Clean the staves with water. They follow the wine.

1 g/hl Reduless Tartaric acid + 3 g/hl SO₂

10-20 g/hl Noblesse 1-2 weeks 1 g/hl Reduless 2-3 days

10 g/hl Noblesse
Adjust molecular SO₂ to 0.8 mg/L

Fill the barrel while stirring

The goals are:
1. need stirring only once a month
2. be able to wait until May-June for the first racking
Many advantages with this pre-barrel procedure

- Fill barrel with wine with dead bacteria and yeast, well protected wine with 0.8 mg/L molecular SO₂. Unless you re-contaminate your wine, no future Brett & C° problems.

- Only clean lees (several rackings when the wine is protected) and new lees (new Noblesse) that don’t give problems when they compact: you are not obliged to stir more than once a month.

- The wine-barrel exchanges are soft: the wine is already saturated with oak elements (blocks and staves) and Noblesse buffers the oak-wine exchanges.

- Always keep your barrel room at 12°C.
Now comes the big economical choice: how much barrel volume in the blend, according to the market segment?
New Ambrosia French oak, Complex

1 year 1 zig-zag every 3 barrels

50% of the lot

50% of the lot
33%

New

1 year
1 Ambrosia zig-zag every 3 barrels

33%

1 year
1 Ambrosia zig-zag every 3 barrels

33%

2 years
1 Ambrosia zig-zag every 2 barrels
1 year
1 Ambrosia zig-zag every 3 barrels
500 g/hl Staves
Ambrosia Complex

33%
33%
33%
New Staves
Ambrosia Complex 30% of the lot

500 g/hl Staves
Ambrosia Complex 50% of the lot

600 g/hl Staves
Ambrosia Complex 50% of the lot
20-25% of the lot

600 g/hl Staves

Ambrosia Complex

75-80% of the lot
Classical mistakes to avoid

- Buy cheap barrels to get more barrels. Non-conforming barrels make non-conforming wine.
- Believe that green oak will bring «freshness» to your Pinot. It will bring herbaceous-moldy aromas and harshness, dryness and bitterness.
- Mistake dominant basic sulfur-off flavors for good minerality.
Some general advices for your oak budget

- For each lot, define your budget
- Intelligently divide it between good barrels and staves
- Calculate 600-700 g/hl staves for the « botti » or tank volumes. Over 12 euro/bottle, you cannot afford to remain short of staves
- Then calculate how many new barrels you can buy with the remaining sum
Working in large wooden vessels « botti »

12°C
Stir once a month

French oak, Ambrosia Complex
Start with 200 g/hl
After 2 months: add 100 g/hl
After 3 months: add 100 g/hl
After 4 months: add 100 g/hl

Noblesse
Start with 20 g/hl
After 2 months: add 10 g/hl
After 3 months: add 5 g/hl
After 4 months: add 5 g/hl

Every month, check if you need a 1 g/hl Reduless addition
Working in tank

French oak, Ambrosia Complex
Start with 300 g/hl
After 2 months: add 100 g/hl
After 3 months: add 100 g/hl
After 4 months: add 100 g/hl

Noblesse
Start with 20 g/hl
After 2 months: add 10 g/hl
After 3 months: add 10 g/hl
After 4 months: add 10 g/hl

12°C
Stir 2 times a month

Every month, check if you need a 1 g/hl Reduless addition
Working in new barrel

12°C
Stir 1 times a month

Noblesse
Start with 10 g/hl
After 2 months: add 10 g/hl
After 4 months: add 10 g/hl
After 6 months: add 10 g/hl

Every month, check if you need a 1 g/hl Reduless addition
Working in 1 year old barrel

12°C
Stir 1 times a month

Every month, check if you need a 1 g/hl Reduless addition

Noblesse
Start with 20 g/hl
After 2 months: add 10 g/hl
After 4 months: add 10 g/hl
After 6 months: add 10 g/hl

Move the zig-zags every 15 days

Color | Drop of juice | Acidity
0 | 1 | 2 | 3

Color | Drop of juice | Acidity
0 | 1 | 2 | 3
Filling the 1 year old barrels
15 days after filling the barrels
30 days after filling the barrels
45 days after filling the barrels
Working in 2 years old barrel

Start with 20 g/hl Noblesse
After 2 months: add 10 g/hl
After 4 months: add 10 g/hl
After 6 months: add 10 g/hl

12°C
Stir 1 times a month

Every month, check if you need a 1 g/hl Reduless addition

Move the zig-zags every 15 days

Color Drop of juice Acidity

0 1 2
Color Drop of juice Acidity
Filling the 2 years old barrels
15 days after filling the barrels
30 days after filling the barrels
Other aging actions

- One month after filling the vessels (barrels or tanks), analyse living Brett & Co. Check again after 3 months.

- Every month check that pH is <3.4, molecular SO₂ between 0.6 and 0.8 mg/L.
Normally, everything goes well until May-June. So prepare and do your spring racking.
In the buffer tank:
1. Check pH and molecular SO2. Correct if necessary
2. Adjust Reduless (1 g/L)
3. Wait 2-4 days
4. Clean the aging vessels
5. Rack and fill back the aging vessels

Eliminate the zig-zags in aged barrels
Add 100 g/L new staves
In the buffer tank:
1. Check pH and molecular SO2. Correct if necessary
2. Adjust Reduless (1 g/hl)
3. Wait 2–4 days
4. Clean the aging vessels
5. Rack and make the general blend
6. Fill the aging vessels

Eliminate the zig-zags in aged barrels
Add 100 g/hl new staves
For the next 6 months

- Keep temperature at 12°C, pH <3.4, molecular conforming
- Stir the barrels every 2 months, tanks and botti every month
- Add 0.5 g/hl Reduless and 5 g/hl Noblesse every 2 months
- In tank and botti, add 50 g/hl staves every 2 months
Prepare bottling

- Take wine from aging vessels, checking every unit
- Blend conforming lots in a tank: normally all of them!
- Add 0.5 g/hl Reduless, 10 g/hl Noblesse, 50 g/hl staves; 12°C. Stir once a month. Until cold stabilization, filtration and bottling
Thank you for your attention