

DELTEIL INTERNATIONAL WINE CONSULTING

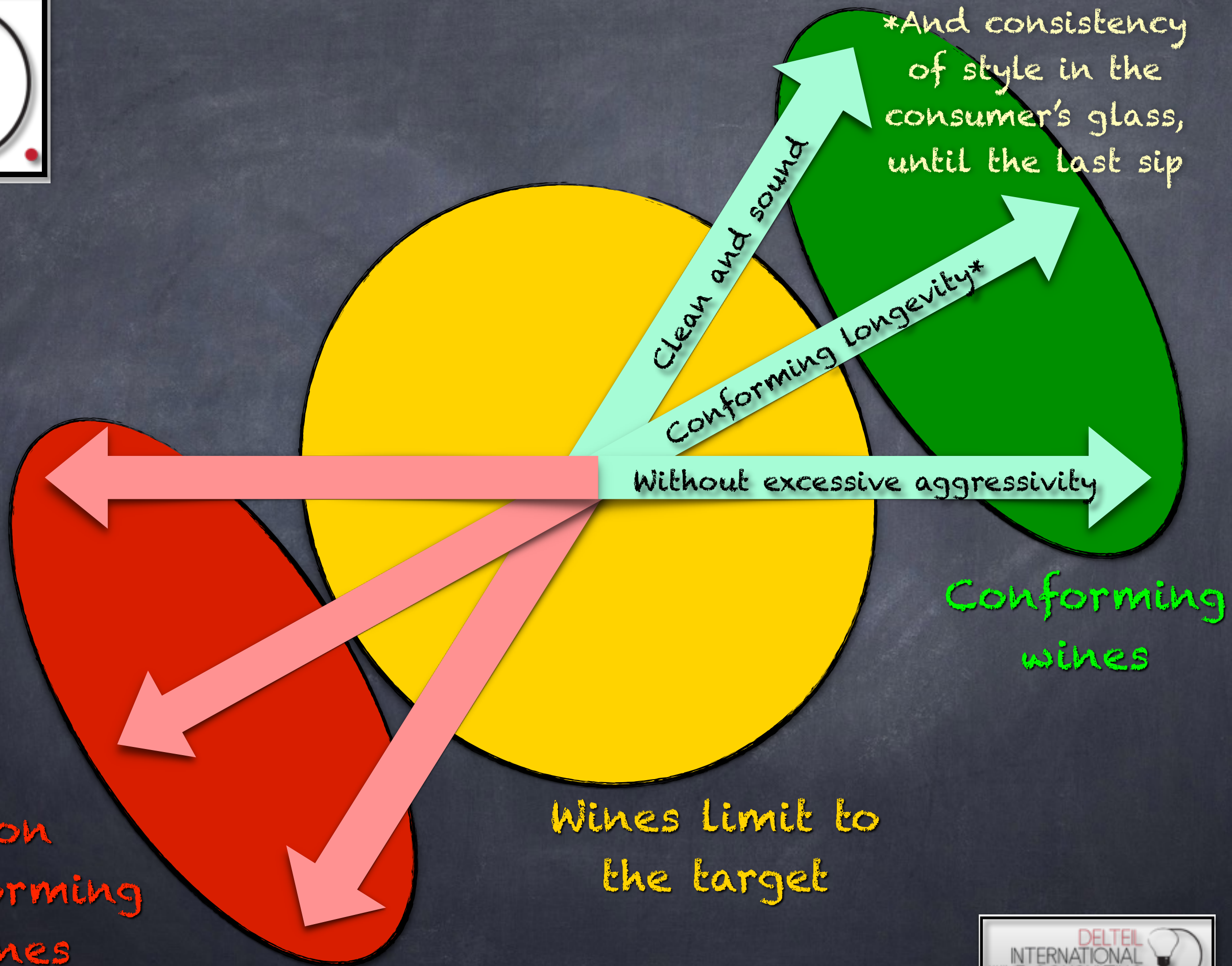


Aging with different types of oaks: adaptations according to berry profiles and winemaking



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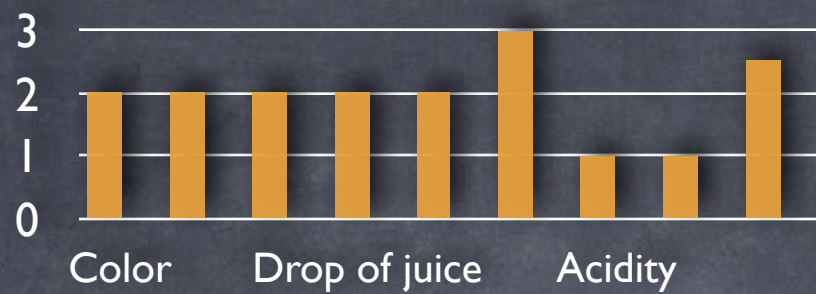




How to adapt the aging?

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

Oak
fragments

Oak
fragments

Blocks Fr-Ambrosia
Complex 300 g/hl

Yeast strain

Yeast strain

Yeast
protection

Yeast
protection

Inactivated yeast for
maceration

Inactivated yeast for
maceration

Coinoculate yeast - bacteria

Coinoculate yeast - bacteria

Lactic bacteria strain

Lactic bacteria strain



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)

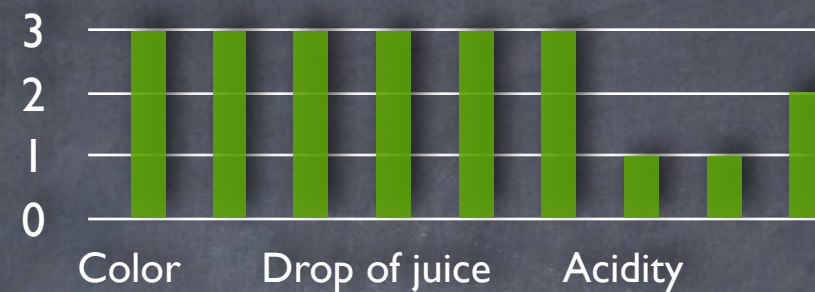
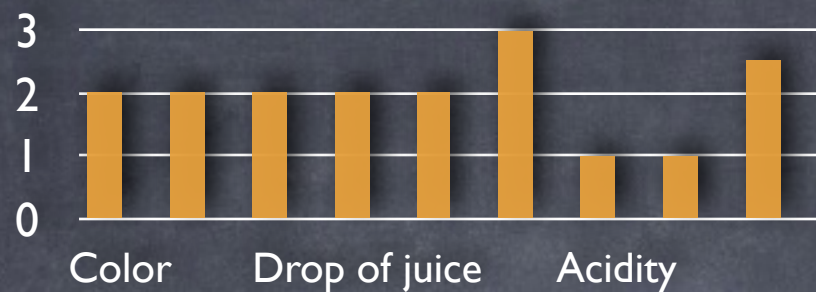
- When you early saturate the fermenting juice with oak elements, the wine, later, has a far smoother behavior during aging with oak (barrels, staves, etc.)
- Good blocks during maceration is also an investment to preserve and use your expensive barrels longer



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

1. Draining: add 1 g/hl Reduless
Rack after 24 hours

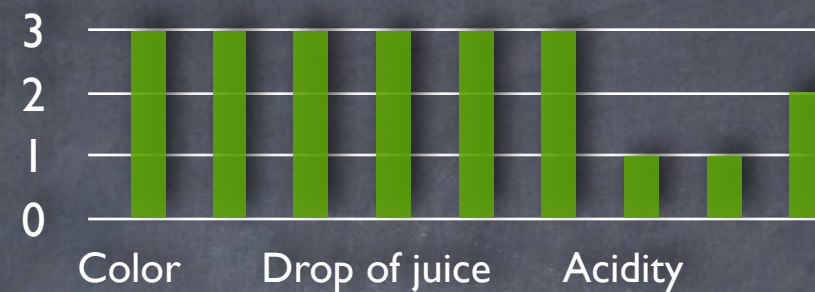
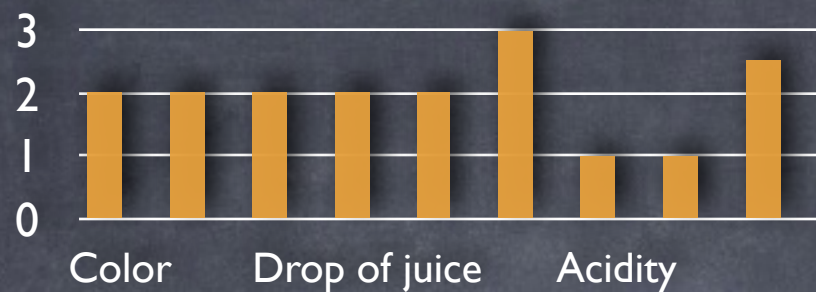
2. Dryness: add 1 g/hl Reduless
Rack after 24 hours

3. One week later: add 1 g/hl Reduless
~~Rack after 24 hours~~
Add staves 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

Aging actions around malolactic

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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

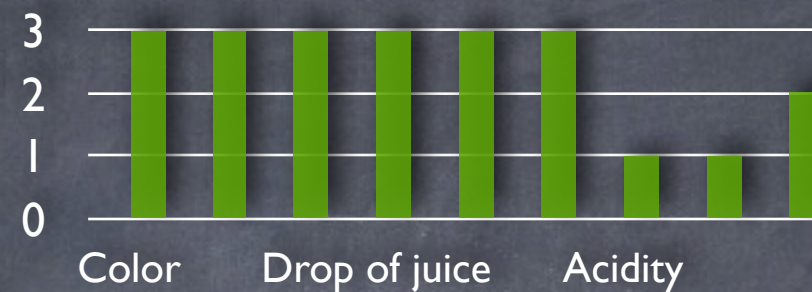
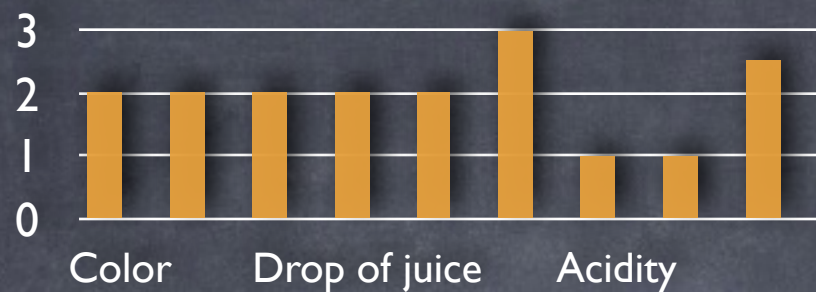


Advantages of malolactic with staves, even for top quality Pinot Noir (2)

- 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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Rack after 24 hours.
Clean the staves with
water. They follow
the wine.

Fill the barrel while
stirring



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

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 SO_2 . 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?



50% of the
lot



New
Ambrosia
French oak,
Complex



50% of the
lot

1 year
1 zig-zag
every 3
barrels



33%



New

33%



1 year
1 Ambrosia zig-zag
every 3 barrels

33%



2 years
1 Ambrosia zig-zag
every 2 barrels



33%

33%

33%



New



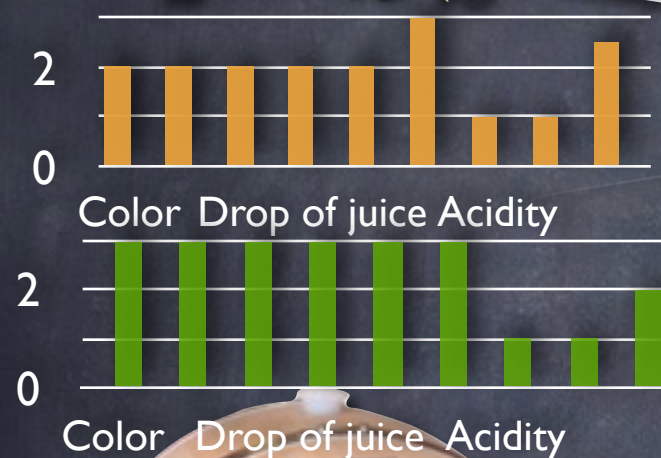
1 year
1 Ambrosia zig-zag
every 3 barrels



500 g/hL Staves
Ambrosia Complex

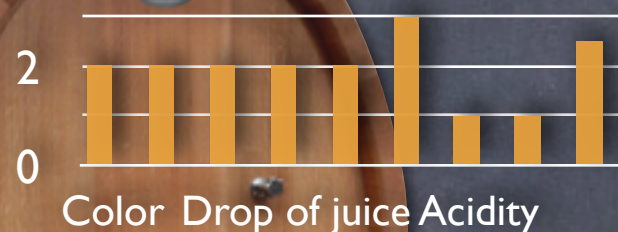


20-25%



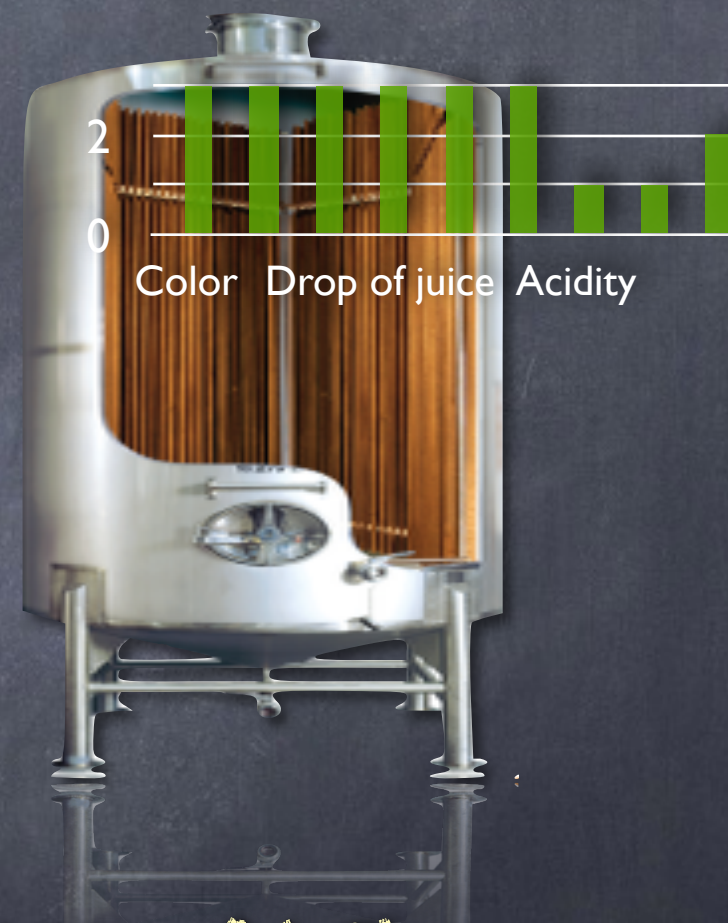
New
20-25% of the
lot

20-25%



500 g/hl Staves
Ambrosia Complex 30%
of the lot

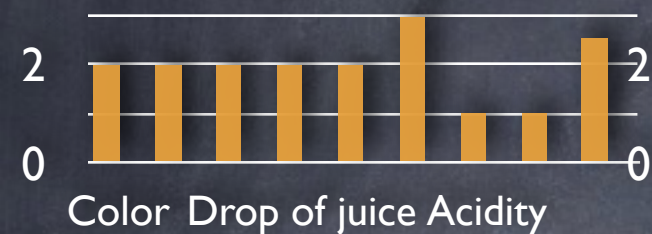
50-60%



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



25%



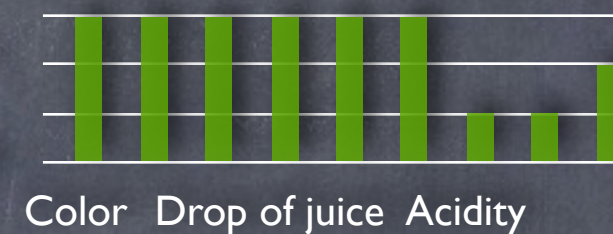
20%



75%



80%



New
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 you 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



12°C
Stir 2
times a
month

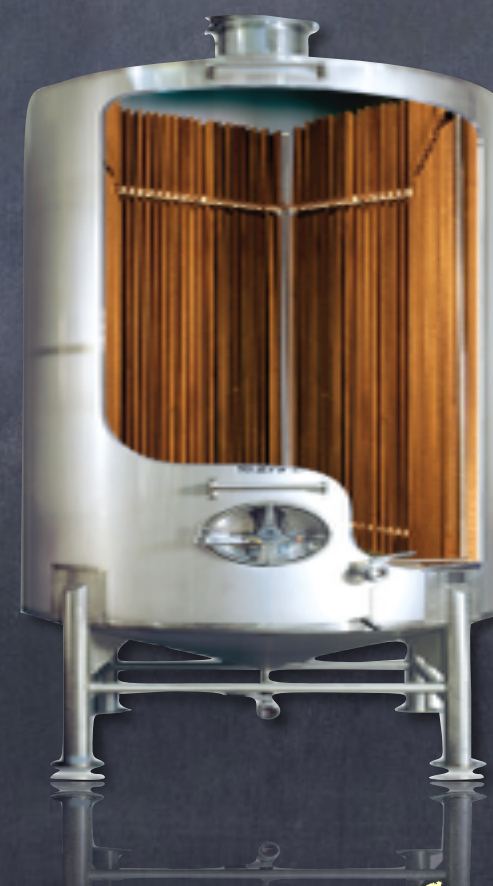
French oak, Ambrosia Complex

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

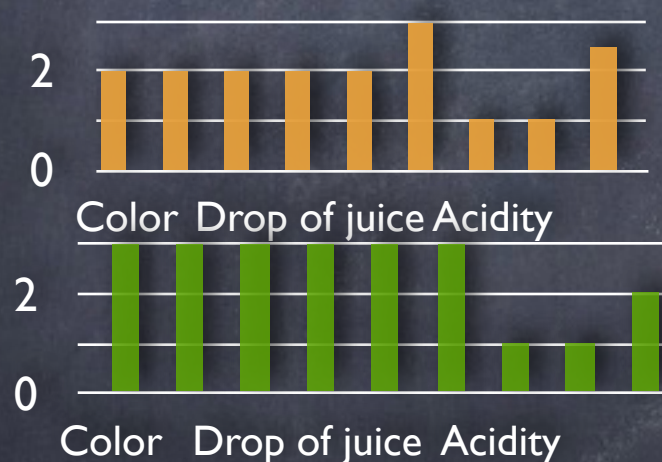
After 4 months:

add 10 g/hl

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



Working in new barrel



12°C
Stir 1
times a
month



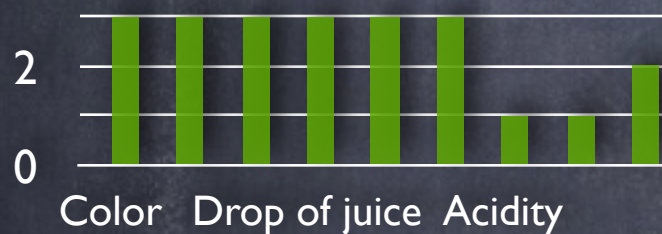
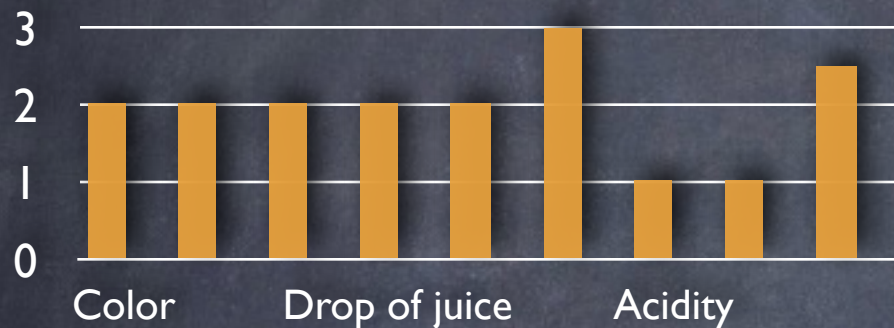
Noblesse
Start with 10 g/hl
After 2 months:
add 10 g/hl
After 4 months:
add 10 g/hl
After 6 months:
add 10 g/hl

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



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

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





Filling the 1 year old barrels





15 days after filling the barrels





30 days after filling the barrels



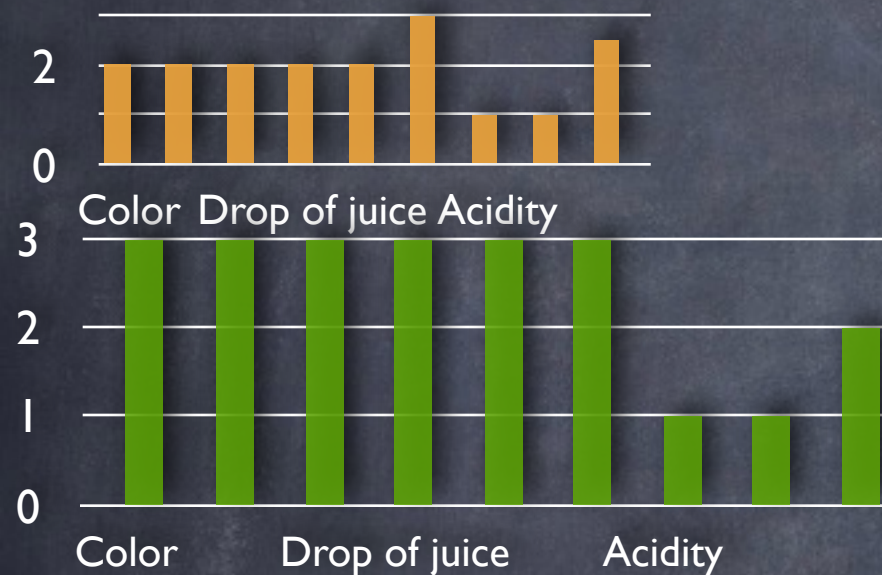


45 days after filling the barrels





Working in 2 years old barrel



12°C
Stir 1
times a
month



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

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

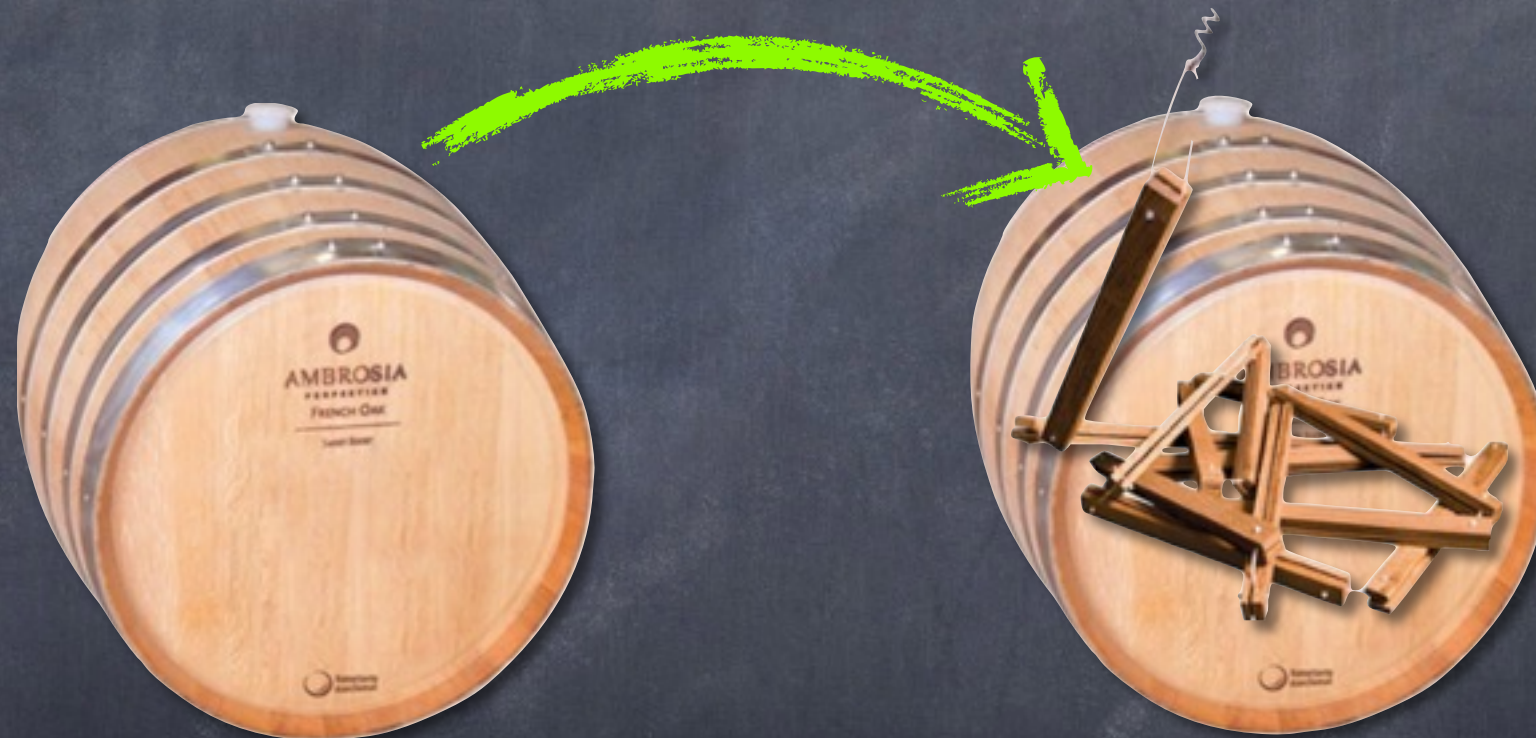


Filling the 2 years old barrels





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 & C°. Check again after 3 months
- Every month check that pH is < 3.4 , molecular SO_2 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/hl)
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/hl new staves





- In the buffer tank:
1. Check pH and molecular SO₂. Correct if necessary
 2. Adjust Redules (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 Redules 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

