

## ENARTIS NEWS

### WINE MATURATION: SMALL CHANGES NOW CAN PROVIDE BIG RESULTS LATER

Once fermentations are finished, it's time to evaluate wine quality and decide the destination of each wine: early release or long-term ageing, fresh and fruity or oak-aged. This is also the time various faults can become evident. During this phase, it is possible to adopt easy, time-saving and quality solutions that put wine on the right track.

Let's consider 4 common situations:

- Fresh and easy-to-drink
- Destined for long-term ageing
- Oak-aged for early release
- Wine with faults

	FRESH, EASY-TO-DRINK	LONG-TERM AGEING	OAK-AGED FOR EARLY RELEASE	WINE WITH FAULTS
MAIN CHALLENGE	<ul style="list-style-type: none"> <li>• Preserve freshness and maintain consistent quality from the first to final bottling.</li> <li>• Avoid unwanted MLF.</li> </ul>	<ul style="list-style-type: none"> <li>• Protect wine long-term without exceeding the legal limit of SO<sub>2</sub>.</li> <li>• Prevent microbial spoilage.</li> <li>• Optimize the use of barrels.</li> </ul>	<ul style="list-style-type: none"> <li>• Accelerate wine maturation.</li> </ul>	<ul style="list-style-type: none"> <li>• Treat the issue without negatively affecting wine quality.</li> </ul>
SOLUTIONS	<ul style="list-style-type: none"> <li>• Use tannins, fine lees or fine lees alternatives as antioxidants and maintain low redox potential.</li> <li>• Control wine microorganisms with chitosan.</li> </ul>	<ul style="list-style-type: none"> <li>• Use tannins, fine lees or fine lees alternatives as antioxidants.</li> <li>• Control wine microorganisms with chitosan.</li> <li>• Use oak tannins to prolong the life span of used barrels.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase wine complexity and roundness with fine lees or fine lees alternatives.</li> <li>• Provide oak aromas with chips.</li> <li>• Increase wine structure with toasted oak tannins.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt a non-aggressive solution such as adding yeast polysaccharides and tannins.</li> </ul>

### FRESH, EASY-TO-DRINK WINE

With this kind of wine, the biggest challenge is to guarantee fresh, young characters from the first bottling to the last, given that this can take place over the span of a year after harvest. The main technical objectives of the maturation phase are:

**Slow ageing of aroma and color.** This means protecting wine from oxidation. In addition to inert gasses and SO<sub>2</sub>, there are other effective, healthier and reasonable solutions:

- **Fine lees**, either from fermentation or added as inactivated yeast, can consume dissolved oxygen and maintain a low redox potential.
- **Tannins** can be used as antioxidant alternatives to SO<sub>2</sub>. Gallic tannins and some untoasted oak

tannins are very effective without impacting sensory qualities.

**Prevent microbial contamination.** Unwanted malolactic fermentation onset or the growth of spoilage microorganisms can lead to a loss of freshness or the production of off-flavors that can mask fruit characters. SO<sub>2</sub> additions, low temperatures, filtration and sanitation of tanks and equipment help minimize the risk of contamination.

- **Chitosan** is a new tool that can be used to control a wide spectrum of microorganisms. It is vegan, allergen-free and can be used to partially or completely replace SO<sub>2</sub>.

## Enartis Solutions for Preventing Oxidation and Microbial Contamination

OBJECTIVES	ENARTIS SOLUTION	COMPOSITION	EFFECTS
SLOW AGEING OF AROMA AND COLOR	Surli Natural	Inactivated yeast	<ul style="list-style-type: none"> <li>• Antioxidant protection</li> <li>• Mouthfeel &amp; softness</li> <li>• Aroma complexity</li> </ul>
	EnartisTan Blanc	Gallic tannin	<ul style="list-style-type: none"> <li>• Anti-ageing</li> </ul>
	EnartisTan SLI	Ellagic tannin extracted from untoasted American oak	<ul style="list-style-type: none"> <li>• Antioxidant protection</li> <li>• H<sub>2</sub>S prevention and correction</li> </ul>
PREVENT MICROBIAL CONTAMINATION	EnartisStab Micro M	Activated chitosan and yeast hulls rich in chitin-glucans	<ul style="list-style-type: none"> <li>• Antimicrobial</li> <li>• Antioxidant protection (adsorption of copper &amp; iron)</li> <li>• Removal of volatile phenols</li> </ul>

## WINE DESTINED FOR LONG-TERM AGEING

The main goal of long-term ageing is to obtain complexity from the development of *terroir* aromas and integration of flavors. These are the critical points:

- **SO<sub>2</sub> management.** It is necessary to protect wine without increasing total SO<sub>2</sub> near the legal limit. Storage on fine lees, the use of tannins with antioxidant effects and the antimicrobial effect of chitosan help to reduce the addition of SO<sub>2</sub>.
- **Preventing spoilage microorganism contamination,** particularly *Brettanomyces*, is another goal that can be tough to manage,

especially with barrel ageing. Before transferring wine to barrels or when cellar temperatures increase in the Spring, adding a small amount of chitosan is a good practice.

- **Ageing in used barrels.** After ageing two or three wines, oak's capability of releasing tannins and oak characters is much lower and not enough to guarantee the same effect on structure and aromatic complexity. The use of oak tannins can compensate for the lack of oak components.

## Enartis Oak Tannins that can Prolong Barrel Life

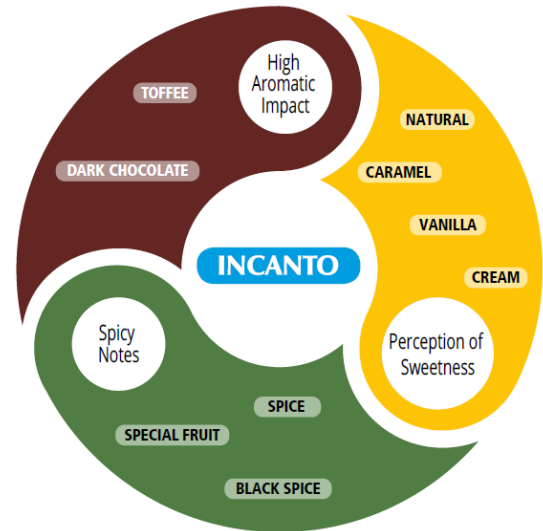
	ANTIOXIDANT EFFECT	INCREASE AROMATIC CLEANLINESS	STRUCTURE	ASTRIGENCY	SOFTNESS	AROMA INTENSITY	AROMA DESCRIPTION
COEUR DE CHÊNE	♦♦	♦♦	♦♦	♦♦	♦♦♦	♦♦♦♦	Vanilla, caramel, spices
DARK CHOCOLATE	♦♦♦	♦♦	♦♦♦	♦	♦♦♦♦	♦♦♦♦♦	Cocoa, toasted hazelnut, vanilla
ELEVAGE	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦	♦♦♦	Caramel, licorice, vanilla
EXTRA	♦	♦♦	♦♦	♦	♦♦♦♦	♦♦♦♦♦	Vanilla, caramel, cocoa, coffee
NAPA	♦♦♦	♦♦	♦♦♦	♦	♦♦♦♦	♦♦♦♦♦	Coconut, caramel, coffee, cocoa
RICH	♦♦	♦♦♦	♦♦	♦♦	♦	♦♦	Toasted oak, coffee, spices
SLI	♦♦♦♦♦	♦♦♦♦	♦♦	♦	♦♦♦♦	♦♦♦♦	Oak, coconut, vanilla
SUPEROAK	♦♦♦	♦♦♦	♦♦	♦	♦♦	♦♦	Vanilla, caramel, hay
TOFFEE	♦♦♦	♦♦♦	♦♦♦♦	♦♦	♦♦♦	♦♦♦♦	Coffee, caramel, toasted oak, vanilla
VANILLA	♦♦♦	♦♦♦	♦♦♦♦	♦♦	♦♦♦	♦♦♦♦	Vanilla, coconut, cream

1: low impact, 5: high impact

## OAK-AGED STYLE FOR EARLY RELEASE

When the objective is to get a complex, oaky aroma with a soft, full body in a short amount of time:

- the addition of inactivated yeast gives the effect of sur lies ageing in just a few weeks—more aromatic complexity, roundness and volume on the palate;
- oak chips can easily modify the oak profile;
- toasted oak tannins complete the effect of chips increasing wine structure and accelerating maturation.



Enartis Incanto Oak Alternatives

## WINE WITH FAULTS

The beginning of maturation is the time to correct wine imperfections. The principle is always the same: the sooner the better. In a young wine, at the beginning of its maturation period, it is possible to try "mild/gentle" corrective treatments and observe their impact over time. If they are not effective, there

is enough time to repeat the treatment or try a different strategy. The addition of tannins and polysaccharides is beneficial to correct or minimize defects such as herbaceous aromas, lack of structure, excess astringency, burning sensation, reduction, etc.

### Treat Imperfections

Reduce bitterness	Surli One
Reduce acidity	Surli Round, Surli One, EnartisTan Uva
Increase structure	EnartisTan Uva, EnartisTan Elevage, EnartisTan Fruitan
Reduce astringency	Surli Elevage, Surli One, Surli Round
Reduce alcohol burn sensation	Surli Elevage
Minimize reductive notes	EnartisTan Elevage, EnartisTan SLI, EnartisTan Max Nature, EnartisTan Coeur de Chene, Surli One
Reduce herbaceous notes	Surli Round, EnartisTan Max Nature, EnartisTan Fruitan, EnartisTan Elegance, Surli Elevage

For more information, please call us at (707) 836-2451 or contact your technical sales representative.

Stay in touch through our newsletter

**SUBSCRIBE**

[www.enartis.com/en-us/newsletter/](http://www.enartis.com/en-us/newsletter/)