



BALANCING WINE MOUTHFEEL WITH TANNINS AND POLYSACCHARIDES

For years, traditional tools such as fining agents, acidifying or deacidifying agents have been used to modify wine for technical and organoleptic advantages. These can have a negative impact on quality, a decrease in structure, volume, colour and aroma. In this newsletter, we focus on the use of tannins and polysaccharides as an alternative to improve balance, while respecting the wine.

WHAT IS AN APPEALING WINE?

If the wine is produced for its appeal to the consumer we must ask what appeals to the consumer?

The absence of defects is a universal request. A wine which is oxidized, reduced, herbaceous, bitter, astringent or wines with burning sensation is not acceptable. The wine must also be visually appealing and if the color is not vibrant, shining and crystal clear the consumer may not want it. The expected quality can vary as a function of food habits, as well as local customs relating to the consumption of wine. A definition of quality can be found which will be satisfactory for the expert as well as for the occasional consumer: a wine which is fruity, soft and balanced, is universally appreciated.



WHAT CAN WE DO TO PRODUCE A FRUITY, SOFT AND BALANCED WINE?

Obviously, the most fundamental concern is obtaining good quality mature grapes. **If, however, nature has not assisted us and we must make up for certain imperfections, what can we do?**

Normally in these situations the enologist resorts to the use of fining agents and correctors of acidity. Obviously these practices are effective, but they nearly always involve a loss of quality. In some situations, however, it is possible to use alternative tools which do not affect the quality of the wine: tannins and polysaccharides.

Use of traditional tools to fix wine imperfections

IMPERFECTION	TOOLS	UNWANTED SIDE EFFECTS
BITTERNESS	ISINGLASS	Loss of aroma intensity
	PVPP	Loss of volume/structure
	CASEINE	Loss of aroma intensity Loss of colour
ASTRINGENCY	GELATINE	Loss of aroma intensity
	EGG ALBUMINE	Loss of aroma intensity
LACKS ACIDITY	TARTARIC ACID	Tartrate instability Taste imperfections
EXCESS ACIDITY	POTASSIUM BICARBONATE	Bad after taste with high dosage
HERBACEOUS	ISINGLASS	Loss of aroma intensity
	FISH GELATINE	Loss of aroma intensity Loss of structure
REDUCTION	COPPERSULFATE	Loss of aroma intensity
OXIDATION	PVPP	Loss of volume/structure
	CASEINE	Loss of aroma intensity Loss of colour
	BENTONITE	Loss of aroma intensity Loss of structure/volume Loss of colour
	ISINGLASS	Loss of aroma intensity



TABLE 1: TANNIN AND POLYSACCHARIDE SENSORY IMPACT

	SWEETNESS / VOLUME	ACIDITY / FRESHNESS	STRUCTURE
OAK TANNINS	☞☞☞	☞	☞☞
POLYSACCHARIDES	☞☞☞	-	☞
GRAPE TANNINS	-	☞☞	☞☞☞

ENARTIS TANNINS AND POLYSACCHARIDES

ENARTIS TANNINS

Grape tannins:

Enartis grape tannins come from white grape skins and seeds. They are condensed tannins used to balance mid-palate, build-up structure, improve wine length and enhance aromas and fruit notes.

GRAPE BASED TANNINS

	AROMA CLEANLINESS	STRUCTURE	ASTRINGENCY	SOFTNESS	AROMA INTENSITY	AROMA CONTRIBUTION
TAN FRUITAN	☞☞☞	☞☞☞	☞☞☞	☞☞☞	☞☞☞	Red fruit, spices
TAN ELEGANCE	☞☞☞	☞☞	☞	☞☞☞☞☞	☞☞☞	White fruit, flower
TAN SKIN	☞☞	☞☞	☞☞	☞☞	☞☞☞☞	Grape, stone fruit, tea, tobacco
TAN UVA	☞☞	☞☞☞	☞☞☞☞	☞☞	☞☞☞☞☞☞	White fruit
TAN UVASPEED	☞	☞☞	☞	☞☞☞☞☞☞	☞☞☞☞☞	Grape, honeydew, white flowers
TAN FRESH FRUIT	☞☞	☞☞	☞	☞☞☞☞☞	☞☞☞☞☞	Lemon, citrus, mint, fresh fruit
TAN TOTAL FRUITY	☞☞	☞☞	☞	☞☞☞☞☞	☞☞☞☞☞	Strawberry, plum, cherry, berries



Oak tannins:

Enartis oak tannins are produced from the same oak wood used for oak barrels. After seasoning and toasting, tannins are extracted, concentrated and spray-dried to maintain the aromatic and sensory properties of oak.

OAK BASED TANNINS

	AROMA CLEANLINESS	STRUCTURE	ASTRINGENCY	SOFTNESS	AROMA INTENSITY	AROMA
TAN SLI	🍷🍷🍷🍷	🍷🍷	🍷	🍷🍷🍷🍷	🍷🍷🍷🍷	Oak, coconut, vanilla
TAN MAX NATURE	🍷🍷🍷🍷	🍷	🍷	🍷🍷🍷🍷🍷	🍷	Chamomile
TAN EXTRA	🍷🍷	🍷🍷	🍷	🍷🍷🍷🍷	🍷🍷🍷🍷🍷	Vanilla, caramel, cocoa, coffee
TAN SUPEROAK	🍷🍷🍷	🍷🍷	🍷	🍷🍷	🍷🍷	Vanilla, caramel, tobacco
TAN ELEVAGE	🍷🍷🍷	🍷🍷🍷	🍷🍷🍷	🍷🍷	🍷🍷🍷	Toasted oak, caramel
TAN NAPA	🍷🍷	🍷🍷🍷	🍷	🍷🍷🍷🍷	🍷🍷🍷🍷🍷	Coconut, vanilla, cocoa
TAN CŒUR DE CHENE	🍷🍷	🍷🍷	🍷🍷	🍷🍷🍷	🍷🍷🍷🍷	Vanilla, caramel, spices, medium toasted oak
TAN VANILLA	🍷🍷	🍷🍷	🍷🍷	🍷🍷🍷	🍷🍷🍷🍷🍷	Vanilla, butterscotch, coconut, almond
TAN TOFFEE	🍷🍷	🍷🍷	🍷🍷	🍷🍷🍷	🍷🍷🍷🍷	Toffee, vanilla, caramel, hazelnut
TAN DARK CHOCOLATE	🍷🍷	🍷🍷🍷	🍷	🍷🍷🍷	🍷🍷🍷🍷🍷	Cocoa, toasted almond, hazelnut

UNICO RANGE

	AROMA CLEANLINESS	STRUCTURE	ASTRINGENCY	SOFTNESS	AROMA INTENSITY	AROMA CONTRIBUTION
UNICO #1	🍷	🍷🍷🍷🍷	🍷	🍷🍷🍷	🍷🍷🍷🍷🍷🍷	Vanilla, caramel, spices, medium toasted oak
UNICO #2	🍷	🍷🍷🍷🍷	🍷	🍷🍷🍷	🍷🍷🍷🍷🍷🍷	Red berries, plums, cherry
UNICO #3	🍷	🍷🍷	🍷	🍷🍷🍷	🍷🍷🍷🍷🍷🍷	Lemon, mint, herbal



ENARTIS POLYSACCHARIDES

Yeast mannoproteins:

The Enartis Surli range supplies yeast mannoproteins and natural antioxidants to increase the volume and roundness of the wine. Surli range products are used to balance wine mouthfeel, elongate the wine shelf life, improve stability and better sensory qualities.

Arabic Gum:

Depending the origin and hydrolysis level of the Arabic gum, the organoleptic impact on wine will vary. Arabic gum is used to improve the volume, viscosity and weight of the wine, balance astringency and increase aromatic persistence.

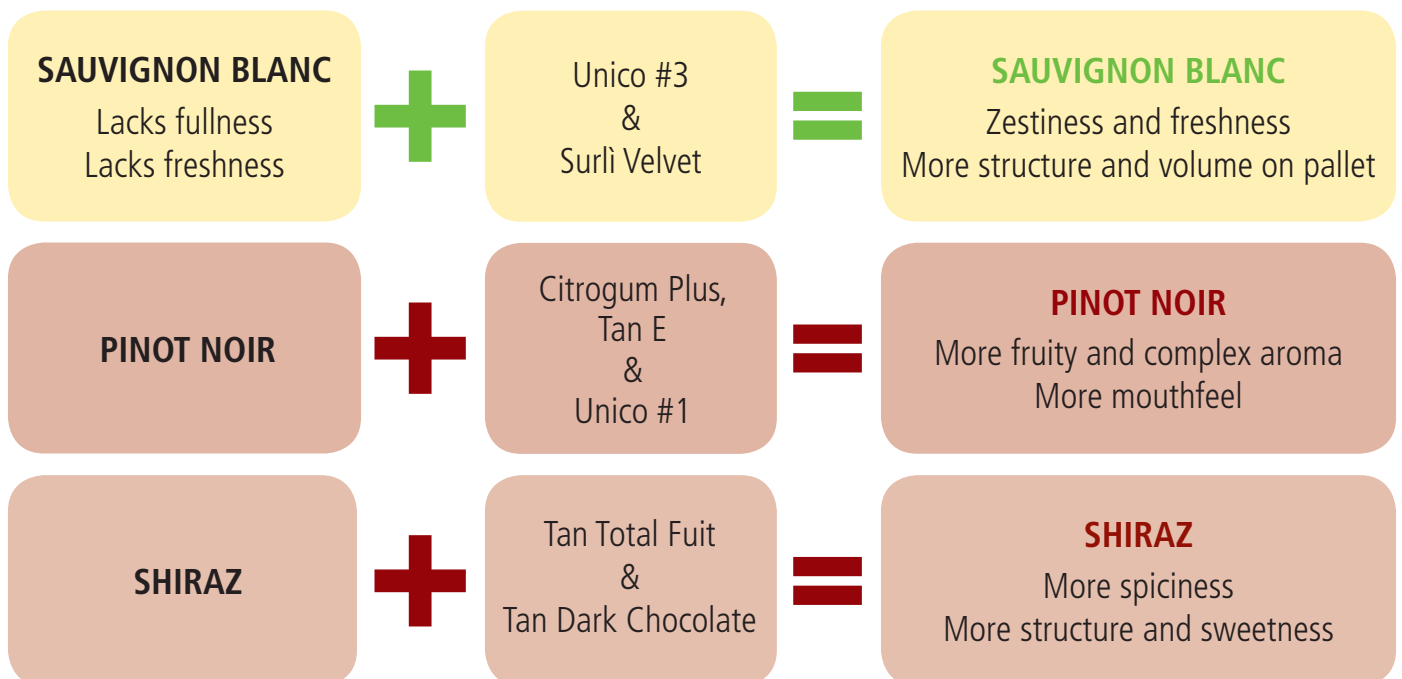
YEAST POLYSACCHARIDES AND GUMS

	AROMA CLEANLINESS	STRUCTURE	ASTRINGENCY	VOLUME / MOUTHFEEL
SURLÌ ONE	1 glass icon	1 glass icon	3 glasses icon	3 glasses icon
SURLÌ ROUND	2 glasses icon	2 glasses icon	3 glasses icon	4 glasses icon
SURLÌ ELEVAGE	2 glasses icon	1 glass icon	4 glasses icon	4 glasses icon
SURLÌ VELVET	2 glasses icon	1 glass icon	4 glasses icon	4 glasses icon
SURLÌ VELVET PLUS	2 glasses icon	1 glass icon	4 glasses icon	4 glasses icon
SURLÌ VITIS	2 glasses icon	2 glasses icon	3 glasses icon	3 glasses icon
CITROGUM	2 glasses icon	1 glass icon	4 glasses icon	4 glasses icon
AROMAGUM	3 glasses icon	1 glass icon	4 glasses icon	3 glasses icon
MAXIGUM	1 glass icon	2 glasses icon	4 glasses icon	3 glasses icon
CITROGUM PLUS	2 glasses icon	2 glasses icon	4 glasses icon	4 glasses icon



THE POSSIBILITIES ARE ENDLESS WITH TANNINS AND POLYSACCHARIDES

Below are but a few examples of how tannins and polysaccharides have had a dramatic effect on wines with faults or wines lacking the edge to put them in a higher price bracket.





HOW DO TANNINS AND POLYSACCHARIDES IMPACT MOUTHFEEL

TABLE 2: VOLUME AND SWEETNESS

VOLUME	PRODUCTS	EFFECT ON PERCEPTION
+	Surli Velvet, Citrogum, Citrogum Plus	<ul style="list-style-type: none"> • Increases softness and volume. • Elongates palate. • Balance burning sensation of alcohol. • Attenuates sensation of acidity and bitterness.
+	Tan Extra, Tan Cœur De Chêne, Tan Napa, Tan Uvaspeed, Tan Elegance, Tan Max Nature	<ul style="list-style-type: none"> • Increase sweet perception and volume. • Balance burning sensation of alcohol.
-	Tan Skin, Tan Fruitan, Tan Uva	<ul style="list-style-type: none"> • Improves aromatic freshness. • Increased phenolic elements to counteract sweetness and volume.

TABLE 3: ACID PERCEPTION

ACIDITY	PRODUCTS	EFFECT ON PERCEPTION
-	Surli Velvet, Citrogum, Citrogum Plus	<ul style="list-style-type: none"> • Increases softness and volume. • Attenuates sensation of acidity and bitterness.
+	Unico #2, Unico #3, Tan Total Fruity, Tan Fresh Fruit	<ul style="list-style-type: none"> • Improves aromatic freshness. • Enhances fruit aromas.



TABLE 4: TANNIN INTENSITY

TANNIN INTENSITY	PRODUCTS	EFFECT ON PERCEPTION
-	Surli Velvet, Citrogum, Citrogum Plus	<ul style="list-style-type: none">• Increases softness and volume.• Attenuates sensation of acidity and bitterness.
+	Tan Skin, Tan Napa, Tan Fruitan, Tan Uva	<ul style="list-style-type: none">• Increases tannin structure.• Rounds out and balance wines.

HOW TO CONDUCT PRELIMINARY TANNIN AND POLYSACCHARIDE TRIALS:

Bench trials are essential to determine proper dosing and efficiency of a treatment (addition of fining agents, tannins or polysaccharides).

To set up bench trials, follow these steps:

- Prepare a 1% (1 g in 100 mL) solution of the product to be tested. For tannins and polysaccharides, use neutral alcohol-water solution (~13%v/v). For liquid products, use solution as is
- Label each sample
- Include one untreated sample as a control
- Fill samples with wine up to 80% of final volume, leaving space for the addition
- Add the treatment solution: 0.1 mL of solution in 100 mL of wine correspond to the addition of 1 g of tannin or polysaccharide in 1 hL of wine
- Tasting can be done immediately after addition