

WINE Talk: October 2024

The newsletter of Living Wines: Edition 127

Welcome to newsletter 127 for October, the ninth WINE Talk Newsletter for 2024. We hope you continue to enjoy reading them. We certainly are continuing to enjoy writing them!

We have been able to put together **7** packs to offer in this newsletter, but some of these packs have only one or two available, so we expect them to sell out quickly.

The newsletter also has:

- A story about Renaud Bruyère and Adeline Houillon wines, Cadette wines from the Montanet family and Domaine Mosse wines that have recently arrived;
- Information about a new service we are using to send wines to Perth and Fremantle;
- Some information about wines which are arriving soon;
- 7 Packs containing some exciting wines, including some of the new arrivals;
- Part 6 of our faults in wine story and what causes them - for this month is an exploration of reduction and the effect it has on wines;
- A long story about phenolic ripeness in grapes and how to tell if they have reached it;
- Information about the Muscat d'Alexandrie grape variety.

For a full list of wines currently in stock and their prices see:

<https://livingwines.com.au/shop/>

There's an easy way to order our wines. Just send us an email listing the wines and/or packs you would like to order or even just a budget and your style and region preferences. We confirm a plan by return email before processing your order.

If you're not personally known to us or haven't already, please also provide your date of birth so we stay legal (a requirement of Tasmanian legislation). You must of course be over 18 years of age to order.

New Arrivals

Renaud Bruyère and Adeline Houillon

A preamble

Almost all of our recently -received wines from Pupillin vigneronns Renaud Bruyère and Adeline Houillon have now been shipped but, as has been the practice in recent years, we have kept a few bottles to offer as newsletter packs. There are two bottles in Pack 1 and one bottle in Pack 3 but the number of packs are very limited. For the moment they are reserved for customers who did not receive an allocation but if we don't sell them we will make them available to people who have already taken some wines.

A reminder: If you're a regular customer and you would like to be offered a bottle or two of Renaud and Adeline's wines from our next shipment the time to ask is when we indicate they are coming in a 'What's Coming' section of the newsletter. We'll probably only ever mention once that they are coming so it's worth checking that section of the newsletter each time. We don't know when they will offer us wine – it always adds a frisson of excitement into every day of our lives not knowing when we look at our emails each day whether there will be an email from them! – so we can't tell you when it is likely to be.

The story

This year's shipment has many more cuvées than usual but less of each one and they are spread across multiple vintages (from 2017 to 2020) including the dreadful (in terms of volume) 2017 and 2019 vintages, both of which were decimated by frost. It is also why many more cuvées than usual are blends.

The quantities should improve again briefly soon (once we get over the frost hump of 2021) because 2022 and 2023 were both quite generous vintages. We may start to see the reds from at least 2022 next year. Unfortunately, though, as you may have heard, 2024 has been another very difficult year with losses from April frosts and then a battle, over several months, with mildew. Renaud estimated 70% losses this year when we saw them in July. Please keep that in mind after your first gulp when you see the prices of the pack. With so many bad vintages the prices of Jura wines have inevitably increased as growers use the sales from the good vintages to help them survive. (We guess it doesn't help to be also faced with increases in demand but we're sure Renaud and Adeline's price increases are more to do with vintage uncertainty and a reduced acreage than wanting to take advantage of excess demand.)

We know that some of the wines we have shipped recently are starting to arrive in the wine shops we work with regularly so if you didn't ask for an allocation with us you may still be able to find some wines. For that reason we thought it might be a good time to include a little more information about Renaud and Adeline's vineyards in this issue of the newsletter.

Renaud and Adeline farm 4 hectares of vines within the Arbois appellation and its tiny sub-appellation Arbois-Pupillin, spread across four different plots. They live in Pupillin, a few kilometres from Arbois, in the Rue de Ploussard, a constant reminder that the people of Pupillin prefer the term 'Ploussard' in preference to 'Poulsard' for the iconic red grape variety for which it is famous.

This acreage is more than what they began with but less than what they had five years ago, including the period these wines come from. In 2019 and 2020 they gave up some of the land they were working with, having decided that 4 hectares is the right amount for them to work with comfortably and still make a living.

Almost half their vines are on a west-facing slope in Pupillin in the lieu dit en Aspis. They include young Ploussard, Trousseau, Chardonnay and Savagnin which they have planted, some Savagnin and Ploussard that are approaching 20 years of age, and much older (more than 65 years) Savagnin and Chardonnay. These vines produce all the wines they make with the AOC Arbois-Pupillin. The soil is extraordinarily complex, with multiple colours of marl (red, green and grey), and the lieu dit is renowned for its long-lived white wines that can take many years to reach their full potential.

They also have approximately a hectare in the lieu dit La Croix Rouge, which is within the AOC Arbois and planted entirely with Chardonnay that is approximately 25 years old. On flatter land, it runs along the west side of the N83 road, which, if you have visited this part of the Jura, is the main road between Arbois and Poligny. Facing north-west its clay soils result in grapes that make “easier drinking” white wines which can be enjoyed while young (although we drank a bottle of 2016 Croix Rouge recently and it was still singing so don’t worry if you have kept some – you won’t be disappointed).

Les Tourillons, also within the Arbois AOC, is just north of the town and has one of the loveliest aspects for viewing Arbois. It must be such a pleasure to work here and look up across the picturesque town, with its iconic church tower, toward the hills in the distance beyond which is Pupillin. The soils are limestone scree on lias marne, with the limestone very close to the surface. The vines, which are in their mid-50s are coplanted Chardonnay (mainly) and Savagnin, with a few (approximately 200) vines of Trousseau. The exposition is north-west. These are the lightest soils on the estate producing wines with salinity and minerality which are full of energy and tension. The Chardonnay and Savagnin are always harvested, pressed and vinified together, which means the Chardonnay is a little riper than the Savagnin.



Renaud in les Tourillons, with Arbois in the background

Les Nouvelles, also within the AOC Arbois is the final part of the puzzle. It is in the commune of Mesnay, which is east of Arbois. If you have visited Arbois you may have driven through it to visit the Cascade des Tufs or the Thursday afternoon market in the permaculture garden at Les

Planches-près-Arbois. Originally Renaud and Adeline had one hectare here but since 2019 they have reduced their holding to .5 of a hectare, comprising old vines of Ploussard and Melon à Queue Rouge (officially Chardonnay). On a steep south-facing slope, which is difficult to work, the soil is limestone and clay (more limestone scree at the top and clay at the bottom). When they had the larger acreage there was also Chardonnay and Savagnin.

Prior to 2021 they had a fifth plot in the commune of Montigny Les Arsures (also AOC Arbois) from the lieu dits Le Viaduc and Bacchus. We've received wines from Le Viaduc but never any named cuvées from Bacchus so we are not sure where the grapes from there were used. Le Viaduc is limestone scree on Lias marl and Bacchus is more clay from Lias. The vines are Savagnin and Ploussard (over 50 years old in Le Viaduc and 80 years old in Bacchus). The oldest Ploussard vines were removed and replanted in 2023 but at the moment all the Ploussard we have includes the old vines.

We mention all of the plots not just because it is interesting but because this year, as we mentioned, we have an almost bewildering selection of small quantities of many cuvées. They are from many places (En Aspis, Les Tourillons, Le Viaduc and Nouvelles) and we thought explaining the locations of the plots in an introduction may be more helpful than with descriptions of individual cuvées, which no-one will see all of.

Renaud and Adeline destem all their red grapes in the vineyard by hand, gently rubbing the grapes through a latticed destemming device called a crible. They are placed in sealed tanks where they undergo semi-carbonic maceration for about a month (it varies for different cuvées but they explain it on the back labels). They are pressed then aged in tank, usually for just shy of a year, then bottled in such a way that a small amount of CO₂ naturally produced by the fermentation is captured, which means the wines usually have a gentle prickle. They then keep them until they think they are ready, a length of time that varies from vintage to vintage. In this shipment we have red wines from 2019 and 2020.

The white grapes are directly pressed then (nearly always) aged in previously-used wooden barrels. (Only once that we are aware of, La Coix-Rouge was aged in tank not wood, a consequence of a vintage (2018) so bountiful they did not have enough barrels.) All the white wines we have this year were aged in barrel and they were all topped up.

Some of the wines we have recently released are from vintages characterised by terrible frosts, which resulted in tiny harvests. In particular, in 2017 the average yield was 6 hectolitres / hectare. It was what Renaud described as "a perfect vintage but no grapes".

Many of our retail customers already have an allocation of these wines from us but we also make a point each year of releasing some of them to the wonderful wine merchants we work with. We hope via them many more people who read this newsletter will also get a chance to acquire a bottle.

Four 2023 wines from Montanet Family (La Cadette, La Soeur Cadette, Montanet-Thoden)



We have also just released a small shipment of four wines from Valentin Montanet. The Montanet family's wines include La Cadette (made with grapes from their estate vines, Montanet-Thoden (also from their own estate vines but the ownership is slightly different, hence the different name) and La Soeur Cadette (usually (including in this case) négoce wines).

Domaine de la Cadette, which was begun by Valentin's parents Jean and Catherine, released its first estate wines in 2004. Originally a physics teacher Jean initially made his wine in the local co-op, which had been frequented by US wine importer Kermit Lynch. When Kermit Lynch arrived and Jean was no longer there he located the Montanets, tried the 2004 wines, and became their first substantial customer (a very promising way to begin!). Soon after the wines found a market in Paris at places like Le Baratin and Yves Camdeborde's neobistros. According to Valentin, most of their future importers first tried their wines in these iconic Paris restaurants and the rest is history. That is our story too. We first drank a Domaine de la Cadette Melon de Bourgogne at Le Chateaubriand (we think in 2010) and that is what led us to approach them to import their wines.

Based in the north of Burgundy in the Yonne department but now also with the négoce cuvées, including Chardonnay from Mâcon and Gamay from the Beaujolais, these wines have always been our most affordable Burgundy cuvées and even with rising prices caused by increases in the price of the wines and significant increases in shipping costs they are still relatively affordable.

We also think there's a small step up in the quality of the white wines particularly this year with Valentin Montanet's decision not to filter them (the reds have never been filtered). The result is quite striking with the wines exhibiting much more energy. The filtering was always very gentle and light but even so it's easy to see now what it took away.

The early purchasers of these wines thought the same thing too as the white wines in the current shipment have now sold out except for those offered in Pack 4 of this newsletter and we

only have a few spare bottles of Bourgogne Rouge (but see also pack 5). There is still a good supply of Julié纳斯.

These wines are made in such a way that they are a pleasure to drink young. It is not wine infanticide to drink them now. The four wines we released are described briefly below. You may have to hunt in a bottleshop for the whites though or enjoy them in a restaurant.

La Cadette Vézelay La Châtelaine 2023 is an estate wine, aged predominantly in tank but 20% in old barrels. (There will be a second release of this cuvée later, of a proportion of which is being aged in foudre.) From the relatively new Chardonnay-only Vézelay appellation, for the first time it has been bottled without filtration. Certified organic. 13.5% ABV. **Only available in pack 4.**

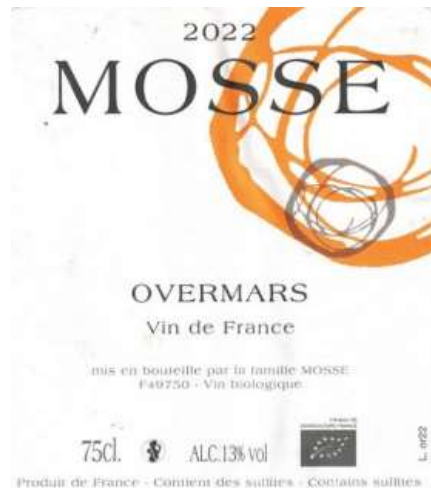
La Soeur Cadette Bourgogne Blanc 2023 is a négoce wine made with Chardonnay sourced from the same Mâcon grower as it has been for many years. It was aged in stainless steel tanks, as has been most typical for the Montanet family's white wines. 13% ABV. **Only available in pack 4.**

La Soeur Cadette Bourgogne Rouge 2023 is a négoce wine. It is made predominantly with Pinot Noir from a vineyard in the Côte Chalonnaise but also has a proportion from Vézelay and Volnay. The owner of the vineyard in the Côte Chalonnaise works organically, only spraying copper and sulphur to fight mildew. However, the vineyard is not certified organic. Whole clusters were macerated for two weeks and then after lightly pressing it was aged in barrels and a foudre. It was racked to tank after 8 months with no intervention before then. After one month in tank it was bottled. 12.5% ABV. **RRP \$64 (only a few bottles available). Also in Pack 5.**

La Soeur Cadette Julié纳斯 2023 is a négoce wine from the same Beaujolais grower Valentin has sourced for this cuvée from in the past. Whole clusters were macerated in stainless steel tanks for 10 days with no intervention. It was lightly pressed without excess extraction then racked into a foudre before the end of the fermentation. The result is a very juicy wine in spite of its 14.9% ABV. **RRP \$58. Also in Pack 5.**

There will be a new shipment of Cadette wines in the new year with other 2023 white cuvées and hopefully the second release of La Châtelaine. We'll provide more information about it later but if you missed out on any whites this time round please let us know if you would like us to give you early notice of the next arrival.

More Arrivals from Mosse – White, Macerated, Vermouth



We released some pink Mosse wines last month and this month have released most of the white and macerated wines which came in our most recent shipment. These are all estate wines.

We have summarized them below. Everything is still available except Aida but there is a bottle of Aida in Pack 6.

Mosse La Joute 2022

A blend of 80% Chenin Blanc and 20% Chardonnay. The Chardonnay was planted in 1987 and the Chenin Blanc in 2015. The soil is clay and quartz on schist. The grapes were directly pressed then spent 10 months in the barrels on its lees. It was raked and assembled for 1 month prior to bottling. 13% ABV. RRP \$67.

Mosse Anjou Blanc Les Bonnes Blanches 2022

100% Chenin Blanc. Bonnes Blanches, on the left bank of the River Layon, is perhaps the heart of the Mosse estate. The soil is silt on an outcrop of schist with small white pebbles, which are called 'Bonnes blanches'. The vines are approximately 45 years old. The grapes were directly pressed and aged in two foudres for 10 months prior to bottling. 12.5% ABV. RRP \$89

Mosse Arena 2022

100% Chenin Blanc. Planted by the Mosses these vines were 18 years old at the time of the vintage. Although not in the appellation this year the vines are in Savennières. The soil is Aeolian sand on schist. The wine was directly pressed and fermented in barrels. 12% ABV. This is almost sold out. RRP \$96.

Mosse Overmars 2022

100% Chenin Blanc. This is a macerated wine made from Chenin Blanc parcels planted by the Mosse family. It's a cuvée invented in 2018 when there was sufficient quantity for Sylvestre and Joseph, who had just taken over the winemaking from their father, to experiment. It's quite different from the way René made Chenin Blanc and it is now a regularly-made cuvée. This year the grapes were destemmed then macerated for one week with a daily punchdown. The aging was in stainless steel tank. 13% ABV. RRP \$69.

Mosse Aida 2022

We only received 12 bottles of this wine. It is made from the directly-pressed juice of young Savagnin vines planted by Joseph and Sylvestre several years ago on a north-facing parcel that is clay on schist. Aged in barrel (possibly only one). 12.5% ABV. It is now only available in pack 6.

Mosse Vermouth Rouge 2020 70cl

This is our second shipment of this red vermouth. It is made from a base of destemmed Côt (Malbec) from the 2020 vintage. After pressing, spirits which had been macerated with violets, star anise, cinchona bark and ginger were added to the juice, which stopped any continuing fermentation, retaining the natural sugars. It was aged for two years, one year in barrels and one year in tank. It is also almost sold out. 17.5%ABV. RRP \$84.

What's Coming Soonish

We've mentioned in previous newsletters that there will be some new **Vincent Carême** wines soon. The cuvées are two sparkling wines – 2023 Fizzy Pink and 2022 Vouvray Ancestral – and for the first time in a couple of years some of their single vineyard Chenin Blancs – Le Clos and Le Peu Morier, both from the 2022 vintage. Ask if you would like advance notice about these. We will be advertising them.

We will also be releasing some **Fanny Sabre** wines late in November or early December. There is a lot of aligoté (2023 vintage)! There is also Bourgogne Blanc and Bourgogne Rouge from the 2023 vintage and tiny quantities of several other wines from the 2022 and 2023 vintages. There are no premier cru wines in this shipment. Once again please ask if you would like advance notice for these. They will be advertised and some cuvées are very limited.

We will also have another new tiny shipment from Jura vigneron **Tony Bornard** from Domaine Bornard hot on the heels of one which arrived recently which we are still sending allocation offers out for. The current one is fully allocated (but not all offers have been sent yet so don't be concerned if you asked but haven't heard back from us). But if you would like an allocation from the next equally small shipment please let us know. We won't be advertising them. It might also be a good time to request a Vin Jaune as we have a little more than usual. The vintage is 2015.

Also from the Jura, we have just finalised a reservation for a new shipment from Étienne Thiebaud from **Domaine des Cavarodes**. This will also be sold by allocation only so please ask if you would like an offer. It won't be until early next year and we may not mention it is coming again. (In the same shipment there are a few bottles of Arnaud Greiner's wines. We will definitely not mention them again.)

We look forward to hearing from you if you would like to express interest in any of the forthcoming arrivals.

Perth and Fremantle new service freight news

We are pleased to tell you that Anonymous Wine Freight, which we use for shipping to most of eastern Australia, has just started a weekly shipping service to Perth from Melbourne. For the last 12 months, partly because we have had less wine but also because of the market, we have struggled to fill pallets to send to WA. We have been unable to respond quickly (well at least, relatively quickly) to Perth orders because we had to wait to fill a pallet.

This year we sent a pallet late in February, another one in May and were almost ready to send another one. Instead, with the news from Anonymous Wine Freight, we decided to send the orders we had accumulated and all orders into the future with them and to no longer ship directly.

Anonymous Wines does not collect from Tasmania so we still have to accumulate pallets before we can ship you an order but most months we send them at least two pallets and sometimes more. This means we should connect with at least two of their weekly services to Perth per month.

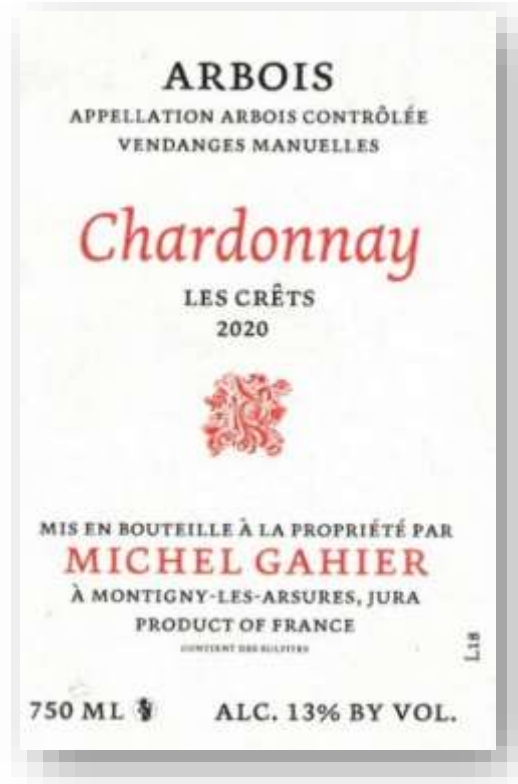
We are sorry but this service is more expensive and we are going to have to charge more per box for the freight. We are sharing with you the actual costs to us so you understand why we have had to increase our charges. It is going to cost us \$45 a case to ship from Melbourne to you and it usually costs us between \$10-12 a case to ship from Hobart to Melbourne. That varies a little depending on how full our pallet is. The end result is it will cost us around \$55 a case on average. Most of this cost is going to be the same whether there are 6 or 12 bottles.

We have always subsidised the freight and will continue to do so but even with the subsidy, we will still need to increase the price. In future we will charge \$28 per case for anything between 7 and 12 bottles), \$24 for 6 bottles and \$50 (almost the actual cost) for less than 6 bottles. We are very sorry – we realise that nothing that adds to increased prices in the current climate is helpful, especially as the price of most wines is increasing too. We hope, though, that the convenience of being able to order when you want will help and also hope you will understand that it is actually still good value given it is refrigerated shipping.

There will be one other small benefit too. Once the wine is unpacked in Melbourne each box is scanned. From that point it will be possible for us to accurately track the progress of your orders and, should you request it, provide you with a tracking link.

**Pack 1 – Bruyère-Houillon + Gahier Jura 3 Bottle Pack
(Approx 12% Discount)**

2 Packs Only



This 3 bottle pack is a rare opportunity to buy two bottles of Renaud and Adeline’s wines – a red and a white - and one bottle of Michel Gahier’s Chardonnay.

The red is the **Renaud Bruyère and Adeline Houillon Arbois Rouge Ploussard/Trousseau 2019**. It is 65% Ploussard and 35% Trousseau. It had semi-carbonic maceration for 27 days prior to pressing. The Ploussard in this blend is from Les Nouvelles (very old vines) and the Trousseau is from Les Tourillons, both of which were picked on the same day. The wine is quite concentrated with a real mineral streak, as a result of a hot vintage, and is definitely a wine which would reward cellaring. 13.83% ABV. The bottle is sealed with red wax.

The white is a **Renaud Bruyère and Adeline Houillon Arbois Blanc Chardonnay/Savagnin (Nouvelles - Viaduc) 2017**. It is 60% Chardonnay from the clay limestone soils of Les Nouvelles and 40% Savagnin from Viaduc (where one part is predominantly clay and one part is predominantly limestone). The two varieties were harvested at the same time and assembled during pressing. It is rich but balanced. It spent three years in barrel prior to bottling in 2020. 14.32% ABV. **PLEASE NOTE THIS BOTTLE IS MISSING ITS WAX TOP (WHICH WOULD HAVE BEEN BLUE). IT HAS NOT BEEN DAMAGED. IT JUST ISN'T THERE. IT SOMEHOW MISSED BEING WAXED BEFORE IT WAS PACKED. FOR THAT REASON IT IS DISCOUNTED BY 15% NOT OUR NORMAL 10% FOR BRUYERE-HOUILLOIN WINES IN A 6 PACK.**

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We had two extra bottles of **Michel Gahier Arbois Chardonnay Les Crêts 2020** from our shipment earlier this year available as a result of an allocation, picking or invoicing error we could not find an explanation for and have finally decided we will never discover why so have made them available to complete this pack of three bottles. From the Les Crêts vineyard, which is predominantly red marl, which Michel says explains the intense aroma, it was aged in foudre for two years and topped up.

These two packs are intended for people who did not request an allocation of Renaud and Adeline's wines. In the unlikely event they don't sell within a couple of days of release of the newsletter we will sell them to people who have had an allocation but would like more so you're welcome to express an interest if that's you.

- Renaud Bruyère and Adeline Houillon Arbois Rouge Ploussard/Trousseau 2019
- Renaud Bruyère and Adeline Houillon Arbois Blanc Chardonnay/Savagnin (Nouvelles - Viaduc) 2017 **MISSING WAX SO 15% DISCOUNT**
- Michel Gahier Arbois Chardonnay Les Crêts 2020

The RRP for this selection of 3 bottles is \$401.00 but the pack price is only \$351.80. Check with us for the subsidised freight charge to your location.

Pack 2: Octavin Pack (15% discount)



Given such a good response to our last Octavin pack we thought we would create a new one. There are two wines from the Jura (a red and a macerated Chardonnay) both sourced from the same grower, two reds from Provence and macerated wines made with white grapes from Alsace and Roussillon – two extremely different locations.

The first wine in this pack is a red, **l'Octavin Hip Hip J Poulard / Trousseau / Gamay 2018** from the Jura. We don't know a lot about this wine except that we know that at least the majority of the grapes were sourced from Arbois from the vigneron who provides the certified organic grapes for the other Hip Hip wines. It's predominantly Poulard and Trousseau with a little Gamay. It's possible the small amount of Gamay was sourced elsewhere. The characteristics are similar to the 100% Poulard from the same 2018 vintage we had in 2021 and 2022. It's light but obviously unfiltered with a touch of volatile acidity balanced by red fruits, especially pomegranate.

Next is the much-loved Cariboum (2021 vintage) made with grapes from Claude Ughetto's biodynamically-certified vineyards in Saint Pierre de Vassol. Whole bunches of Grenache were covered with the juice of directly-pressed Carignan. It was pressed then bottled in May 2022.

The Grenache grapes for the l'Octavin Ganache 2022 cuvée are also from Claude Ughetto. For 75% of the cuvée whole bunches were macerated for one month. 25% was infused in juice for one week. It was bottled in June 2023.

We had previously received a cuvée of 2020 l'Octavin Hip Hip J Chardonnay, made with macerated juice from the leu dit La Mailloche, where Alice also has vines, but this small additional release has had a slightly different treatment. The grapes were destemmed and then macerated in glass for eight months before pressing and bottling in September 2021. It is the 'en Jarre' in the lot number which differentiates this very limited bottle from the earlier release.

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l'Octavin La Cigogne Green 2021 is a blend of equal parts Gewurztraminer and Pinot Gris. The grapes are sourced from Domaine Marc Humbrecht in Alsace. The vines are certified biodynamic. Whole bunches were macerated for four weeks prior to pressing.

The grapes for l'Octavin Mus'cat 2022 were harvested from Vincent Lafage's certified organic vines in Roussillon, the whole bunches had four days of maceration. The grapes are the Muscat d'Alexandrie variety. The wine was bottled in May 2023.

- l'Octavin Hip Hip J Ploussard / Trousseau/Gamay 2018
- l'Octavin Cariboum 2021
- l'Octavin Ganache 2022
- l'Octavin Hip Hip J Chardonnay (macerated) 2020
- l'Octavin La Cigogne Green 2021
- l'Octavin Mus'cat 2022

The RRP for this selection of 6 bottles is \$483.00 but the pack price is only \$410.55. Check with us for the subsidised freight charge to your location.

Pack 3: Everything has some Chardonnay Pack (Almost 14% Discount)

1 Pack Only



Skip over this one if you believe you don't like Chardonnay because everything in this pack is either 100% Chardonnay or at least partly Chardonnay.

There are four still wines which are 100% Chardonnay. They include one bottle of Renaud Bruyère and Adeline Houillon Arbois Pupillin Blanc Chardonnay Vieilles Vignes 2018. The vines for this cuvée are more than 70 years old. (It also will only be offered for a few more years because since 2022 the Chardonnay that has made this cuvée has been blended with young Chardonnay planted in 2016. So the Vieilles Vignes will disappear from the name.) It spent two years in barrel and was bottled at the end of 2020. It is 13.71% ABV and the bottle is sealed with white wax.

There are also two Chardonnays from Burgundy, both made by Julien Altaber – the iconic Domaine Derain Saint-Aubin 1er Cru En Remilly 2021 and his Sextant Bourgogne Blanc 2022. Both have been directly pressed and aged in barrel, the En Remilly 2021 for nearly two years in just two 500 litre barrels.

The last 100% Chardonnay is from Domaine de la Garrelière in the Loire Valley. Marquis de C 2020 is made from 30+ year old vines from a one hectare parcel in the Touraine. It is slowly pressed, is settled and then fermented and aged in 500 litre barrels. The barrels are of various ages. 1/4 are new, 1/4 a year old, 1/4 two years old and the rest older. There is no stirring of the

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lees. The wine rests on its lees for at least a year and then is assembled in tank 3 to 4 months before bottling.

The last two wines are blends. One is something of a classic – a Champagne which is a blend of Pinot Noir and Chardonnay from Roland Piillot – and the other is less usual. La Joute, from the Mosse family, in the Loire Valley, is a blend of Chenin Blanc and Chardonnay.

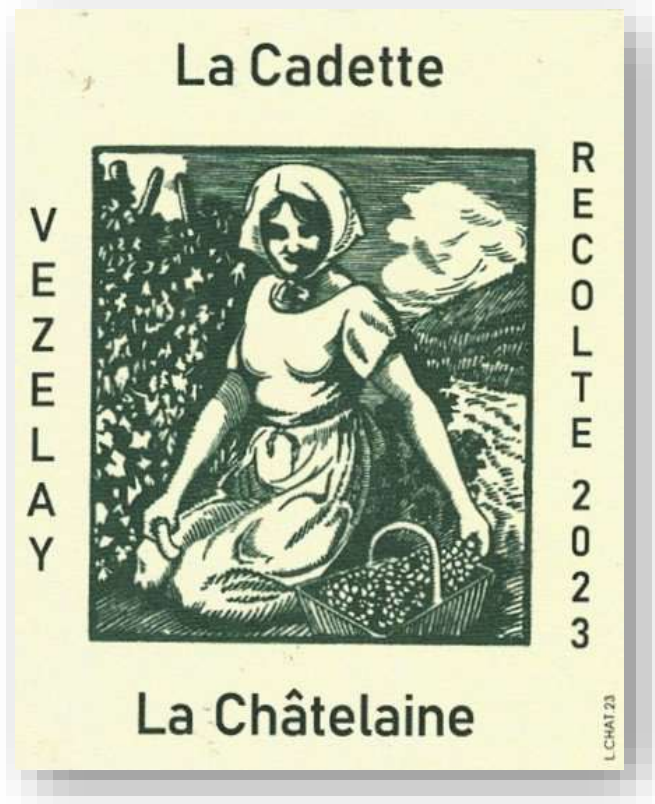
These are the wines:

- Renaud Bruyère and Adeline Houillon Arbois Pupillin Blanc Chardonnay Vieilles Vignes 2018
- Domaine Derain Saint-Aubin 1er Cru En Remilly 2021
- Sextant - Julien Altaber Bourgogne Blanc 2022
- Domaine de la Garrelière Le Marquis de C 2020
- Piillot Père et Fils Champagne Cuvée de Réserve NV
- Mosse La Joute 2022

The RRP for this selection of 6 bottles is \$680.00 but the pack price is only \$586.60. Check with us for the subsidised freight charge to your location.

Pack 4: Cadette White Pack (15% discount)

2 Packs Only



We have written in some detail about these wines in the New Arrivals section of the newsletter ([see above](#) on page 5).

This pack, which is the only way to buy these wines now, because we have sold out has 3 bottles of each white cuvée (the La Cadette Vézelay La Châtelaine 2023 and La Soeur Cadette Bourgogne Blanc 2023).

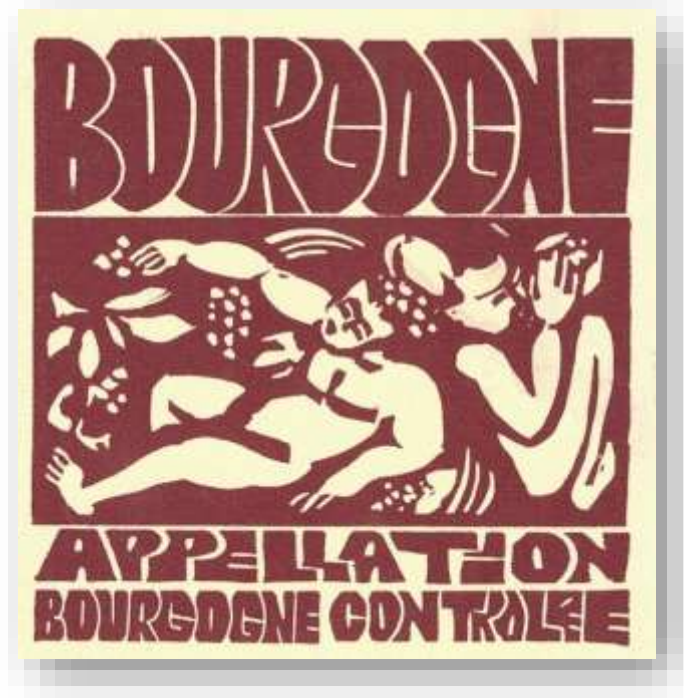
Continuing the theme in the previous pack both are made from 100% Chardonnay.

- La Cadette Vézelay La Châtelaine 2023 **(3 bottles)**
- La Soeur Cadette Bourgogne Blanc 2023 **(3 bottles)**

The RRP for this selection of 6 bottles is \$357.00 but the pack price is only \$303.45. Check with us for the subsidised freight charge to your location.

Pack 5: Cadette Red Pack (15% Discount)

2 Packs Only



We have written in some detail about these wines in the New Arrivals section of the newsletter ([see above](#) on page 5).

This pack consists of 3 bottles of each of the two red cuvées we received.

La Soeur Cadette Bourgogne Rouge 2023 which is made from 100% Pinot Noir and La Soeur Cadette Juliéas 2023 which is 100% Gamay (no surprise since it comes from Beaujolais).

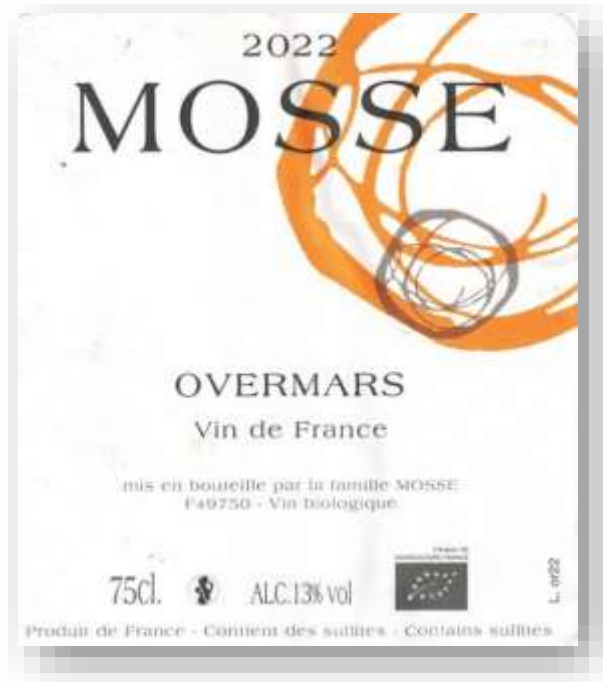
The two red wines for which there are three bottles each are:

- La Soeur Cadette Bourgogne Rouge 2023 **(3 bottles)**
- La Soeur Cadette Juliéas 2023 **(3 bottles)**

The RRP for this selection of 6 bottles is \$366.00 but the pack price is only \$311.10. Check with us for the subsidised freight charge to your location.

Pack 6: Mosse New Arrivals (Oct 2024) Pack (15% Discount)

2 Packs Only



This pack is quite a mix of wines from the Mosse family in the Loire Valley. They are all estate wines (i.e. made with their own grapes not purchased grapes).

These are the wines:

Mosse Aida 2022 (Loire Valley Savagnin - only 12 bottles came to Australia!)

Mosse Anjou Blanc Les Bonnes Blanchés 2022 (Chenin Blanc)

Mosse Arena 2022 (Chenin Blanc)

Mosse La Joute 2022 (Chenin Blanc)

Mosse Overmars 2022 (macerated Chenin Blanc)

Mosse Bisou 2023

The first five are described in more detail in the New Arrivals section of this newsletter ([see above](#) on page 7. .

The final one of the six, Mosse Bisou 2023, is a dark light red wine (we hope that's a helpful description – it's not really light red and it's definitely not red). Either way we'd recommend serving it chilled. It is a blend Grolleau Noir, Grolleau Gris, Cabernet Franc, and Côt (Malbec). The vines grow on a mix of clay, gravel and on altered schist on schist. Each variety is vinified separately with a short carbonic maceration (between 4 and 7 days). After pressing the wine was aged in a mix of one foudre and some barrels for about 6 months. The Mosses' translated description is "Raspberry colour. An expressive nose of cherry, strawberry and white pepper. A frank attack on the palate, light, fruity wine and a tangy finish." It is 11% ABV. If that's not spring / early summer we don't know what is.

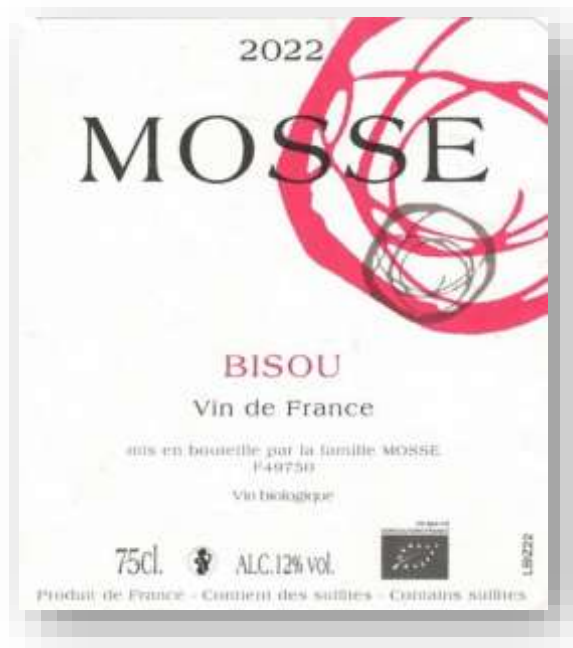
WINE Talk – the newsletter of Living Wines

- Mosse Aida 2022
- Mosse Anjou Blanc Les Bonnes Blanches 2022
- Mosse Arena 2022
- Mosse Overmars 2022
- Mosse La Joute 2022
- Mosse Bisou 2023

The RRP for this selection of 6 bottles is \$472.00 but the pack price is only \$401.20. Check with us for the subsidised freight charge to your location.

Pack 7: A Tidying Pack (Almost 14% Discount)

One Pack Only



This pack is one of our occasional ‘tidying up’ packs of wines which we sold out of but then for some reason no longer did or allocations that somehow evaporated after we had stopped making offers. It’s quite a mix.

There are two wines sold only on allocation or via packs (i.e. never generally advertised). One is the Robinot Les Années Folles rosé pet-nat, made with Chenin Blanc and Pineau d'Aunis. The other is the Mataburro Memo 2022, which is macerated Macabeu.

There are two 2021 vintage pet-nats (the Robinot and a Mosse Moussamoussettes). There are two whites - both from Julien Altaber – our last bottle of Sextant Bourgogne Blanc 2021 and a bottle of his delicious Domaine Derain Bourgogne Aligoté 2022.

Finally, there is a light red – a last bottle of Mosse Bisou 2022. It’s a complete mystery why we still have it.

- Mosse Moussamoussettes 2021
- Jean-Pierre Robinot Les Années Folles 2021
- Sextant - Julien Altaber Bourgogne Blanc 2021
- Domaine Derain Bourgogne Aligoté 2022
- Mataburro Memo 2022
- Mosse Bisou 2022

The RRP for this selection of 6 bottles is \$367.00 but the pack price is only \$315.80. Check with us for the subsidised freight charge to your location.

Wine faults 6: Reduction

In the previous newsletter in September, we addressed oxidation as a fault. One of the learnings from that exercise is that faults are not always faults!

Oxidation can be involved in producing some of the best wines on the planet – think Vin Jaune from the Jura or Sherry from Spain!

This month we are going to briefly discuss another related fault which is called reduction which can also make a wine interesting or make it undrinkable.

Reduction in wine refers to a condition where the wine has been deprived of oxygen for an extended period, often during fermentation, aging, or bottling.

This lack of oxygen can lead to the development of sulphur compounds, which can impart various odours to the wine. The term "reduction" is used because these sulphur compounds result from reductive (oxygen-poor) conditions.

Reduction is relatively easy to detect through aromas. Good reduction (meaning not too much reduction) can result in flinty or mineral aromas. This amount of reduction can make wines very interesting.

Too much reduction can result in aromas resembling cabbage or burnt rubber or even rotten eggs. These are not aromas you want in a wine so this much reduction can therefore be classified as a fault.

Winemakers can reduce the likelihood of excessive reduction by ensuring that some oxygen penetrates the wine during fermentation and aging. One method is to move the wine from one container to another which always introduces some oxygen.

Another method is to introduce small amounts of copper sulphate (not recommended for natural wines as it is an addition) which will bind with the sulphur compounds thus reducing their impact.

An interesting and recent academic paper¹ in a journal called *Molecules* provided an excellent summary of the compounds that can cause reduction and the aromas that these compounds produce.

On the left side of the table below you can see the molecules (compounds as they head the column) that are involved in reduction faults along with the types of aromas that the specific compounds / molecules are responsible for.

Some of the compounds are relatively simple such as hydrogen sulphide (H₂S), but others such as dimethyl disulfide is a bit more complicated (C₂H₆S₂) and 3-(methylthio)-1-propanol (methionol) is even more complex (CH₃S(CH₂)₃OH).

The table is shown on the following page.

¹ *Štefan Ailer et al, (2022) Wine Faults: State of Knowledge in Reductive Aromas, Oxidation and Atypical Aging, Prevention, and Correction Methods. Molecules. 2022 Jun; 27(11): 3535.*

Compound	Aroma Description
Hydrogen sulfide	Rotten egg, sewage-like, vegetal
Methanethiol	Cooked cabbage, onion, putrefaction, rubber
Ethanethiol	Onion, rubber, natural gas, faecal, earthy
Dimethylsulfide	Asparagus, corn, molasses, boiled cabbage, canned corn, blackcurrant, truffle
Diethylsulfide	Cooked vegetables, onion, garlic, rubber
Dimethyl disulfide	Cooked cabbage, intense onion
Diethyl disulfide	Onion, garlic, burnt rubber
3-(methylthio)-1-propanol (methionol)	Cauliflower, cabbage, potato

In the introduction to the paper, they say the following:

Despite the implementation of good winemaking practices, it is not uncommon for reductive aromas to appear in wine during vinification. Goode and Harrop reported that reductive faults are responsible for 30% of all faults in commercial wines and should be considered seriously due to the significant economic impact on winemakers. The discernment of undesirable sulfur off-aromas due to higher concentrations of the above-mentioned compounds in finished wine has a negative effect and devalues a wine's quality, and is a possible reason for the rejection of a faulty wine by consumers. Volatile sulfur compounds thus present a challenge for modern-day winemaking. It is desired to limit (or eliminate) the production of undesirable H₂S and thiols but at the same time, maintain and enhance the production of the favorable volatile thiols.

They clearly set the scene suggesting that many of these compounds need to be eliminated from wines if they are not to be rejected by consumers.

What is Phenolic Ripeness?

The following descriptions of terms used in winemaking arose when a friend asked us to explain the term “phenolic ripeness” that he had heard two winemakers discussing.

We therefore thought it would be a good idea to explain what “phenolic ripeness” and associated terms mean because it involves a crucial factor in the decisions winemakers must make prior to commencing the harvest.

In the 1960s through to the early 1990s when the wine industry was in the grip of a small number of wine critics such as Robert Parker it became fashionable to allow the grapes to fill up with sugar and to pick when the sugar levels were high, thus creating high alcohol levels during fermentation.

Incidentally, leaving the grapes until they were very ripe also meant that they achieved phenolic ripeness in many cases. This will become apparent later in this story.

We need to point out that we are writing this article because many winemakers throughout the world are looking to produce wines with more phenolic ripeness and less sugar ripeness (and hence lower alcohol levels).

We will get to an explanation of phenolics shortly, but it is useful to consider how the grapes ripen and the changes that occur during that time and then the changes that occur in the winery after the decision has been made to pick the grapes and turn them into wine.

Why grapes ripen?

First, why do grapes ripen and take on more colours and aromas? Well, the answer is relatively simple. It is related to the survival of the plants – the plants “want” birds/animals to consume the grapes and then take the seeds somewhere else and excrete them!

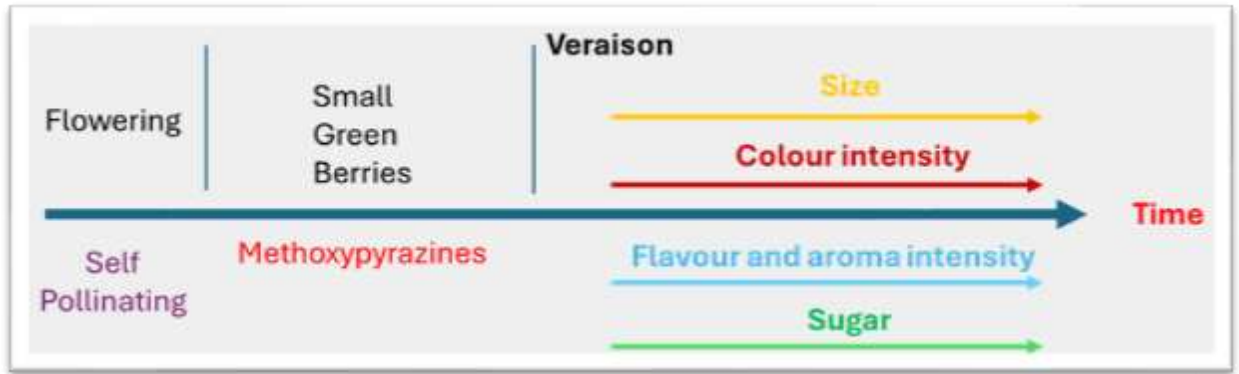
This is a fundamental reason why plants behave as they do – it is all about survival rather than creating the conditions for making good wine for humans.

How grapes ripen

The first stage in the vine creating grapes is the sunlight of spring falling on the vines telling them that the time is right to develop buds. These buds form, and if they survive any remaining frosts then shoots appear and begin to grow.

The next stage is the appearance of flowers. The flowers on grapevines are self-pollinating as they have both male and female parts, hence don't need bees or other creatures for this stage.

When grapes initially appear, they are small, hard and green – not very appetizing or useful and there is little difference between grapes that will become red/purple and those that will remain green. The signal they are sending is that animals should stay away. And if a bird, for example, does try to eat a grape at this stage the presence of methoxy-pyrazines and a number of acids in the grapes with their green and bitter flavours should dissuade them!



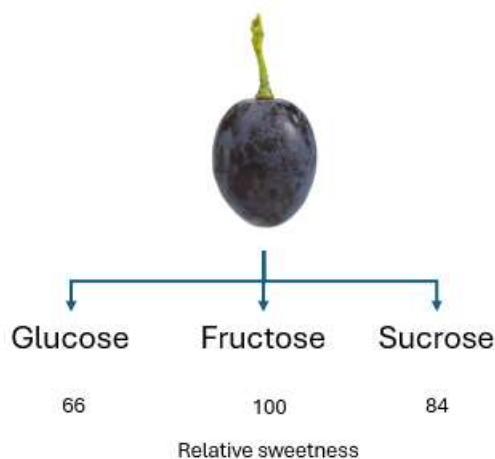
Once the grapes are well-established on the vine they enter a stage which is known as veraison.

Here the plant begins by creating sugars in the grapes. We have written about the photosynthesis process in previous editions of this newsletter. This is the process whereby plants absorb energy from sunlight and convert that energy into sugars which they then store. We will return to this in a moment.

The small, green berries do not have the capacity to accommodate other substances, so when veraison commences so do other changes. One of these is that the grape skin becomes soft so that as sugars are sent through the vine into the grape it can expand in size and accommodate the sugars.

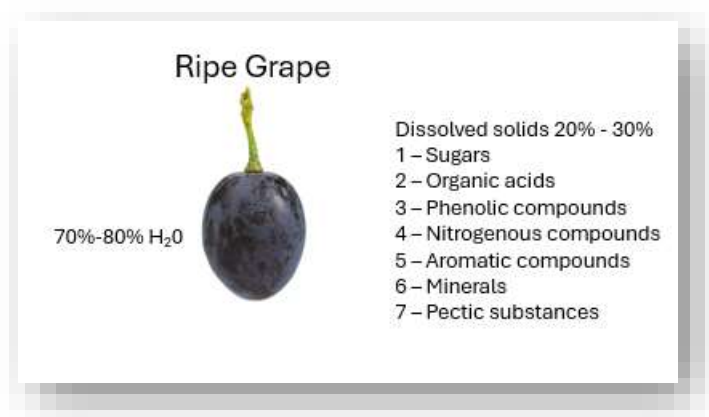
The three main types of sugars that are found in grapes are glucose, fructose and sucrose, with glucose and fructose accounting for approximately 98% to 99.8% of the total sugars in the ripening stage. Note that sucrose is only found in grapes in very low levels, if at all.

The diagram below shows the three sugar types that are found in grapes along with the relative sweetness of those sugars. Fructose is the sweetest and glucose is the least sweet.



Grapes with lots of sugar are much more attractive to birds and other animals because they are attracted to sugars.

The following diagram, however, shows that sugars are only a small part of the ripening process. There are many other chemicals that start to appear in the grapes and stems or that are changed from one chemical type to another as a result of chemical changes that occur during ripening.



You can see in the diagram we have created above that water is the main constituent of ripening grapes, with dissolved solids making up the remainder. One of the types of solids listed on the right is the subject of this discussion, namely phenolic compounds.

With both red and white grapes, the sugar levels are important for determining how much alcohol will be produced in the wine, but it has nothing to do with the colour or aroma or flavour that will be present in the grape and hence in the wine.

So, we have discussed the initial growth of the grapes and how sugar helps the grapes grow in size and also determines how much alcohol will be produced when fermentation takes place. But we need to remember that sugars are not phenolics, the sugars control sugar ripeness not phenolic ripeness – that is a different thing altogether.

The role of phenolics

The wine that will eventually be produced requires depth of colour for red and orange wines and depth of flavour and aroma for all wines. Wines are also judged on their mouth feel and texture. This is where phenolics become important.

It is the phenolic composition of the grapes that also changes during ripening and these phenolics contribute to important aspects of the juice such as aroma, flavour, structure and colour.

It should also be emphasised that the amount to which particular phenolic compounds are found in wines depends on a variety of factors including:

- The species of grape that is being used to make the wine, for example the species generally used in the United States are different to the *Vitis Vinifera* species widely used in Europe;
- The terroir in which the grapes are grown including the soil, the climate, the wind, the water, the rainfall and other terroir-related factors;
- In the case of non-natural wines, the type of added yeasts and associated chemicals used to ferment the wine;
- The type of storage containers used such as relatively neutral containers like fibreglass and stainless steel versus highly reactive containers such as new oak which impart phenolic flavours (particularly tannins) into the wine.

The term “phenolics” is used to cover a wide range of compounds that provide the following features of the wine either directly or indirectly:

- Grape and wine colours;
- Aromas in the wine;
- Flavours in the wine;
- Textural and structural components of the wine.

We use the term phenolics when we are referring to the broad range of compounds in the phenol class. When we are referring to a single compound in that class we call it a phenol.

Let’s dip our toes into a little bit of chemistry. The simplest chemical formula for phenol is C_6H_5OH .

The phenols which contribute to flavours, aromas, structure and colours are found in the following:

- Skin
- Seeds;
- Pulp;
- Stems.

Surprisingly, although we hear a lot about the role that the skins play in providing the colour in red wines and orange wines, the seeds contain a very high percentage of the phenols that enter the wine.

Internal and external ripening

First it needs to be emphasised that phenolic ripeness is affected by both internal and external factors.

In this short article we are concentrating on internal factors.. However, there are also external factors that affect how quickly and completely grapes ripen. These include:

- Prevailing temperatures;
- Other climatic factors;
- The variety of the grapes;
- The pruning regime used;
- The cultivation and ground cover.

Phenolic ripeness described

Phenolic ripeness is easy to describe, but it involves a number of other terms which also need explaining. Here is our description of the term:

Phenolic ripeness refers to the maturity of the phenolic compounds in grapes such as anthocyanins, flavonoids, tannins and others which control aspects of the grapes such as flavour, colour, longevity, structure and texture.

In describing phenolic ripeness (above) we have introduced four terms that require further explanation.

Phenolic compounds refer to the chemical structures (complex molecules) found in grapes which provide the colour, flavour and other features of the grape. In order to achieve phenolic ripeness the vines must ensure that the correct phenols are in the correct place. As an example, the phenolic compounds called anthocyanins which give the grapes their colour must be present in the grape skins.

The definition we have used above is one way to explain phenolic ripeness simply.

The next definition is a slightly more complex one from a chemist's point of view.

Phenolic compounds are a group of secondary metabolites in plants that possess a phenol ring consisting of an aromatic ring with at least one hydroxyl group.

We will provide some examples below to show what a phenol ring and a hydroxyl group look like.

Phenolic ripeness is NOT the ripening of the phenolic compounds - it is the presence of the important phenolic compounds within the grapes and stems of the grape bunches that contributes to the ripeness of the grapes that is important.

Colour as an indicator of phenolic ripeness

Let's first talk about how the colour of grapes change as they ripen. The phenol that is responsible for the colour is anthocyanin which is a polyphenol of the flavonol sub-category. As the grape ripens, more and more anthocyanins are created in the grapes along with the sugar molecules.

The colour of the grapes turn first to a light pink and, as the concentration of anthocyanins increases, the grapes turn a darker shade of red. This is one way that an observer can tell what stage of "phenolic ripeness" is being reached – by observing the colour of the skins.

The red/purple colour of the wine is caused by the anthocyanins in the grape skins being transferred into the juice when the grapes are crushed.

So, observing the colour is a way of determining one aspect of phenolic ripeness.

Of course, the description above only applies to red grapes. White grapes do not go through much of a colour transformation as they ripen.

Flavour as an indicator of phenolic ripeness

There are two major types of phenols found in plants which are classified as flavonoids and non-flavonoids. We mention this now because approximately 90% of the phenols that are active in red wines are flavonoids.

Flavonoids are, as indicated by the name, those phenols that control the flavour of the wine.

Bitterness is a fundamental aspect of nature. As mentioned above, vines are spread by animals such as birds eating the grapes and then dropping the seeds in a new location, thus perpetuating the life of the vines. If the grapes are too bitter, that is have not achieved phenolic ripeness, the birds will, most likely, not eat the grapes and hence not swallow the seeds.

We should add that some grape varieties are intrinsically bitter and when ripe are still slightly bitter. These include one of our favourite grape varieties, namely Pineau d'Aunis grown in the mid-Loire region. There are others such as Pinot Gris, Riesling, Albariño, Gewürztraminer, and Grüner Veltliner that also have residual bitterness. Each of these provides a slight bitterness in the aftertaste which we find quite attractive.

Astringency is mainly due to tannins, the higher molecular weight polyphenolics. Astringency is a feeling rather than a taste. It is caused by the hydroxy (-OH) groups in tannins binding with the protein molecules in the mouth. This is why it is felt throughout the mouth. Bitterness, on the other hand, is a taste and is caused by the lower molecular weight phenolics.

As grapes ripen, the phenols from the flavanoid group known as flavan-3-ol and catechin (found mainly in the seeds) which are responsible for the bitterness in the grapes are replaced by other less bitter phenols. So, as the grapes ripen, the bitterness is reduced by replacement by non-bitter phenols.

A visual indication of this process is provided by examining the seeds which change from an initial greenish colour to dark brown when they achieve phenolic ripeness.

Aroma as an indicator of phenolic ripeness

Aroma can indicate phenolic ripeness however it is a much more difficult indicator to manage as it is nowhere near as dramatic an indicator as flavour and colour. It is also because many of the phenols present in the ripening grape are “precursors” to the eventual aromas that will evolve during the fermentation and aging stages of the wine.

It is also an exceedingly complex scientific process for which there is a very good, but very long, explanation in a paper entitled “The Actual and Potential Aroma of Winemaking Grapes²”.

In the Abstract they summarise the paper as shown below:

The aroma potential of grape is the consequence of five different systems/pools of specific aroma precursors that during fermentation and/or aging, release wine varietal aroma. In total, 27 relevant wine aroma compounds can be considered that proceed from grape specific precursors. Some of them are immediately formed during fermentation, while some others require long aging time to accumulate. Precursors are glycosides, glutathionyl and cysteinyl conjugates, and other non-volatile molecules.

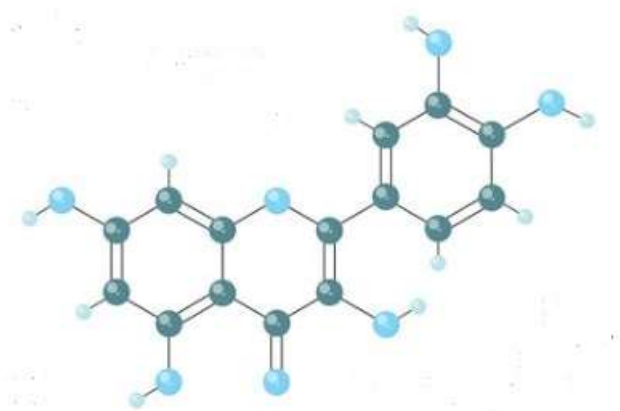
² Ferreira, Vicente et al (2019) The Actual and Potential Aroma of Winemaking Grapes. *Biomolecules*. 2019 Dec; 9(12): 818.

Examples of phenolics

Some examples of these phenolic (polyphenol) compounds (molecules) that are involved in the ripening process are now described below. Remember that there are thousands of polyphenols found in nature and hundreds of these have been identified in various grapes varieties, so we have just chosen a few important ones to describe here.

Quercetin

Quercetin is a flavonoid (a molecule that affects the flavour of wine) that is found in many plants including grapes, onions, capers, grains and many vegetables. Some of the medical benefits of wine also come from these flavonoids which have anticancer, antioxidant, anti-inflammatory, and antiviral properties.



Quercetin

The diagram above shows the atoms in quercetin and how they relate to one another. We have included a few of these as examples because with some chemicals such as tannins (see below), changes in the structure of the compound can change how it behaves.

For the quercetin above, the large dark grey atoms are the carbon atoms (which create the central structure of the molecule), the large light blue atoms are the oxygen atoms and the small light blue atoms are the hydrogen atoms.

Chemical formula: $C_{15}H_{10}O_7$

You can clearly see here how the molecular formula ($C_{15}H_{10}O_7$) was reached – for example you can count the dark grey atoms in the diagram and there are 15 of them – hence the C_{15} in the molecular formula, and so on. You can also see that around the outside is a series of oxygen atoms connected to a hydrogen atom forming an hydroxyl group (OH) as you can see in each of the phenolic compounds mentioned here.

Quercetin has benefits and introduces problems in wine. Apart from the benefits mentioned above they can give rise to insoluble precipitates both during cellar storage and in the bottle, particularly in wines that are high in polyphenols.

One way that vignerons can ensure reasonable levels of quercetin in their grapes is to prune in such a way as to expose the bunches to sunlight, as sunlight helps to create more quercetin in grapes.

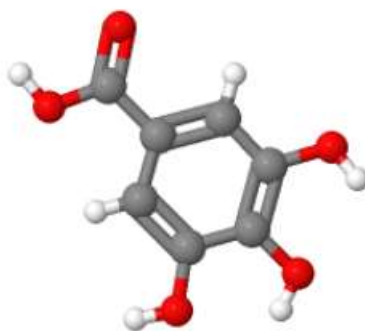
A recent study has also suggested that levels of quercetin that are too high may give rise to headaches in some people.

Gallic acid

Now the same for Gallic acid, which is a phenolic acid which is present in grapes. Here is a quote from a paper which looked into whether a specific electrode could detect the presence of, and measure the amount of, gallic acid in wine.

Gallic acid (GA) also known as 3,4,5-trihydrobenzoic acid is a natural phenolic compound, which can be found in plants like tea, grapes, blueberries, walnuts, apples and herbs.³

It is also known as a secondary metabolite which, in plants, are molecules that are produced by plants but not for the purpose of growth or reproduction.



Gallic acid

. As an aside it is also a key component of honey which has been shown to stimulate stem cells in humans among many other benefits.

It has antioxidant, antimicrobial, and even anti-obesity properties. It may even be beneficial for conditions like cancer and brain health. This compound has been reported to have therapeutic activities for gastrointestinal, neuropsychological, metabolic, and cardiovascular disorders.

The red atoms in the diagram above are oxygen, the white atoms are hydrogen and the grey atoms are carbon.

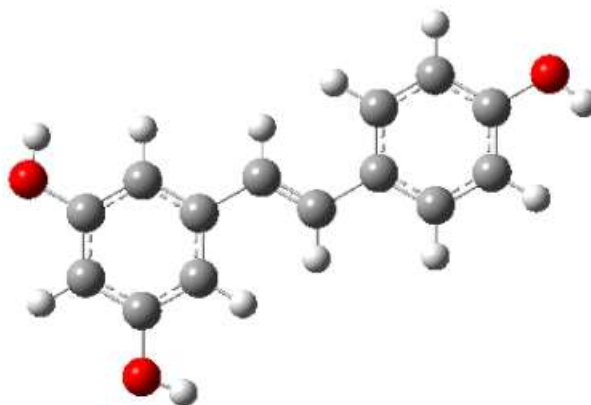
Chemical formula: $C_7H_6O_5$

Gallic acid is considered the most important phenolic acid in red wine with a concentration of around 70 mg/L, while levels can reach 10 mg/L in white wine⁴. It is also very important for being the precursor of all hydrolysable tannins.

³ Chikere, C (2021) *Electroanalytical determination of gallic acid in red and white wine samples using cobalt oxide nanoparticles-modified carbon-paste electrodes*. *Microchemical Journal*, Volume 160, Part B.

⁴ Waterhouse A.L. (2002) *Wine phenolics*. *Ann. N. Y. Acad. Sci.* 957

Resveratrol

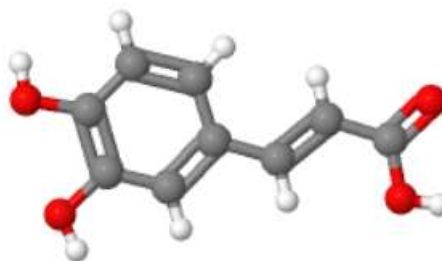


Red grapes such as Malbec and Pinot Noir are the highest source of resveratrol in nature (with Malbec being the highest due to its thick skin). It has beneficial effects on the cardiovascular system, osteoporosis and also has anticancer properties. It is also used by grapes to ward off attacks from bacteria and fungi.

The diagram above shows the atoms with oxygen in red, carbon the larger dark grey atoms and hydrogen the smaller light grey atoms around the outside.

Chemical formula: $C_{14}H_{12}O_3$

Caffeic acid



Caffeic acid

Caffeic acid is similar to, but not as complex, as chlorogenic acid which is a key component of coffee and carries the caffeine that is a vital component of coffee. But caffeic acid is also found in grapes, particularly white grapes⁵.

In the diagram above the grey atoms are carbon, the red ones are oxygen and the white ones are the 8 hydrogen atoms.

Chemical formula: $C_9H_8O_4$

⁵ Hamid Marzag et al, (2014) *Natural Polyphenols as Potent Inhibitors of DNA Methyltransferases. Studies in Natural Products Chemistry.*

It is well known, for example that the Mediterranean diet has positive effects on health. A paper by Migliori and others published in 2015 addresses this diet with the associated wine effects as follows⁶:

The Mediterranean diet, which is characterized by food containing phenols, was correlated with a reduced incidence of cardiovascular diseases and delayed progression toward end stage chronic renal failure. Previous studies demonstrated that both red and white wine exert cardioprotective effects. In particular, wine contains Caffeic acid (CAF), an active component with known antioxidant activities.

Caffeic acid assists with bone health according to another paper we read for this article.

Although there are many other phenolic compounds, the four described above should provide you with some idea about the functions performed by these compounds in the wine. It should also explain a little of why we need phenolic ripeness in grapes before they are harvested because we need the flavour, the colour and the health benefits that these molecules help provide.

Anthocyanins

Anthocyanins are pigments (chemical compounds) that control the colour in the skins and are mainly found in the skins of the grapes. They are polyphenols of the flavonoid variety mentioned above.

When the grapes are picked and then pressed the skins start to release their anthocyanins into the juice, turning the white juice red or purple if the grapes are red or purple.

Remember that nearly all grapes have white juice except for a small number which are called teinturier grapes – these have red juice when the grapes are pressed as the anthocyanins develop in the pulp in the grape as well as the skins. Examples of such grapes are Gamay Fréaux and Alicante Bouschet.

Over the past decade or so, orange wines have also become popular – these are made by leaving the white grape skins in contact with the white juice. As with the red grapes, anthocyanins from the whitish skins are released into the juice thus providing some colour and a different texture.

Anthocyanins also have antioxidant and anti-inflammatory properties that may be beneficial to human health.

During veraison, anthocyanins are created by the plant and they are transferred to the skin of the grapes which, as a result, take on a deeper colour.

⁶ Massimiliano Migliori et al (2015) Caffeic acid, a phenol found in white wine, modulates endothelial nitric oxide production and protects from oxidative stress-associated endothelial cell injury. *PLoS One*. 8;10(4):e0117530.

Tannins

Tannins are complex polyphenol molecules that are responsible for structure in wines and also for ensuring the longevity of wines if allowed to react with small amounts of oxygen over time⁷. They can take on different structures which put them in the flavonoid class and the non-flavonoid class depending on the structure they take on.

- Tannins are key chemicals which are found in the skins, the seeds and the stems of the grape bunches. They are key to the longevity of the wine, the astringency, the bitterness and the “texture” of the wine.
- They are the chemicals that cause the inside of your mouth to react to the bitterness and the astringency of a young red wine for example. As a wine matures and takes on oxygen through the pores of the barrels, for example, the tannins become longer and they change the effect they have in your mouth by being smoother.
- Although we often see statements such as “tannins come from the skins of the grapes” a much more accurate way to describe tannins and their source is that in a typical vine, 58.5% of the tannins come from the seeds of the grapes, 21% from the stems of the bunches, 16.5% are in the leaves (which are not relevant for winemaking) and only 4% in the grape skins.

Quite a good summary of the above is provided in a paper by Daniel Cozzolino⁸ where he states:

Wine is mainly composed of water, alcohol and other minor chemical components such as proteins, sugars, phenolic and volatile compounds that are present at low concentration (mg/100 g). The content of phenolic compounds determines the state of phenolic ripening of red grapes and is a key criterion in setting the harvest date to produce quality red wines. Grape and wine phenolics are structurally diverse, from simple molecules to oligomers and polymers usually designated as tannins. They have an important impact on the organoleptic properties of wines; that is why their analysis and quantification are of primordial importance.

Conclusion

This story represents an introduction to some of the concepts involved in determining phenolic ripeness. We have also discussed the main areas where phenolic compounds are involved such as the colour of the grapes, the flavour of the grapes and subsequently the wine, the aroma of grapes and wine and the structure within the grapes and the wine which is primarily provided by tannins.

⁷ There are a number of ways of doing this such as using corks in the wine bottle or using barrels that have been used a couple of times to rid them of the chemicals in the wood that are so pronounced.

⁸ Cozzolino, Daniel (2015) *The Role of Visible and Infrared Spectroscopy Combined with Chemometrics to Measure Phenolic Compounds in Grape and Wine Samples*. *Molecules*. 2015 Jan 7;20(1):726–737. doi: 10.3390/molecules20010726.

Grape variety – Muscat d’Alexandrie

The Muscat d’Alexandrie grape, also known as Muscat of Alexandria, is one of the oldest grape varieties on the planet. It is part of the larger Muscat family. This family is distinguished by their distinctive aromas and flavours. The family includes Muscat à Petits Grains, Muscat d’Alexandria, Muscat of Hamburg and Muscat Ottonel among a number of others.



Muscat d’Alexandrie is thought to have been derived from Muscat à Petits Grains and an ancient Greek grape variety called Heptakilo or Heftakilo which has recently been rediscovered in the Dominican Republic where it had been planted by Greek settlers.

The beautiful drawing of Muscat d’Alexandrie on this page is from the series that consists of some 7 “tomes” of work documenting every grape variety known to French vigneron in the late 19th Century and early 20th Century.

This drawing came from page 108 in Ampélographie Tome 3. Notice how the grapes have been carefully drawn to show that they are slightly elongated

It has been interesting over the many years we have been importing natural wines to notice how often we have shown a Muscat-based wine to people

who have never tried a natural wine and they have had an immediate positive reaction.

There is just something intriguingly unique about the aroma that follows through to the flavour.

Origins and Early History

According to a number of sources, the Muscat d’Alexandrie grape is believed to have originated in ancient Egypt, where it was cultivated along the Nile River. It is possibly named after the city of Alexandria, a major centre of trade and culture in the Hellenistic period. (It was famous for the amazing library/learning centre where many of the Greek philosophers learned their trade.)

This contention is supported to some extent by its current presence on the island of Pantelleria which is not very far from the ancient city.

The grape was prized for its sweet flavour and was used as both a table grape and a wine grape.

From Egypt, this grape spread to Greece and Rome. The ancient Greeks and Romans were known for their viticulture, and they appreciated the Muscat grape for its versatility and sweetness.

In early Italy it is possible that it was the grape that was called “apiane” in the writings of Pliny the Elder due to the attractiveness of this grape variety to bees (apis in Latin).

Middle Ages

During the Middle Ages, the grape continued to spread throughout Europe. Monastic communities played a significant role in maintaining and spreading grape varieties, including Muscat d'Alexandrie. The grape was cultivated in vineyards associated with monasteries and was widely used for wine making.

In the Renaissance period it wasn't only art, music and literature that saw a revival it was also viticulture practices. The Muscat d'Alexandrie grape benefited from this revival and continued to be a popular variety in Europe, particularly in Italy, Spain, and France.

Modern Era

With the age of colonial expansion, European settlers brought the Muscat d'Alexandrie grape to the New World. It was introduced to regions such as South Africa, Australia, and the Americas, where it thrived in the new climates and soils.

It has also spread widely throughout Europe, including Spain, Italy, France, Germany and Greece.

In modern France this grape is found in the south and in particular around Roussillon where a number of wines are based on the various Muscat varieties. It is also a relatively common variety in Alsace.

In Roussillon there are a number of interesting appellations such as AOC Grand Roussillon, AOC Rivesaltes, AOC Muscat de Rivesaltes and AOC Maury, AOC Banyuls, AOC Banyuls grand cru. Many of these appellations are for sweet wines.

For example, the Banyuls Grand Cru appellation is for sweet wines where the wine must be made from at least 70% Grenache but can be supplemented by either Muscat à Petits Grains or Muscat d'Alexandrie.

In the Maury area there is an appellation of the same name where some interesting sweet wines are permitted. In this appellation it is acknowledged that around Maury the locals call Muscat d'Alexandrie by the name Muscat Romain.

Vine Characteristics

The image below is from the Vitis International Variety Catalogue and clearly shows five points on the leaf of Muscat d'Alexandrie, but very small sinuses which are the depth of the part in-between each lobe of the leaf. You can see a small sinus, for example, at about two o'clock on the leaf and another at 12 o'clock.



Photo courtesy of Vitis International Variety Catalogue

A unique feature of Muscat d'Alexandrie is that the young leaves have quite a pronounced "bronze" colour when they are young.



They gradually lose this colouring and instead change to a green colouring as the leaves get older.

The following photo shows the Muscat d’Alexandrie grapes.



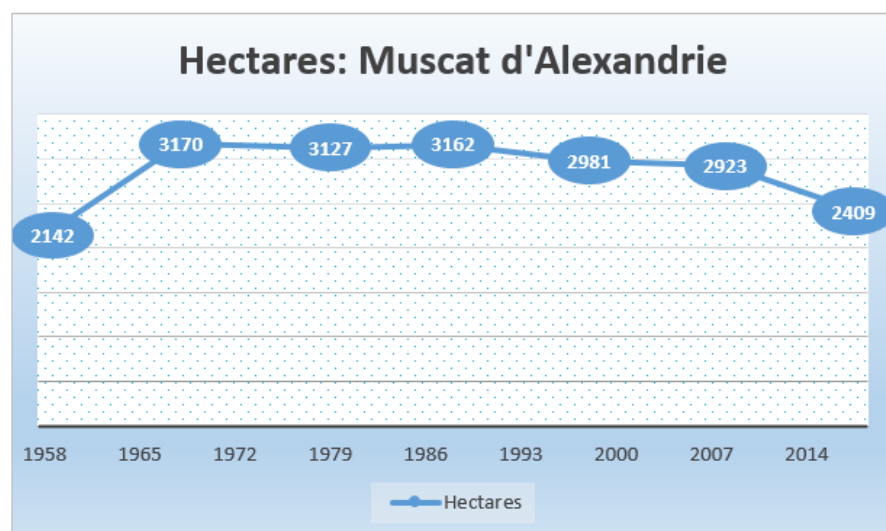
Bunch of Muscat d’Alexandrie grapes

Notice that the bunches are quite open which assists the winds to blow through the bunches thus reducing the risk of diseases.

Area in France devoted to Muscat d’Alexandrie

The following graph shows the rise and fall of the area planted to Muscat d’Alexandrie in France. In fact, the area planted in 1958 and the area in 2018 are reasonably close (2,142 hectares versus 2,409 hectares).

However, there was a significant rise in the sixties to 3,170 hectares but there has been a small but steady reduction in the number of hectares ever since.



WARNING

Under the *Liquor Licensing Act 1990* it is an offence:

for liquor to be delivered to a person under the age of 18 years.

Penalty: Fine not exceeding 20 penalty units

for a person under the age of 18 years to purchase liquor.

Penalty: Fine not exceeding 10 penalty units

Because of the above penalties we are required by the Tasmanian Government to collect your date of birth from you when ordering via the Internet. We apologise for this imposition. In the past we have been able to accept a declaration that you are over 18.