

# What's on at this months FAWG Meeting:

Hi all, for our November meeting we have Tim Elphick coming in to give a presentation on his wines and tell us about his journey in the industry.

You may remember that Tim was going to come to our June meeting but had to cancel at the last moment.



StilviWines is producing innovative, minimal intervention drops with a cross-generational connection. Tim and his daughter Kalypso are excited to show their wares to us this time around.

I should also have some info at the November meeting as to what grapes we have available to us in 2025 for bulk purchasing so don't miss this one.

Cheers from Prezz.

# November 2024 www.fawg.org.au

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### **Coming Up**

Friday 8th-Sunday 1oth November Effervescence - Tasmania's sparkling wine extravaganza in Launceston https://effervescencetasmania.com/

Friday 8th- Sunday 10th November Comedy in the Vines at Mitchelton Winery Ngambie

https://grapesofmirth.com.au/events/comedy-in-the-vines-2024/Saturday 16th

Saturday 16th and Sunday 17th November La Dolce Vita Festival - The King Valley's Italian Food and Wine Festival

https://www.winesofthekingvalley.com.au/ladolce-vita-festival/

Saturday 16th and Sunday 17th November Budburst Wine Festival in the Macedon Ranges

https://www.visitmacedonranges.com/events/budburst-wine-festival/

Sunday 17th November
East Malvern Food and Wine Festival
https://

www.eastmalvernfoodandwine.melbourne/

Saturday 30th November Vinehop Festival on the Mornington Peninsula

https://vinehopfestival.com.au/

Meeting Date	Club night Activity	Competition	Tasting Talk	Industry/Event	Committee Date
November Tues 12 <sup>th</sup>	Start to look at Bulk Grape purchases for 2025	No Comp	Tim Elphick to talk about his wines and Stilvi	Guild wine classes To be finalized	Tues 5th Zoom 7pm
December Sunday 8 <sup>th</sup>	No Club Night End of year. You must book for Xmas party	No Comp	Sunday at Balnarring hall Xmas Party		Tues 3 <sup>rd</sup> Zoom 7pm
January 14 <sup>th</sup> 2025	Start of year Dinner at Hickingbothams To be finalized	Possible grapes to purchase	Andrew will run us through his wines		No Zoom Meeting
Feb 11 <sup>th</sup>		Sparkling wine mini Comp		Summer Winemakers Lunch To be Finalized	Tues 4th zoom 7pm
March 11th		No Comp	My Maltese and Sicillian journey		Tues 4th Zoom 7pm
April 8 <sup>th</sup>		Gordon Evans white wine mini comp		Autumn Winemakers lunch To be finalized	Tues 1st zoom 7pm
May 13th		Chris Myers Red wine mini comp		Wine Tour with Eltham To be finalized	Tues 6 <sup>th</sup> Zoom 7pm
June 10th		Sheila Lee Liqueur & Fortified Mini comp			Tues 3 <sup>rd</sup> Zoom 7pm
July 8th	The Guilds AGM Homemade Night		A chance to show what else you can make	Winters Winemakers Lunch To be Finalized	Tues 1 <sup>st</sup> Zoom 7pm

## Cordon Corner By Mike Payne

For many of us November means the start of flowering and a busy and nervous time as we wait to see what weather mother nature throws at us. Ideally, we would like dry mild weather and light winds just strong enough to transfer the pollen to the base of the flower. As most would know, the grape vine flower has both male and female parts so there is no need for bees or birds to be involved in the process, just good weather. The fruitfulness of the buds is determined in the previous season and is generally two flowers or in some cases three flowers, (inflorescence), per shoot so, as long as the weather does the right thing and the canopy can support the fruit load then all is on target for a good crop.

The other thing that can severely affect the success of flowering is fungal disease and it is through the flowering period that fungicide applications are critical as the flower caps break off and leave the inflorescences susceptible to all matter of fungal infection including powdery, downy mildews and botrytis bunch rots. Usually, a tank mix of products is applied at the beginning and towards the end of flowering to reduce the risk.



#### SENTIA WINE TESTING

The guild has a <u>Sentia</u> wine analyser available to members to have wine samples analysed for FreeSO2 and <u>Malic</u> Acid.

The tests can be carried out prior to guild meetings, starting at 7pm. If you wish to have your wine analysed, please ensure you arrive early and advise Kevin Murphy that you require your wine analysed.

Samples should be kept away from air (ie in a sealed bottle, or sample vial with minimum air space). Only a very small sample is required for the tests.

Costs are: Members - Free SO2 \$6.00 and Malic Acid \$15.00 Non-members - \$10 and \$20. FAWG Calendar

## **Funnies**

- 1. What did the grape say when the elephant stood on it? Nothing, it just let out a little wine.
- 2. What do you call a wine hangover? The grape depression.



- 3. What's the secret to enjoying a good bottle of wine? Open the bottle to let it breathe. If it doesn't look like it's breathing, give it mouth-to-mouth.
- 4. How do you decide how much wine to drink? Take it on caseby-case basis.
- 5. What do you call a grape that is an anti-diuretic? Pinot More.
- 6. We have an open-door policy. Show up with wine, and we'll open the door.

## The Most Expensive Chardonnays of 2024

Don Kavanagh in Wine searcher Saturday, 05-Oct-2024



\_© Martine's Wines I The vineyards of Leroy's Domaine d'Auvenay provide the lion's share of our most expensive Chardonnays.

It's a funny situation when everyone's favorite white wine grape also turns out to be the world's most expensive one. Wildly popular everywhere, <u>Chardonnay</u> has almost become the default dry white wine. Sure, Sauvignon's brassy charms have seduced many, but Chardonnay remains the OG of the white wine world.

Weird then, that it's also the most expensive of the white wine grapes – at least as far as the most expensive versions go. There's a very simple reason for that and it can be summed up in a single word: <u>Burgundy</u>.

Burgundy is both home and high spot for Chardonnay. The grape first reached its greatest heights here along the slopes of the Côte d'Or, wines from Corton, Meursault and Montrachet captivated wine lovers and set the benchmark by which all other Chardonnays were measured. These wines became targets for first connoisseurs and then collectors and investors. The limited supply of these wines, coupled with an increasing demand saw availability squeezed and, consequently, prices skyrocket. Today few Chardonnays from Burgundy are what you might call "everyday" wines. So how did Chardonnay become so popular? Well, that's down to imitation.

Wherever around the world a wine industry popped up – particularly in what is still often, quaintly, referred to as the "New World" – Chardonnay was planted. It made sense to at least try to replicate the wines of Burgundy and, while the results are debatable, what did eventuate was a vast sea of Chardonnay, in a broad spectrum of styles. There was literally something for everyone. As consumers' palates developed and lost their taste for sweeter wines, Chardonnay was perfectly placed to be the next step on the wine journey and, for many consumers, it was as far as they felt they needed to go; plenty of body, flavor and versatility kept them coming back, and back, and back.

Today, non-Burgundy Chardonnays are available at all but the very highest price brackets, but at that top end there is only one place that features. And while the prices might seem downright crazy to some, it's important to remember that these aren't even the highest-priced wines from Burgundy – that honor falls to the region's other great grape, Pinot Noir.

Before we look at Burgundy's most expensive white wines, let's remind ourselves how this series works. The wines are ranked according to their global average retail prices (GARPs), from highest

to lowest. In the interests of fairness, we have excluded any bottlings with fewer than 10 offers, which means there are one or two bottlings that would have made the list, but which are so rare as to be effectively vanished from the retail space.

The World's Most Expensive Chardonnays on Wine-Searcher:

Wine Name	Scor e	Ave Price
Leroy Domaine d'Auvenay Chevalier-Montrachet Grand Cru	98	\$23,121
Leroy Domaine d'Auvenay Bâtard-Montrachet Grand Cru	97	\$20,690
Leroy Corton-Charlemagne Grand Cru	95	\$11,867
Domaine de la Romanée-Conti Montrachet Grand Cru	96	\$11,459
Leroy Domaine d'Auvenay Puligny-Montrachet Les Enseigneres	95	\$9129
Leroy Domaine d'Auvenay Meursault	91	\$8754
Leroy Domaine d'Auvenay Les Gouttes d'Or	97	\$8682
Leroy Domaine d'Auvenay Les Folatières	96	\$8666
Leroy Domaine d'Auvenay Puligny-Montrachet en La Richarde	95	\$8550
Leroy Domaine d'Auvenay Meursault Les Narvaux	96	\$7635

If revenge is a dish best served cold, then Lalou Bize-Leroy must be dining in a freezer. Once a codirector of Domaine de la Romanée-Conti, she left in 1991 after a dispute over how the estate was being run, concentrating instead on her own holdings. She took over sole charge of <u>Domaine</u> <u>d'Auvenay</u> after her husband died in 2004 and oversaw the gradual supplanting of DRC as Burgundy's top producer – at least as far as price is any indicator. The level of dominance is extraordinary. Eight of the top 10 are from the small estate, which has only four hectares (10 acres) of vines, plus one from the "larger" (25ha) Leroy estate, and there are a total of 13 Leroy wines in the top 25. Take that.

Although prices have fallen back slightly since their peak in late 2021 and early 2022, the wines are all impressively more expensive than they were even four years ago, mostly due to the burgeoning reputation of these wines, coupled with their scarcity. Some have simply risen steeply in price, others have gone off like a nuclear warhead. The wine with the slowest-growing GARP over the past four years is the DRC. There are a couple of reasons for this: it started at a higher level (it would have been the most expensive of these wines four years ago) and, perhaps, it doesn't have the name Leroy about its person. Those wines have risen at astonishing rates. Take, for example, the top wine. Four years ago, it cost one-third of what it costs today – the retail price has tripled in just four years, and it wasn't exactly cheap back then (\$7500). The Bâtard-Montrachet, by comparison, "only" went up by a factor of 2.5, from \$8000 to more than \$20,000 today.

The Les Gouttes d'Or and the Puligny-Montrachet en La Richarde rose by a little less than threefold, while everything else more than tripled. The Les Folatières was the top scorer, with a more than five-fold GARP increase, from \$1633 in 2021 to \$8550 today. These wines are all clearly great wines, judging by their critic scores, but they are in a class apart when it comes to price.

For some time now, there has been talk of a ceiling for Burgundy prices, especially white Burgundy. However, the Leroy wines – and the prices collectors are willing to pay for them – have simply gone through any notional ceiling as if it wasn't even there. That's some achievement from wines that are – in essence – made from the same grape as the wine most of us are likely to open after a tough week at work.

Well – we can always pretend, can't we?

## WBM / October 2024 / Winemaking - Controlling the Addition of Oxygen to Wine

Exploring Modern Micro-oxygenation Equipment Options by Richard Carey Oct 1, 2024

MICRO-OXYGENATION WAS DEVELOPED AND INTRODUCED by Patrick Ducournau and Thierry Lemaire of the French company Oenodev in the early 1990s. Today, it's well known that this process enhances the development in a range of wines, especially those with high levels of tannins. There have been many players that have entered and left the micro-oxygenation (MOX) market over the years with different technologies. Currently, there are three main equipment designs used in the wine industry. The equipment is conveniently divided to span capabilities, from manual non-automated control (for example, Westec) in the setting of flow controllers to desired delivery levels; to moderately automated control, consisting of digital control of flow valves (the companies discussed below); to fully automatic molecular level oxygen delivery (for example, Parsec). References at the end of this article provide valuable resources with significantly more detailed information about all aspects of micro- and macro-oxygenation of wines.

How Micro- and Macro-oxygenation Affects Wine Before getting into how the equipment operates, it is useful to review the basics: how oxygenation can improve the quality of the final product. MOX equipment can also be used for macro-oxygenation, in some cases. In others, a second piece of equipment is necessary.

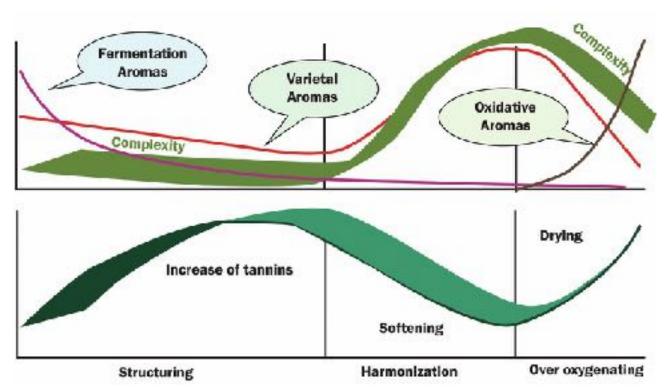


FIGURE 1 Micro-oxygenation follows a predictable flow through wine development, first by fixing the anthocyanins to tannin compounds and also by enhancing the polymerization of the phenolic compounds. These functions build structure and then soften the compound to build mouthfeel and the length of time the wine lasts on the palate. Too much MOX results in a short-lived wine with an oxidative flavor profile.

Macro-ox is used, during primary fermentation, to start the co-pigmentation of tannins from oak and grape tannins to fix anthocyanins to the phenolic compounds. Macro-oxygenation can reduce stress on the yeast by adding to the aerobic fermentation part of the yeast metabolism, building stronger cell walls. Adding oxygen during primary fermentation will also reduce the probability of reductive aromas arising during primary fermentation.

After primary fermentation, micro-oxygenation is used to impart structure and harmonization into wines. (FIGURE 1) demonstrates the organoleptic phases of a wine's development that can be modified by inserting oxygen into the wine in a precise, controlled manner. This allows for molecular oxygen to be metered into the wine at a rate that provides for non-oxidative condensation reactions to help polymerize tannins. This reaction softens the tannins and helps anthocyanins become fixed to the phenolic compounds, stabilizing the color of the wine.

Like any chemical reaction in a fixed volume, such as a tank, the result of the reactions is not easy to identify in the earliest stages of oxygen injection. As the reaction continues, the result begins to present itself through some visual difference, or a taste or smell in the wine. One must be aware that these reactions irreversibly change a wine's aroma, flavor and structural profile in incremental ways, so very careful, frequent observation of the wine's progress must be conducted and noted so that, later in production, the wine will not be over-oxygenated. As I said in a previous article in WineBusiness Monthly (WBM) in April 2020, adding oxygen to a wine is like trying to stop a large boat at the dock with a soft landing. One must turn off the power before reaching the dock, or the boat may be DOA on 4th Street with a dead boat (i.e., a wine with too much oxygen). It is important to note that



these reactions don't turn off precisely

when the supply is stopped.

Winemakers who are tasting wines during processing are always cognizant of what they want the wine to taste like at its peak flavor, aroma and structure. Micro-oxygenation allows the hastening of the maturation process so a wine can be released sooner into the market and be ready for immediate consumption. Maturation of wine aging is a sliding function that winemakers need to gauge in terms of how the wine tastes today and then project how it will taste at an expected peak or some ideal time down the road. If that time is too far in the future, then the winemaker must decide how to accelerate the maturation process to meet the commercial quality and acceptance of that wine. If the understanding about a wine indicates this is a long-lived wine that won't be ready for drinking for a number of years in the future, a decision can be made to advance that process so that it will reach

that point in a shorter time frame. This cellar management decision then shortens a wine's life by an equal amount at the end of its life.

#### MACRO-OXYGENATION REACTIONS

Most winemakers have experienced what appears to be a loss of color in red wines shortly after fermentation due to a shift in the free anthocyanin molecules from the pigmented form found at a wine's lower pH. If the pH rises during fermentation, a lighter colored wine often appears. This is because anthocyanins have a dissociation between the more pigmented flavylim cation form and the higher pH, colorless hydrated hemiketal form. As pH approaches four and up, a much greater concentration of the hemiketal form exists. So as not to lose this color intensity, the free anthocyanin needs to be fixed to a tannin molecule. This function is facilitated by the presence of oxygen.

Macro-oxygenation is used during primary fermentation, because the volume of oxygen needed to facilitate the condensation reactions that fix anthocyanins to phenolic molecules and polymerization reactions is much greater than what is used for MOX.

It is important to understand the main difference between the Parsec systems and the rest of the companies that supply macro- and micro-oxygenation equipment. All other systems add oxygen in ml/L/day for macro-oxygenation and afterwards as low as  $\mu$ L/L/month for micro-oxygenation. Parsec equipment is based on delivering oxygen by weight per day or month. The function of these additions, whether for primary fermentation or during the aging cycle, is to fix the free anthocyanin compounds to a tannin moiety in the condensation reaction between anthocyanins and phenolic compounds. This fixes the color of the anthocyanin so that it cannot switch to the hemiketal form, which is colorless. The more quickly this is accomplished, the better hue and intensity of a wine's color.

Design Principles for Metering a Gas into Wine When selecting equipment to add oxygen to a wine, it is not a process of "pick a flow rate and see how it goes." Micro-oxygenation is a hands-on task that takes an extended period of time to dial in what is needed to get a particular wine to its targeted condition for release on a repeated basis. One needs to understand the evolution of the flavors and textures that take place in the years after release. It's a good idea to stop earlier than later to ensure that the wine hasn't aged too quickly.

Ox Box by Westec, originally designed by StaVin, was one of the early U.S. adopters. OenoDev equipment, developed in France, was the first to commercialize micro-oxygenation. Both companies used the basic design principle of a finely controlled flow valve that delivers repeated accurate flow rates. Ox Box was installed at Safe Harbor Wine Storage 17 years ago by Jeff Murrell. The Ox Boxes used there are in their original form and are still in use today. The Ox Box is a manually operated system where flow levels are selected manually, and pressures are regulated manually. Excel spreadsheets aid with the choice of control. Murrell says the manual system is useful for helping ensure the user doesn't forget the attention needed to manage micro-oxygenation.

Vivelys' OenoDev system has a digitally-regulated, flow-controlled system that takes advantage of increased flow level precision but also allows for the calculation of oxygen delivery levels-without Excel spreadsheets. Although there are definite differences between the different vendors in the actual calculations and operation of their systems, all but the Parsec system operate on the flow of oxygen through a regulator system based on the volume of gas.

To achieve the desired degree of precision in oxygen flow rates, one needs to consider several physical factors of control: temperature of the gas at the meter, the wine's head height in the tank volume, the temperature of the wine, the degree to which the diffuser may have restricted flow for any reason, and the status of the connections in the tubing system and gasket integrity.

MARKETING STRATEGIES Since the vast majority of wines today are designed to be more approachable when released and very few wine drinking consumers will age their wines, winemakers should be willing to reserve at least a portion of their wines for treatment to maximize their organoleptic qualities such that they are ready to drink as soon as they are released, leaving a library portion to age for secondary sale. Be aware that the other side of that issue for the early released wines is that micro-oxygenation shortens the length of time the wine will be at its peak flavor, texture and balance, so don't hold back any micro-ox treated wine.

Review of MOX Equipment Information about the representative equipment from the manufacturers of micro- and macro-oxygenation equipment is included in this section. There are many variations that can be implemented. The more manually operated equipment gives the user the discretion on how they want to use it. The more automated the equipment, the more precise the delivery can be and, therefore, more likely that it will provide more uniform results.

There is one cautionary note on manual versus automation. With the "hands-on" equipment, the user is behind the wheel, driving the "Ferrari" down the road. Automation sets in mind an autopilot so that, in the process of winemaking, the winemaker can take their mind off the road and then possibly end up in a ditch. That beeping sound coming from the equipment could indicate that the tank is out of gas, or the untasted wine may be getting "burned" with too much oxygen.

#### Agrovin Equipment Models

	No. of Outlets	Tank capacity	Connectivity	Type of diffuser	Working procours	Maximum gas ticw par cullet	Screen	Electrical Connector
DeciCs QK	2	1 - 82C N.,	USB online	Stainless steel/ce- ramie	4 - 6 har	12 YL 0 <sub>2</sub> /3	4,3° capacitiva	110/220 V
DeelCx SX	1 - 91*	1-1500PL	WH and lift emat	Stainless steel/ce- ramic	4 - 6 bar	16 74 J <sub>2</sub> 15	7' capacitive	110/220 V

#### **AGROVIN**

Micro-oxygenation is a technique used to add a user-defined quantity of oxygen to wine in a slow and controlled manner. The aim is to maximize the grapes' color potential during vinification and aging, thereby ensuring that coloring is preserved as much as possible. It is a highly versatile technique and may be applied at any stage of the winemaking process between the start of vinification and bottling.

When applied between the end of alcoholic fermentation and the start of malolactic fermentation, it favors color stabilization and polymerization, thereby preserving color levels.

When applied after malolactic fermentation, depending on the wine treated and its characteristics, micro-oxygenation can provide, among other functions:

#### DOSI-OX OX-2

Structure and pre-age.

- · Stabilize color.
- Smooth out aggressive tannins.
- Enhance aromatic complexity.
- Re-establish electrochemical potential.
- Enhance herbaceous aroma quality.
- · Remove reduction aromas.

#### DOSI-SX1

This unit can provide both versatility and safety. It is adaptable to the needs of each winery, with several models available, ranging from two to 64 dosing outlets applicable to tanks from 1 to 1,500 hl. Its advantages include:

- Simple to operate.
- Digital control of all parameters via PLC.
- Separate IP that allows remote programming and operation from any location

#### **AEB GROUP**

MICROSAFE O<sub>2</sub> SINGLE UNIT: A single dosing unit to control a single tank, with digital settings to select the oxygen dose to be added. It comes with all the alarm systems (e.g., temperature, clogged cartridge, etc.) included in the advanced Microsafe product line.

MICROSAFE  $O_2$  5X5: This equipment manages up to five tanks with one system. Compact and easy to mount, it's designed to facilitate connection of the diffusers and the feed system. Alarms and control systems are included on the displays to show the progress of the micro-oxygenation process in each active tank.

MICROSAFE O<sub>2</sub> 15X15: The most advanced micro-oxygenation system that controls up to 15 tanks. The unit manages oxygen dosing, and can control refrigeration temperature, fermentation kinetics and pump-overs, punch-downs and sprinklers.

MICROSAFEX6 6 TANK MACRO-OXYGENATION SYSTEM: Six-port unit that cycles dosing to tanks every 10 minutes. Designed for primary fermentation for wines greater than 8% ABV, it measures real time temperature and delivery pressure to calculate correct dosage. Feeds dosage to tanks from 200 hL to 8,000 hL in 10 steps. Delivers oxygen to all six ports from 1 mg/L/day to 20 mg/L/day in 0.1 mg/L steps, delivering up to 15 kg of oxygen in one day. For a single port, the maximum daily dosage of oxygen is equal to 2.5 kg/day. This is equivalent to 3.12 mg/L for an 8,000-hL tank.

#### **PARSEC**

SAEn4000: Two tanks.

SAEn5000: Base of five tanks, adding increments of five tanks up to 100. Parsec offers integrated microprocessor control of each tank delivery. Its patented system measures oxygen by weight, not volume, for accurate, slow continuous delivery unencumbered by atmospheric conditions or temperature fluctuation, and there is no need for pulse oxygen injection. However, there are alarms for diffuser delivery malfunctions and back pressure compensation.

Parsec's system accommodates for accurate oxygen delivery, compensating to the height of the wine held in the tank. Slow, steady oxygen can be delivered at any rate, from 0.5mg/L/month to 6mg/L/day in volumes of 2.25 hL to 500 hL (60-gal to 13,200-gal). All oxygen tubing surfaces are treated to be compatible with pure oxygen gas contact, with no dependence on gasket materials for sealing.

#### **JUCLAS**

According to the company, micro-oxygenation is used mostly in red wine production. In this process, a very small measure of oxygen will be applied to the wine over a long period of time (0.50-6 mg per liter wine per month). This amount serves to equal the amount of oxygen the wine would have absorbed if kept in a wooden barrel. The purpose of this process is to stabilize color and quicken tannin polymerization. The wine produced will be softer and rounder.

#### MicrOdue® Plus

This unit has the following characteristics:

- · Delicate volumetric dispensing.
- Six independent dispensing points.
- Set up of the dispensing scale in mL/L/hour, mL/L/day, mL/L/month.
- Duration preset for each dispensing point.
- Patented output system consisting of a piston-driven delivery mechanism calibrated to deliver volumes of gas to normalized conditions based on standard temperature and pressure for more accurate delivery of oxygen.
- Portable device.
- Accessible and subitizable ceramic cartridges with defined micrometer features.

MacrOdue® is a portable tool suitable for providing oxygen in various oenological operations where the macro-oxygenation technique can be applied to oxygenation during primary fermentation.

#### **VIVELYS**

CLIQUAGE is an input of oxygen that enhances the metabolism of the yeasts, increasing their viability. during fermentation by providing more resistance to alcohol. It can also be used during aging to "open" the redox potential of wines and get rid of reductive aromas before bottling.

MICRO-OXYGENATION provides a precise, continuous input of oxygen with an organoleptic impact on the wine. The creation of the "ethanal" bridge makes it possible to form complex

polymers of anthocyanins and tannins, which, in the case of a favorable anthocyanin ratio, have a positive impact on the wines.

CONTROLLED OXYGENATION OF MUSTS ( $O_2$  CM) consists of determining, based on a natural enzymatic mechanism, the precise dose of oxygen needed to eliminate polyphenols while optimally preserving aromas. The Visio<sup>TM</sup> range makes the precise and safe input of oxygen possible.

#### OX BOX

The Ox Box is based on classic gas chromatograph technology. Like the HP 5700 GC, the Ox Box uses a high precision flow regulator combined with mechanical flow controllers to set oxygen flow for each tank. The flow meter is electronic and needs to be on only when setting flows to each tank. The "jumper" tubes either directly connect the flow control to the tank or are used to orient the oxygen flow through the flow meter, when setting the flow to each channel. The four bottom gauges measure back pressure due to the depth of wine exerting pressure against the stone. Once set, these gauges measure a small amount of back pressure. Simply note this beginning back pressure: if the pressure rises more than 5-6 psi, the sparge stone may be clogged or fouled and should be cleaned. WBM

#### References

- 1. Parish-Wollan-Paul, MicroOxygenation, WIWP\_2001
- 2. McCord, Murrell 2nd Ed Booklet Micro oxygenation home page (stavin.com)
- 3. Winemakers Research Exchange Joy Ting 2021 winemakersresearchexchange.com/learn/micro-oxygenation

### OxBox Equipment Models

Model	Visio™ S	Visio™	Gran Visio™	
Number of tanks	2 tanks Not upgradable	4 to 96 tanks Upgradable to 4 by 4 or 6 by 6	From 6 to 96 tanks. Upgradable to 6 by 6	
Specific- ities	Transportable	Large cabinet option	"Nitrogen back pressure" function	

Spanish Night
Thanks to Dave and Paul for organising such a great night! The wine was interesting and fabulous and the food was awesome! Thanks to everyone who worked on the set up, in the kitchen, packing up, organising prizes and the raffle. A huge team effort made for a very enjoyable evening for all.









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