Portland Winemakers Club

Monthly Events

January 15th, 2020
Crush Talk & Planning

January 25th, 2020
Annual Gala

February 19th, 2020
Bordeaux varietals and Bordeaux blends, Blind Tasting

March, 18th, 2020
Speaker Meeting CANCELLED

April 15th, 2020
ZOOM VIRTUAL MEETING

May 20th, 2020
ZOOM VIRTUAL MEETING
Speaker: Richard Holmes, Ciel du Cheval vineyard

June 17th, 2020
ZOOM VIRTUAL MEETING
Speaker: James Osborne, OSU Enologist

July
Annual Picnic CANCELLED

July 15th, 2020
ZOOM VIRTUAL MEETING

August 19th, 2020
ZOOM VIRTUAL MEETING

September, 16th, 2020
Other Reds Blind Tasting

October 21st, 2020
Pinot Noir Blind Tasting

November 18th, 2020
Crush Talk

December 16th, 2020
Elections, Planning for Next Year, More Crush Talk

NOTE: Tours, Gala & picnic date & times may vary depending on availability.

Portland Winemakers Club

August 2020

"Bill's Meanderings"

I have to admit that I've struggled to come up with a topic for my usual ramblings so I'm going to say a few things about my little vineyard, again. Now that is something I can talk about. So, like winemaking there is a lot of labor that goes into maintaining a vineyard. With grapes being available in the $1 to $2 per lb range one wonders how grape farmers can afford to grow them. It all starts with pruning last year's vines, then going back to laying down and tying the fruiting cane. Next the spraying starts, so far 10 sprays and I still have three areas of mildew outbreak, then the straightening of the vertical shoots and removing leaves from the fruit zone on the morning sun side. Next is hedging, trimming the shoots that get to long and clog the isles, I've done this twice by hand now. Oh, I forgot to mention going through the vineyard about every other week and rubbing off or hand pruning all small shoots and suckers on the trunk and also thinning the head area down to the two or three vertical shoots for the fruiting canes next year. This is a good time to drop excess or ugly fruit. At that point the vines look like this picture I took today:,

In the next week the clusters will close up and the berries will be tightly touching. Right after that will be véraison and time to put the netting up to keep the birds out. About three more sprays and towards the end of September you hope the vines look like this:

It reminds me about the first time I took someone's offer to help to make wine. The job for that day was racking about six carboys. I handed them an apron and said we need to wash and triple rinse, drip dry, and sanitize six carboys. A couple of hours later they were wondering when are we going to make wine?

Drink Responsibly. Drive Responsibly.

Upcoming events / Save the date

Club Meeting: The next meeting is scheduled for August 19th , "Zoom" sign in will be at 6:45 pm. This will be available on any device that can connect to the internet and has a camera and speaker capability such as a computer, iPad or smart phone etc. Jon Kahrs will again be the moderator. We will provide further sign in information and other details by e-mail prior to the meeting.

Agenda: We will go through introductions and pending club business. Any time left over will be used for general winemaking discussion.

Website: http://portlandwinemakersclub.com/

July Zoom Meeting Minutes

Present: 23

- **There was some discussion about grape orders. Bob Hatt has placed all of the orders. A question – Is it too late to place an order? Bob – Probably not for Chandler Reach or Jim Jamison since they have plenty of grapes or possibly Cameron Fox.**
- **Having a speaker each meeting has worked well in the Zoom format and allows the speaker to participate from their home or office. As of now we don't have a speaker for the August meeting.**
- **The fact that our meetings are being held by zoom should be put on to our website. Bill will talk to Alice.**
- **Bill asked about the logistics of picking up grapes. Bob roughly outlined what the process should be for most people.**
- **Barb T. reported about $2400 in our account.**
- **Ken will re-send the Pay-Pal information to members for those who have not paid.**
- **Bill introduced our speaker Andy McVay who has been in the Wine industry for 17 years. He is now head winemaker for Dobbs Family Estate as well as for Dundee Vintners.**
- **Andy's talk covered red and white Rhone varietals, B-glucosidase and Rose wines. Andy was particularly excited about the enzyme B-glucosidase for enhancing aroma in certain white grapes. A UC Davis reference mentioned in his talk is re-printed below. Andy's lecture slides are available for those interested.**

Key aromatic substances in particular wines, such as Muscat, Gewürztraminer, Riesling and Torrontés. By Trevor Grace, 2015

The constituents responsible for the characteristic floral and fragrant Muscat aroma in grapes and wine are known as **terpenes**. These molecules are present in very small concentrations, yet they have a considerable impact on the organoleptic properties of grapes and wines. Some Muscat cultivars include Muscat of Alexandria, Muscat de Frontignan, and Muscat Hamburg. Other well-known terpenic varieties include **Riesling, Gewürztraminer**, and **Torrontés**. These grapes produce some of the most popular and well known white wines in the world, undoubtedly because of their distinguished and recognizable aromas.

The classification of grape varieties can be divided into Muscat with free volatile terpene concentrations as high as 6mg/L, semi-Muscat or non-Muscat aromatic varieties with concentrations of 1-4mg/L, and neutral varieties that aren't dependent on terpenes for aroma <1mg/L.

Terpenes are a large class of organic compounds produced by plants, and they are the main components of essential oils. Terpenes are isoprenoids and they are derived from a 5-carbon unit with the formula C5H8. They exist as multiples of this unit with the most predominant in grapes and wine being monoterpenes (C10H16). Over 50 terpenic compounds have been identified in grapes and wine.

The most pronounced terpenes in Muscat grapes and related cultivars include linalool, geraniol, and nerol (Figure 1). **Classic aroma descriptors for these molecules include floral, rose, citrus, coriander, and spicy.**

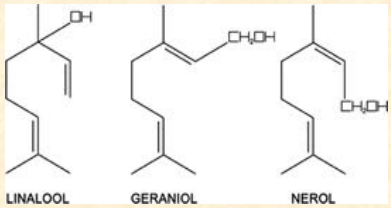


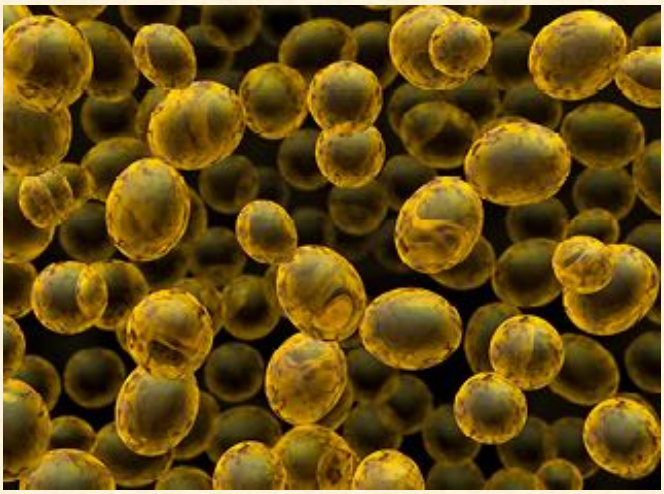
Figure 1

Figure 1 The structure of **terpenes** typically found in Muscat grapes and other non-Muscat aromatic varieties. These molecules have floral and fragrant sensory attributes.
Terpenes originate in the exocarp (skin) of grapes. To maximize terpenes in the vineyard, practices might include a well-conceived trellis system, vigor control, shoot trimming, and leaf thinning to increase light penetration to the fruiting zone. Adequate sunlight exposure has been shown to increase monoterpenes in Riesling grapes. Moreover, extended maceration of Gewürztraminer has led to higher concentrations of terpenes when compared to free-run juice.

Terpenes exist in grapes and wines as either glycosidically bound potentially volatile terpenes (PVT), or unbound free volatile terpenes (FVT). PVTs are two to eight times more common than free form volatiles. These bound molecules don't make a contribution to the aroma until they are hydrolyzed which occurs in the presence of acids or enzymes (natural or supplemented). Recently, certain *non-Saccharomyces* strains have been investigated for their exceptional hydrolytic capability in cleaving terpenes from sugars in Muscat grapes.

Chenin blanc and Pinotage fermentations with South African Torulaspora delbrueckii yeast isolates

by Neil Jolly & Valmary van Breda | 1 Oct, 2019



Nine South African *Torulaspora delbrueckii* yeast strains, a commercial *T. delbrueckii* strain and a commercial *Saccharomyces cerevisiae* yeast strain were used for the production of small-scale Chenin blanc and Pinotage wines.

Introduction

Spontaneous fermentations, driven by the yeast naturally present in grape must or found in the cellar environment, carry a high risk of an undesirable outcome. However, under favorable circumstances there can be a positive and desirable effect on wine flavor and complexity. This is due to specific non-*Saccharomyces* yeasts found in the crushed grape must. As much as 90 – 100% of the total population of indigenous yeasts are non-*Saccharomyces* and numerous studies have shown how they can affect the chemical and sensory profiles of wine. It is especially *Torulaspora delbrueckii* species, previously also known by their anamorphic name *Candida colliculosa*, that have received much attention. Selected *T. delbrueckii* yeasts isolated in other countries have been commercially dried for use in co-inoculated fermentations with a *Saccharomyces cerevisiae* wine yeast. This gives winemakers a tool to obtain the beneficial effects of a spontaneous fermentation without the accompanying risks.

A prior laboratory-scale investigation found a considerable amount of variation in the fermentation characteristics of 47 South African *T. delbrueckii* yeast isolates. While most were unable to completely utilize all the grape sugar, some had the potential to complete the fermentation as a single inoculant. Consequently, in this investigation nine *T. delbrueckii* yeast isolates were investigated in single, or co-inoculated fermentations with *S. cerevisiae*, for small-scale Chenin blanc and Pinotage wine production. The weaker *T. delbrueckii* fermenters were used for co-inoculation, and the more vigorous fermenters were used for single inoculations.

Materials and methods

Nine *T. delbrueckii* strains, previously isolated from different areas in the Western Cape and two reference yeasts (one commercial *T. delbrueckii* and one commercial *S. cerevisiae*) were investigated. Small-scale wine production trials were carried out in a clarified Chenin blanc grape must (22.2º Brix, 7.0 g/L total acidity, pH 3.42) and Pinotage grape must (25.1º Brix, 6.3 g/L total acidity, pH 3.38). Seventeen fermentation treatments were initiated in Chenin blanc, comprising single *T. delbrueckii* yeast inoculations and co-inoculations (*T. delbrueckii* followed by *S. cerevisiae* at zero, 24 and 48 hours, respectively). A reference fermentation with *S. cerevisiae* only was also included. The fermentations were conducted at 15º C. Nine Pinotage fermentation treatments were also carried out with similar single and

co-inoculations at 24° C. All fermentation treatments were performed in duplicate and a standardized white and red wine production method was followed, respectively Residual sugar analyses were performed on all wines to confirm the end of fermentation. After bottling, the wines were stored at 15º C until sensory evaluation and chemical analyses were completed.

Results and discussion

The use of non-*Saccharomyces* yeast in wine production is in its infancy compared to *S. cerevisiae.* While more than 200 commercial *S. cerevisiae* yeasts are available to wine industries world-wide, there are only a few commercial *T. delbrueckii* strains. These strains are all recommended for use as co-inoculants with *S. cerevisiae.* Although the number of commercial *T. delbrueckii* strains will never reach that of *S. cerevisiae*, there is undoubtedly scope for *T. delbrueckii* strains with improved oenological characteristics.

Small-scale Chenin blanc vilifications

All the co-inoculated *T. delbrueckii* Chenin blanc fermentations were completed within 14 days in comparison to the 32 days for the single *T. delbrueckii* inoculant fermentations. The single inoculated fermentations also had a notably longer lag phase than the co-inoculated fermentations. This was expected, as it is known that *T. delbrueckii* yeasts are slower fermenters, and can take longer than *S. cerevisiae* to acclimatize to the conditions of the grape must. All the wines, with the exception of one, fermented to dryness (sugar ≤ 5 g/L in accordance with South African legislation). In the *T. delbrueckii/S. cerevisiae* co-inoculated fermentations, the *S. cerevisiae* component would have played a role in completing the fermentation, while in the *T. delbrueckii* single inoculant fermentations a possible background *S. cerevisiae* yeast population, naturally present in the juice, could also have played a role.

Chemical and sensory analyses showed a *T. delbrueckii* imprint on the wines. The single inoculant wines had slightly higher glycerol levels than the co-inoculated wines and the *S. cerevisiae* reference fermentation. The higher glycerol levels can contribute to improved mouth-feel, sweetness and complexity in wines. Total SO_2 levels for the single inoculant fermentations were higher than those of the co-inoculated fermentations and the *S. cerevisiae* reference fermentation. However, with one exception, all fell well within the legal limits for South African wine standards (< 160 mg/L; South African Liquor Products Act 60 of 1989). This undesirable trait of increased SO_2 levels has previously been reported for single *T. delbrueckii* fermentations, and can negatively affect wine quality and inhibit subsequent malolactic fermentation with SO_2 sensitive lactic acid bacteria. The volatile acidity produced in the single inoculant and co-inoculated fermentations were similar and slightly higher than the *S. cerevisiae* reference fermentation, respectively. However, all the values fell within the legal limit for South African wines (≤ 1.2 g/L). The higher values were not expected, as it has been mostly reported that *T. delbrueckii* strains generally produce lower levels of volatile acidity than *S. cerevisiae.*

Analyses of the sensory data showed that single inoculant wines produced with two specific *T. delbrueckii* isolates resulted in wines with desirable attributes. Wines from the first strain often scored significantly higher in terms of the “guava” aroma note, “body” (mouth-feel) and “general quality”. Wines produced with the second *T. delbrueckii* strain also scored high and were often judged to be significantly better than the other wines in terms of the “fruity and fermentation character” and “general quality”. These results corresponded with the findings of previous studies that found that non-*Saccharomyces* yeasts contributed to mouth-feel and improved the quality of wines. The reference *S. cerevisiae* wine had amongst the lowest sensory scores of all the wines.

Small-scale Pinotage vilifications

The Pinotage fermentations were all completed within five days. In contrast to the Chenin blanc fermentations, all the *T. delbrueckii* single inoculated treatments fermented dry (under 4 g/L residual sugar). However, the contribution by the *S. cerevisiae* natural population cannot be discounted as the red wine production process is more susceptible to contamination by resident *S. cerevisiae* cellar populations. In the Pinotage wines, there was also no indication that the *T. delbrueckii* contributed to higher total SO_2 levels. Overall, the sensory results showed no notable differences between the wines. This therefore reinforces the observation that *T. delbrueckii* may have been out-dominated by the growth of the natural *S. cerevisiae* background resident population and so no *T. delbrueckii* imprint is evident.

Conclusions

The various co-inoculation treatments all led to dry wines, and in the Chenin blanc, a *T. delbrueckii* chemical and sensory imprint was evident. A similar imprint was not observed in the Pinotage wines. From the results obtained, two

South African *T. delbrueckii* isolates showed potential as single inoculant yeasts for commercial Chenin blanc production.

Summary
T. delbrueckii and *S. cerevisiae* yeast were used for the production of Chenin blanc and Pinotage wines at 15 and 24º C, respectively. The *T. delbrueckii* yeasts were used either as single inoculants, or as co-inoculants with the commercial *S. cerevisiae* yeast. The *S. cerevisiae* yeast was added at zero, 24 or 48 hours after the *T. delbrueckii* strain. Results for the Chenin blanc trial showed that two of the South African *T. delbrueckii* yeasts had a positive effect on the wine's chemical and sensory profile. These wines were of a higher quality than those of the *S. cerevisiae* reference treatment. Results of the Pinotage vilifications were less conclusive and no distinctive *T. delbrueckii* effect could be found in the chemical and sensory data.

American wine society

2020 National Amateur Wine Competition

Details at:
americanwinesociety.org

DEADLINES:

- Paperwork can be submitted now. Deadline is October 15, 2020
- Delivery of wine is accepted from September 1st and deadline October 22nd to: Effingham Manor Winery

14325 Trotters Ridge Pl Nokesville, VA 20181

COMPETITION INQUIRIES: Vincent Williams (618-363-3015) awc@americanwinesociety.org

ETS LABORATORIES enartis

ETS and Enartis Combine Analytical Services ETS Laboratories and Enartis agreed to combine their analytical service offerings. Enartis will continue to support wineries worldwide with enological products and technical support, while winemakers who previously worked with Vinquiry for analysis will have access to the analytical capabilities and expertise ETS Laboratories has provided for 42 years. "

Concrete Egg Fermenters: Classic or Cracked Fad?

Concrete egg-shaped fermenters: One of the newest trends in innovative wine-making? Or a doomed fad destined to go the way of the mullet?

Maybe you've seen one of these humpty dumptyesque looking objects brooding in the corner of your favorite tasting room or wine cave and thought to yourself:

"what the heck is that?"

Let's explore why some are so egg-cited about this ancient trend.

Who Laid the First Concrete Egg?

Neither new nor a trend, egg-shaped fermenters come to us via a very long and ancient road. It's a road that travels well past the advent of the oak wine barrel, and beyond biblical times.

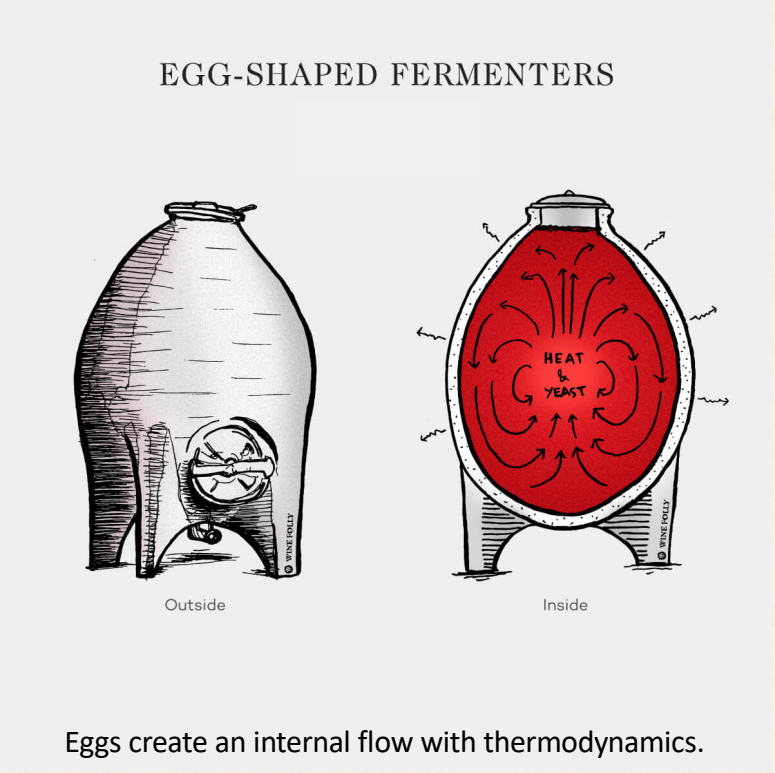
While consensus on the magic of the egg fermenter remains scrambled, these vessels have been around for a long time. How long, you ask? Eight thousand years ago (aka The Stone Age!) according to the Proceedings of the National Academy of Sciences.

But where was this tradition started?

Origins in the Birthplace of Wine

Archaeologists in Georgia found the ancient remains of large, earthen vessels containing the remnants of wine inside. Radiocarbon dating and chemical analysis of the residue confirmed these findings.

Clay grape designs on the outside of the vessel gave researchers more clues about their use.



Eggs create an internal flow with thermodynamics.

Clay grape designs on the outside of the vessel gave researchers more clues about their use

These egg-shaped vessels, known as qvevri, are still common in the area today. Similar oblong vessels called amphora began appearing in Greece and Rome 3000 years ago. They were the primary means of transporting wine in the ancient world.

Traditionally, qvevri are buried in the ground and sealed shut with mud.

From Qvevri to Barrel

It's not difficult to imagine the problems involved with transporting these large, heavy vessels all over the ancient world. This was before the advent of the paved road or Goodyear tires.

The Romans decided to adopt the Gallic barbarians' method of storing and transporting wine via the less fragile oak barrel.

FUN FACT:

Historians believe the Celts invented the wooden barrel somewhere in Gaul (Part of modern-day France and Germany).

By the 300's BC, the barrel began its 2,000-year-long career as the wine storage container of choice. The humble amphora and qvevri, however, were not forgotten.

From Ancient Idea to New Trend

In 2001, Michel Chapoutier, a pioneer in biodynamic viticulture, collaborated with the French company Nomblot. Nomblot has specialized in the manufacturing of concrete wine containers since the 1920s.

Together they produced the first modern egg-shaped wine fermenter. The first since the Georgian winemakers who are still using the qvevri of 8000 years ago, that is.

As a result of their collaboration, a renaissance of sorts is occurring within modern winemaking. Countless winemakers have returned to the ancient oblong shape to ferment and age wines.

The many shapes of the original amphorae.

What's So Special About Concrete Egg Fermenters?

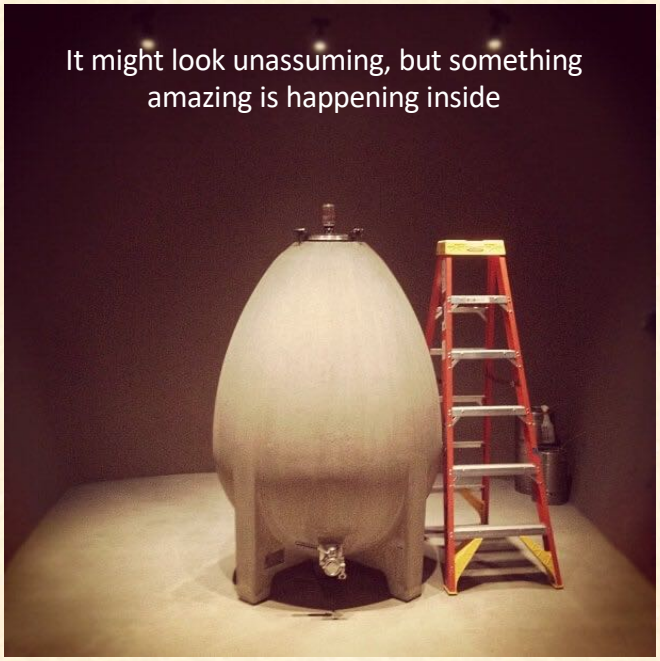
Like most "new" things, claims for and against can be loud and passionate. It is sometimes hard to determine where reality begins and salesmanship ends.

While their effects are not yet proven by science, egg fermenters could offer winemakers unique options for affecting the taste and structure of wines.

These are options not available with the more traditional oak and stainless steel methods of fermentation and aging. Here are a few of the most notable claims for the "magic" of the ovoid fermenters.

The "Vortex"(Thermodynamics for Dummies)

Some winemakers believe the egg fermenter's shape, smooth internal surface, and lack of corners promotes a natural current or "vortex" within the fermenter.



It might look unassuming, but something amazing is happening inside

One theory states that as active yeast ferments wine, it becomes lighter and rises to the top of the fermenter. Cooler wine then sinks to the bottom, resulting in the formation of a continuous convection current.

This "vortex" current causes lees (spent yeast) to remain in suspension throughout fermentation, thus helping to build texture and flavor in wines. For more information on lees, check out "What Are Wine Lees?"

"Fermenting wines are commonly stirred (battonage) once a week in barrels, twice a week in stainless steel, and once a month in egg fermenters."

Egg shaped fermenters at the Okanagan Crush Pad winery in British Columbia

The Need to Breathe

But what if a winemaker wished to use the traditional oak wine barrel's natural ability to breathe, allowing low-level aeration to occur, but did not want the associated toasty spiced nuances imparted by oak?

Enter the concrete egg fermenter: though they're not always made of concrete.

Semi-porous materials such as concrete, ceramic, terracotta, and permeable plastic, are most often used to make egg-shaped fermenters. These building materials offer a way to expose the wine to small levels of aeration.

Exposing wines to low levels of oxygen, wines begin to age gradually, developing more flavor, softening tannins, and improving mouthfeel. Wines aged in the inert and airless environment of stainless steel take much longer to achieve similar levels of aging.

"New winemaking technology has developed a micro-oxygenation process used to introduce oxygen into the aging of wines in stainless steel. Think of an aquarium pump but without the fish."

Don't Call it a Comeback

It is still unclear whether the egg will withstand the test of time or disappear again like the amphora. But if you love the winemaking traditions of the Caucasus, you might argue that the egg fermenter never left.
Like most questions when it comes to wine, the answer is most likely to be a matter of taste. So comparing the fermentation methods of different wineries is the best way to determine if the egg is worth the squeeze. However, the answer to one penetrating question is clear. What came first, the barrel or the egg? Clearly the egg.

ETS and Enartis Combine Analytical Services ETS Laboratories and Enartis agreed to combine their analytical service offerings. Enartis will continue to support wineries worldwide with enological products and technical support, while winemakers who previously worked with Vinquiry for analysis will have access to the analytical capabilities and expertise ETS Laboratories has provided for 42 years. "After 11 years of direct presence in North America, Enartis is entrusting its analytical services business to a very capable partner," Esseco Group President and principal shareholder Piero Nulli said. "Enartis now wishes to concentrate its resources on its core business of oenological products, further strengthening its position of leadership and innovation."

Portland Winemakers Club
Leadership Team – 2020

President: **Bill Brown** bbgoldieguy@gmail.com
- Establish leadership team
- Assure that objectives for the year are met
- Set up agenda and run meetings

Treasurer: **Barb Thomson** bt.grapevine@frontier.com
- Collect dues and fees, update membership list with secretary
- Pay bills

Secretary: **Ken Stinger** kbstinger@frontier.com
- Communicate regularly about club activities and issues
- Monthly newsletter
- Keep updated list of members, name tags and other data

Chair of Education/Speakers: **Rufus Knapp** Rufus.Knapp@fei.com
- Arrange for speakers & educational content for our meetings

Chair for Tastings: **Paul Sowray & Barb Stinger** davids1898@aol.com
- Conduct club tastings kbstinger@frontier.com
- Review and improve club tasting procedures

Chair of Winery/Vineyard Tours: **Damon Lopez.** dlopez5011@yahoo.com
- Select wineries, vineyards etc. to visit
- Arrange tours
- Cover logistics (food and money)

Chair of Group Purchases: **Bob Hatt** bobhatt2000@yahoo.com
- Makes the arrangements to purchase, collect, and distribute
- Grape purchases
- Supplies – These should be passed to the President for distribution

Chair of Competitions: **Paul Boyechko** labmanpaul@hotmail.com
- Encourage club participation in all amateur competitions available. Make information known through Newsletter, e-mail and Facebook.

Chairs for Social Events **: Marilyn Brown & Mindy Bush** brown.marilynjean@gmail.com
* Gala / Picnic / parties mindybush@hotmail.com

Web Design Editor: **Alice Bonham** alice@alicedesigns.org