



Portland Winemakers Club

May 2022

“Bill’s Meanderings”

Monthly Events

January 19th, 2022

To be determined

VIRTUAL MEETING

February 16th, 2022

To be determined

VIRTUAL MEETING

March 16th, 2022

To be determined

VIRTUAL MEETING

April 20th, 2022

In person at Aloha Grange

May 18th, 2022

Aloha Grange, Tasting & judging, member produced Bordeaux Reds

June 15th, 2022

Aloha Grange, possible speaker

July 20th, 2022, no meeting

July 23rd, 2022, Annual

Picnic, \$10 ea. Fee, Craig & Mindy Bush

August 17th, 2022

Aloha Grange, Tasting & judging, member produced All Whites, Rose' & sparkling

September 21st, 2022

Aloha Grange, Tasting & judging, member produced Other Reds

October 19th, 2022

Aloha Grange, Tasting & judging, member produced Pinot Noir

November 16th, 2022

Aloha Grange, Crush Talk

December 28th, 2022

Aloha Grange, Elections, Planning for Next Year



Damaged buds with secondary buds started, about three weeks behind when the growth catches up to where it was.

We're back at it.

So, we finally got back to in person meetings and from the comments I received I think all were encouraged that things went well and we're looking forward to regular business. Our next meeting scheduled for May 18th will be our first members wine blind tasting event, we will be tasting Bordeaux reds. That's the only tasting we need to catch up on this year and we will continue our monthly meetings as regularly scheduled in the past.

On that vein of news and scheduling, I'm happy to announce we will be having our Wine Club Summer Picnic on Saturday, July 23rd, again hosted by long time club members, Craig and Mindy Bush. Details to come.

Lastly, I'm gonna talk about the weather again. As some of you may know we had a freeze on April 14th just as a lot of vines were starting to bud. At this point with this cool spring the buds that were damaged have yet to recover which could lead to a late fall harvest and probably a low yield crop. Another reason to get your orders in for fruit earlier and expect some shortages, lack of availability, and price increases.

Bill Brown



Upcoming events / Save the date

The next PWC meeting is scheduled for May 18th. Baring any negative developments regarding COVID-19, this will be an in-person meeting at the Aloha Grange starting at 7:00 pm. **This will be a blind tasting & judging of member produced Red Bordeaux varietals & Bordeaux blends. Red Bordeaux varietals are Cabernet Sauvignon, Merlot, Cabernet Franc, Petit Verdot, Malbec, Carmenere or any blend containing 2 or more of these 6 grapes. Please bring two (2) bottles of each wine to be tasted.**

PWC Website: <https://portlandwinemakersclub.com/>

Notes from the April Meeting; 4-20-22

Present: 21

- Secretary: contact Brenda Welch from the Grange.
 - 1 - We need to know the rental fee.
 - 2 – For the November meeting, if needed, can we start the meeting 30 minutes early &/or close the meeting at 9:30?
 - 3 – Forgot to forward Grape Purchase Plan request. Will do right away.
- Treasurer:
 - 1 -Passed out participation waivers for signing.
 - 2 – Asked for dues to be paid.
 - 3 – Pitched sales for corkscrews & GoVino glasses.
- Competitions, No information.
- Tours, No information.
- Speakers, President has a possible speaker for the June meeting.
- Events, Craig & Mindy Bush has again offered their home for the annual picnic on July 23rd. Probably early afternoon.
- Other:
 - 1 – Late freeze affecting some grape buds in OR & WA will probably reduce grape yields.
 - 2 – Question: Is there interest among members for having a vine grafting workshop?

The meeting was paused mid-way through so members could re-introduce themselves and sample some of the member made wines they have been missing. Nothing has changed, member made wines are the **BEST!**



I WONDER HOW MANY VAMPIRES
HAVE BEEN RUN OVER BY PEOPLE
WHO BACKUP JUST USING
THEIR MIRRORS



References

Here is a list of hobby winemaking manuals and other materials in the Secretary's file. They are available for downloading by e-mail or via an internet transfer service. All are PDF format, E-mail Ken Stinger at kbstinger@frontier.com

- Scott Labs 2021 Winemaking Handbook - 21 mb - 119 pages
- Scott Labs 2018 Cider Handbook - 24 mb - 49 pages
- Scott Labs 2018-2019 Sparkling Handbook - 8 mb - 58 pages
- Anchor 2021 – 2022 Enology Harvest Guide 15.7 MB - 16 pages
- A guide to Fining Wine, WA State University - 314 kb - 10 pages
- Barrel Care Procedures - 100 kb - 2 pages
- Enartis Handbook - 4.8 mb - 108 pages
- A Review Of Méthode Champenoise Production - 570 kb – 69 pages
- Sacramento Winemakers Winemaking Manual - 300 kb - 34 pages
- Sparkling Wine brief instructions - 20 kb - 3 pages
- The Home Winemakers Manual - Lum Eisenman - 14 mb - 178 pages
- MoreWine Guide to red winemaking - 1 mb - 74 pages
- MoreWine Guide to white Winemaking - 985 kb - 92 pages
- MoreWine Yeast and grape pairing - 258 kb - 9 pages
- Wine Flavors, Faults & Taints – 600 kb, 11 pages
- Daniel Pambianchi wine calculator set – 10 calculators, 13.5 mb



Radiant Sparkling Wine Company

Mobile bottler offers Oregon bubbles producers equipment, ease and expertise

BEFORE ANDREW DAVIS FOUNDED Radiant Sparkling Wine Company, only a few Oregon winemakers dared produce sparkling wine. “Quality sparkling wine production is very complicated and expensive compared to still wine production,” said Rollin Soles of ROCO Winery, the Willamette Valley sparkling wine producer who founded Argyle Winery in 1987. “Some of the highest bars to entry are the expertise required to cultivate a successful tirage/second fermentation program for riddling, disgorging with well-calculated dosing and then all the packaging. Bottling, riddling, disgorging and labeling require very specialized and expensive equipment to do it right!”

Satisfying a Need To fill this gap in specialized infrastructure, sans the costly capital outlay, Davis founded Radiant Sparkling Wine Company in 2013. Funded, in part, with seed money from Rollin and Corby Soles, Davis purchased a sleek mobile bottling unit, riddling gyropalette and assembly line for disgorging, topping off, corking, wire caging (called a “muselet,” the French term for “muzzle”) and labeling. He houses it all in a no-frills, 7,100-square-foot warehouse in downtown McMinnville.

“Radiant was born of a desire to see more sparkling wines coming from this perfect region for sparkling,” Davis explained. “Radiant represents an opportunity to get the expertise, the best possible machinery and a pool of trained experts to help facilitate these smaller sparkling wine lots and ensure that no mistakes will be made in their production.” Initially, Davis started with a handful of select clients. Today, he and wife Isabelle Meunier (both own the company outright) count more than 40 top-tier sparkling wine producers on their roster, including Sokol Blosser Winery, Gran Moraine, Pashey by Trisaetum, Corollary Wines and ROCO Winery. Radiant's clients are notably two distinct types. “Most of them are the full cradle-to-grave-type package, where we're working with wineries from the very beginning through to finished products,” said Davis. The other category prefers making the base wines, bottling and finishing secondary fermentation themselves. “Most of the wineries we work with feel comfortable making their own base wine because it's very similar to just making a dry white wine, but picking parameters are a little different.”³ “Radiant takes most of the difficulty out of méthode Champenoise production while leaving enough ‘space’ for each winery to create their own style,” summed up Soles.

Non-Conventional Yeast: Tailor-made solutions for new challenges

Written by Federico Tondini

Wine is a natural alcoholic beverage that has accompanied mankind from the dawn of history. It has been called “the nectar of the gods,” however, it does not require a miracle but only human intervention to avoid turning to vinegar, the original outcome of naturally fermented grapes. The resulting wine quality is in fact determined by many elements including the grape variety and ripeness, but it is the winemaking process that shapes the microbial metabolism and has the most profound effects. *Saccharomyces cerevisiae* is the yeast that is primarily responsible for wine’s alcoholic fermentation, thanks to a combination of several “enological” traits: Rapid and complete sugar consumption, ethanol production, transformation of aromatic precursors, as well as its tolerance to initial and final harsh conditions. The use of a selected *S. cerevisiae* starter culture in the so-called inoculated fermentation has become a common oenological practice to ensure a fast and complete fermentation and reduce the risk of deterioration in wine quality.

Alongside it, many other yeast species are found in wine fermentation. Their environmental habitat are the berries or the cellar equipment surfaces before they are carried over to the must during crushing of the grapes. They are commonly referred to as non-*Saccharomyces* yeast, and play multiple roles during fermentation, depending on their ability to grow and metabolic activity. Many non-*Saccharomyces* may lead to serious wine deterioration and have been classified as spoilage: *Brettanomyces bruxellensis* for its production of unpleasant aromas, such as ethyl-phenols (“horse sweat” taint); *Hanseniaspora uvarum* for producing high levels of ethyl acetate and acetic acid (vinegar) before and during initial fermentation steps; and *Zygosaccharomyces bailii*, which may proliferate in bottled wines producing visible sediments or turbidity. Others instead accompany the ethanol fermentation with the production of hundreds of secondary metabolites like organic acids, higher alcohols, and esters. These may positively impact the winemaking process, maintaining the desirable natural variability of wine, the so-called terroir expression, and highlighting mouthfeel, aroma, and flavor complexity.



While many winemakers use non-*Saccharomyces* in their wine production, their commercial availability has been very limited. That is changing. Photo by Dominick Profaci

In attempts to exploit these advantages, an innovative alternative to common fermentation adding only *S. cerevisiae* has been proposed, which is referred to as the mixed culture or sequential fermentation. The non-*Saccharomyces* yeast should be inoculated first, and 2–3 days later, when the fermentation has reached 4–8% alcohol, a *Saccharomyces* yeast is inoculated. In this way, non-*Saccharomyces* yeasts, characterized by a limited sugar consumption can contribute to the chemical and sensory properties of the wine at the beginning of fermentation, before the more competitive *Saccharomyces* yeasts ensure fermentation completion. This scheme of a sequential inoculation mimics what happens in a wild ferment, bringing the best of the two

techniques: The complexity of successful wild fermentation with the safety and technical security of a controlled, alcoholic fermentation with selected strains.

Despite the numerous reports on their positive contribution to aroma and flavor diversity, only a handful of non-*Saccharomyces* species have made it to the market and are starting to be widely adopted for wine production: *Torulaspora delbrueckii*, *Metschnikowia pulcherrima*, *Lachancea thermotolerans*, and to a lesser extent *Schizosaccharomyces pombe* and *Pichia kluyveri*. Let's take a closer look at each:

Torulaspora delbrueckii

T. delbrueckii improves fermentation quality parameters such as wine complexity and aromatic spectrum thanks to specific fruity esters (β -phenyl ethanol, floral notes), while its powerful β -lyase activity boosts varietal characteristics (terpenes and thiols). Also, the mouthfeel is positively influenced thanks to a higher release of mannoproteins. Based on these traits, the strain is particularly suited for Chardonnay, Chenin Blanc, Sauvignon Blanc, Pinot Noir, Merlot, and Cabernet Franc. But it stands out for the fermentation of Sauvignon Blanc. The first commercial *T. delbrueckii* strains that entered the active dry yeast market are Prelude (Chr. Hansen), Biodiva (Lallemand), Zymaflore® Alpha (Laffort), Vinifer NS TD (Agrovin), Levulia Torula (AEB) and EnartisFerm QTau (Enartis).

Metschnikowia pulcherrima

Bioprotection is one of the new alternative methods to reduce the use of sulfur, a major challenge for the wine industry. This method consists in adding microorganisms on grape must before fermentation to limit indigenous spoilage populations of fungi and bacteria. *M. pulcherrima* can be used as one of these biological control agents thanks to its ability to produce a natural compound, namely pulcherrimin. This insoluble red pigment has antimicrobial activity, binding and depleting iron in the medium through precipitation. *Metschnikowia pulcherrima* strain is inoculated on the grapes after picking, effectively limiting the growth of spoilage microbiota and protecting must from oxygen, followed by *S. cerevisiae* when the winemaking process is ready to start.

M. pulcherrima could also help with another challenge for grapes grown in warmer climates; the undesirably high ethanol levels in wines. Delayed sequential inoculation of *S. cerevisiae*, in which *M. pulcherrima* is left fermenting for a couple of days, has shown a promising reduction in final ethanol concentration by 0.7–1.6% and high extracellular enzyme production.

The strains commercially available are Primaflora and Levulia pulcherrima (AEB), Flavia and Gaia* (Lallemand), Zymaflore® Egide (Laffort), Excellence B-Nature (Lamothe -Abiet), and AWRI Obsession (Maurivin).

**Metschnikowia frutticola*

Lachancea thermotolerans

Driven by climate change the grape ripening is accelerated and grape must is becoming characterized by higher sugar content, higher pH, and lower acidity, if grapes are not perfectly timed for harvest. Consequently, wines often contain overly high ethanol levels but lack acidity. Winemakers can fix these inadequacies through external inputs at the cost of quality. To reduce the detrimental effects for wine of these interventions, it is possible to use a yeast with acidifying and lower-ethanol yielding potential: *L. thermotolerans*. Its hallmark is the L-lactic acid production (from 1.8 to 12 g/L) from sugars, alongside alcoholic fermentation, thanks to lactic acid dehydrogenase enzyme (LDH). Sequential fermentation results in 0.3–0.5

pH units lower, higher TA (titratable acidity), and about 0.6–1% v/v lower ethanol concentrations.

Commercially available *Lachancea thermotolerans* are Laktia (Lallemand), Concerto (Chr. Hansen), Octave (Chr. Hansen), EnartisFerm QK (Enartis), Excellence X'Fresh (Lamothe-Abiet), and LEVULIA Alcomeno (AEB).

Schizosaccharomyces pombe

Schizosaccharomyces yeasts can be used to solve the opposite problems encountered in the wine industry: High malic acid content. *S. pombe* yeast is a good alternative to chemical deacidification or malolactic fermentation when the conditions are too harsh for the bacteria. The yeast is added to the juice at the beginning of the alcoholic fermentation and thanks to its malic dehydrogenase activity, converts malic acid to ethanol and CO₂ (malo-alcoholic fermentation) alongside alcoholic fermentation. Although *Schizosaccharomyces* have shown to possess the ability to finish fermentation and improve wine quality by its own, a sequential inoculum of *S. cerevisiae* is preferred. The only commercial strain of *Schizosaccharomyces pombe* currently available is the encapsulated yeast PROMALIC (Proenol).

Pichia kluyveri

P. kluyveri stands out mainly due to its contribution to wine aroma and mouthfeel. The metabolism increases volatile molecules such as esters and varietal thiols, which have potent fruity notes, described as passion fruit and tropical in whites, while in reds are perceived as red fruit and blackcurrant aroma. Since *P. kluyveri* is unable to ferment fructose, it is recommended to pair it with a fructophilic *S. cerevisiae* in order to avoid sluggish fermentation. *P. kluyveri* is particularly suitable for white and rosé wines, and FROOTZEN (Chr. Hansen) is the only strain available in the form of active frozen yeast.

Conclusion

Traditionally, non-*Saccharomyces* yeasts have been considered as contaminants in many winemaking circles, but this classification has been revisited in recent years. Not only do certain species appear to be a valuable tool to optimize wine quality, they can also bring a distinctive touch to wines compared to that of only a *S. cerevisiae* fermentation. While these strains are found naturally occurring, inoculating in a controlled and sequential manner can maximize the attributes. These yeasts also contain great potential to mitigate effects of climate change on the quality of wine. Non-*Saccharomyces* will help winemakers more and more in the years to come to differentiate their production from another's with increased creative options.

Resources

Benito, S. (2018). The impact of *Torulasporea delbrueckii* yeast in winemaking. Applied Microbiology and Biotechnology.

Benito S. (2019) The impacts of *Schizosaccharomyces* on winemaking. Appl Microbiol Biotechnol.

Hranilovic, A., et. al (2017). Chemical and sensory profiling of Shiraz wines co-fermented with commercial non-*Saccharomyces* inocula. Australian Journal of Grape and Wine Research.

Hranilovic, A., et al. (2020) Lower-alcohol wines produced by *Metschnikowia pulcherrima* and *Saccharomyces cerevisiae* co-fermentations: The effect of sequential inoculation timing." International Journal of Food Microbiology.

Hranilovic, A., et al. (2021). Impact of *Lachancea thermotolerans* on chemical composition and sensory profiles of Merlot wines. Food Chemistry.

Simonin, Scott, et al. (2020) Bio-protection as an alternative to sulphites: impact on chemical

and microbial characteristics of red wines. *Frontiers in microbiology*.
Vejarano, Ricardo, and Angie Gil-Calderón (2021) Commercially available non-*Saccharomyces* yeasts for winemaking: Current market, advantages over *Saccharomyces*, biocompatibility, and safety. Fermentation.



Fruit Port

Written by Joe O'Neal

Port wines are steeped in history and date back to sometime in the 17th century. It is said that a partnership between the British and Portugal and a shortage of wine from France were some of the milestones that led to the production of the first port wines. The adding of brandy — now termed fortification — was done to preserve the wines for shipment to England. The word port comes from the name of the city Oporto situated in Portugal's Douro Valley. The only “true” ports come from this region. However,



port-style wines are fermented in many areas of the world now and made in different styles.

As an avid winemaker I have made ports many times and I actually grow a higher acid grape in my vineyard for just this purpose. Several years ago, after giving away most of my reserve stock that was several years old (and of course consuming my own share), I found that my cellar was becoming quite empty. It was mid winter and would be quite some time before I could think of picking any grapes, so I began thinking of what fruits might be available locally that I could experiment with in making a fortified wine.

Mind you I didn't go into this blind. I had tasted a fortified wine called Framboise, vinted by Bonnie Doon Vineyards. I thought this wine was simply fantastic and ended up drinking the entire half bottle all to myself as I bounced about happily. At the time I had a good source through an affiliate for pure raspberry juice and so my venture to create a fruit port style wine was under way.

The principle for making a port-style wine — whether using grapes, fruit or juice — is pretty much the same. Here's the basic procedure.

Fruit or juice that is high in sugar content will be desirable. For lower sugar juices, sugar may be added to achieve an adequate level of sugar in the must. Acid levels must also be sufficient to support the finished sugar content and dilution of the base wine.

- Use a strong yeast and get a good starter going before inoculating, this is due to the high sugar environment and to ensure a healthy colonization in the must.

- Monitor fermentation closely, keeping the must cool for added fruitiness. When the sugar level drops to the desired level — generally between 6 and 10 °Brix — stop fermentation by adding brandy or another high-alcohol beverage.

- Clear and age your port wine.

Enter Everclear

One main difference between a grape port and a fruit port is the fortifying agent. Most ports

made from grapes are fortified with brandy, which is typically 80 proof (40% alcohol). For your fruit port, you will use a grain alcohol known as Everclear. Everclear is a grain alcohol sold in 190 proof and 151 proof versions. The 190 proof version contains 95% ethanol by volume; the 151 proof version is 75.5%. (In any alcoholic beverage, proof is twice the alcohol percentage.) Because of its high alcoholic strength, it is illegal to purchase in some U.S. states. Vodka (80 proof, 40% alcohol) can also be used, but you will need to add much more of it given its lower alcoholic strength compared to Everclear. Although high alcohol rums — Bacardi 151 proof rum, for example — are available, you should not use them as they will add the flavor of rum to your fruit port.

Everclear is a very neutral spirit that will not over power or mask the fruit flavors and aromas you are trying to achieve in your fruit style port wine. Because it has a much higher alcohol content than brandy, you will not need to use as much Everclear to your fruit port to achieve the desired alcohol level in your finished port. In fact, you will need an amount less than half the amount of brandy added to a traditional port.



Other options

It's worth noting that some wineries may make a fruit wine and then distill this wine to get a very flavorful fortifying agent to add to their fermenting ports to stop the fermentation. (Bonny Doon's Framboise — according to its label — is fortified with "grape neutral spirits.") Of course, distillation is illegal for most of us, so we will have to stick with adding the spirits we can purchase.

Ports will vary in alcohol content, but I generally like to shoot for a level between 18 and 20% alcohol. The result will be a sweet, high-alcohol wine that is simply a wonderful sipping beverage and certainly fairs well in the local cigar bar. A well-made fruit port's flavor comes almost entirely from the base wine. As such, it displays fresh fruit flavor backed up by a substantial amount of sweetness.



Begin making your fruit port by making the fruit wine of your choice. Pick a recipe for a full-flavored fruit wine as you will want to have as much fruit flavor in your port as possible to accompany the sweetness. (The raspberry wine recipe on page 33 in the June-July 2004 issue will work well, if you include the alterations discussed below.) Most fruit wines begin around 22 °Brix and this is fine for the base wine for your fruit port.

Plan for the Dilution

As the wine is going to be diluted with the fortifying agent, the acidity and fruit flavors will be diminished somewhat. You should compensate

for this by adding proportionally more fruit and increasing the acidity of your base wine.

If you plan on using 151 proof Everclear, use at least 24% more fruit (if possible) and shoot for an acidity level 24% higher than the standard target for that style of fruit wine; shoot for 18% more fruit and acidity if you will be using 190 proof Everclear. From a procedural standpoint, you should also plan ahead and ferment in a container with enough extra volume to accept the fortification dosage.

Monitor your fermentation carefully and be prepared to stop it when your hydrometer reads 10 °Brix (a specific gravity of 1.040). If your must initially measured 22.5 °Brix (SG 1.090), you will now have a sweet wine with 6.5% alcohol.

Stop, in the Name of Port

Adding alcohol will stop the fermentation of your base fruit wine, leaving the unfermented sugars to sweeten your fruit port. If you are using 151 proof Everclear, add 1.2 gallons (4.5 L) of it to your 5-gallon batch of fruit wine. For 190 proof Everclear, add 0.9 gallons (3.4 L). (If you use vodka, you will need to add 3.3 gallons (12.5 L) to your 5-gallon (19-L) batch!)

This alcohol addition will yield a fruit port with 20% alcohol. Stir well so the alcohol mixes rather than floats on top of the wine. A common tool used to figure out the amount of alcohol to add (regardless of proof) to hit any target alcohol level in a port-style wine is the Pearson square. Knowing how to use this mathematical tool will help any winemaker formulate their own fortified wines.

Stabilization

Alcohol will stop any active fermentation and stabilize the wine. You may wish to add up to 25 ppm sulfur dioxide (SO₂), from potassium metabisulfite powder or Campden tablets, but this is not strictly necessary. You should not add any sorbate — as is common in fruit wine production — to stabilize the wine.

Quick Aging, Small Bottles

Once your fruit port is blended, let it age for four to six months. Rack every two months to separate the wine from the lees. Adding a small amount of metabisulfite to maintain a preventative level of SO₂ is an option. You probably won't need any fining agents as the alcohol should help the wine clear on its own.

You will likely want to bottle your fruit port in traditional port bottles or other 375 mL bottles. Many ports — and port-style wines — are closed with a short cork with a plastic stopper. These closures must be inserted by hand. Fruit wines are usually quick-aging wines, meant to be drunk young. With the added alcohol, however, fruit ports have the potential to age for a few years.



Fun facts about Bordeaux

89% of all wine made in Bordeaux is red.

53 distinct wine growing areas make up Bordeaux

The region is 297,000 acres in size (six times the size of Napa Valley!)

Every second, 20 bottles of Bordeaux wine are sold around the world.

Grapes have been grown there for almost 2,000 years.

Cabernet Sauvignon originated there sometime during the 1700s

The most planted grape variety in Bordeaux is Merlot.

Portland Winemakers Club Leadership Team – 2022

President: **Bill Brown** bbgoldieguy@gmail.com

- Establish the leadership team
 - Assure that objectives for the year are met
 - Set up agenda and run the meetings

Treasurer: **Barb Thomson / Jim Ourada** bt.grapevine@frontier.com
jmourada57@gmail.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: (need a volunteer)

- Arrange for speakers & educational content for our meetings

Chair for Tastings: **Brian Bowles / Barb Stinger** bowles97229@gmail.com

- Conduct club tastings kbstinger@frontier.com
- Review and improve club tasting procedures

Chair of Winery / Vineyard Tours: **Andy Mocny.** acmocny@gmail.com

- Select wineries, vineyards etc. to visit
- Arrange tours
- Cover logistics (food and money)

Chair of Group Purchases: **Bob Hatt / Al Glasby.** bobhatt2000@yahoo.com
alglasby@gmail.com

- Grape purchases, Makes the arrangements to purchase, collect, and distribute
- Supplies – These should be passed to the President or Secretary for distribution.

Chair of Competitions: **Michael Harvey** mharvey767@gmail.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
mindybush@hotmail.com

* Gala / Picnic / parties

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