

AMATEUR WINEMAKERS AND BREWERS CLUB OF ADELAIDE INC.



PATRON: KAAREN PALMER

Next Meeting: **Tuesday May 2nd 2023 Newsletter
AGM Edition**



When: Meetings held on the first Tuesday of each month from **8.00 pm start – 10:30pm finish (no early arrivals)**
Where: Clarence Park Community Centre, corner of East Ave & Canterbury Terrace, Black Forest.
How: Check out our website Adelaide Ferment: <http://awbca.org.au> for our Calendar and photos and lots of information

Please bring your wines/beers to share for others to taste and comment and discuss with others how you made them, problems you had, or where you purchased them from and price you paid etc...a great chance to chat about anything wine and beer (and food too if you wish).
Join us to taste our beers and wines and enjoy them with a small supper

Competitions & Supper this Month – May 2023

Wine Competition:

Aged Dry Red Wines (4+ Years Old)

Beer Competition:

Ales (no Dark Ales)

Please email the wine convener; 2 days prior to the event with details of your entry so a speedy start to judging can begin.

May is Cake-off Competition month for Supper!

Think you can make cake? Members are invited to make a Cake and have it judged!

Rule #1 – it's gotta be homemade

Supper: Cake-Off - Leftovers



Get your recipes ready....

Competition Winners for April 2023

Wine Results: Emerging Varieties (Red Wines);

Judge: Dan Traucki: 15 Entries

1st Michael Lineage Syndicate – Score 18.5 Points – 2022 Montepulciano (Aldinga);

2nd Prospect Hill Syndicate – Score 17.5 Points – 2021 Petit Verdot;

Equal 3rd Jane Boroky Syndicate – Score 17.0 Points – 2019 Petit Verdot.

Equal 3rd Prospect Hill Syndicate – Score 17.0 Points – 2020 Montepulciano.

Equal 3rd Prospect Hill Syndicate – Score 17.0 Points – 2021 Montepulciano.



Wine Results: Emerging Varieties (White Wines);

Judge: Dan Traucki: 1 Entry

1st Prospect Hill Syndicate – Score 16.5 Points – 2021 Vermentino;

2nd Not Awarded;

3rd Not Awarded.



Don't Forget, bring your Own Glass – please

To allow more time for tasting of the competition winners, we request bringing your own tasting glass.
This is working out better!!



Apple Crush – Sunday 7th May

Cutoff date for apple juice orders is: 30th April.

Contact Michael Lineage: mclineage@bigpond.com / Mob 0415 604 788

Where: Anytime from 9 am onwards; Tregarthen Road; Summertown

(About 200 metres from the Summertown Road)

BYO BBQ food / lunch and drinks and a chair.

Feel welcome to invite your friends to join together Adelaide Ferment and Blackwood Wine Clubs for an enjoyable day.

Great day of fun for the whole family; buy your apple juice (watch it being crushed, then pressed); sit around a bonfire and share wines / beers and perhaps share / taste home-made specialities brought by members.

If you need a good recipe to make a cider: See Peter T.



Calling ALL Trophy Winners

The Club is looking to retrieve trophies back from members in the upcoming months in preparation for the new winners. **Perpetual Trophies to be returned by the May (AGM) meeting!**

Annual Subscriptions:
\$30 for members (\$25 concession card).



BSB: 035-048

Acct # 000 230 040

**The Amateur Winemakers and
Brewers Club of Adelaide Inc.**

Diary Dates: Keep these dates free
1st Tuesday in month - Club meeting

NEXT MEETING or date to remember

- 2nd May Meeting – AGM & Cake-off Competition
- 7th May Apple Crush – 9 am start confirmed
- 6th June Meeting
- 4th July Meeting
- 1st August Meeting

COVID 19 HEALTH & SAFETY RULES change!

- Physical distancing (1.5 m apart) is recommended
 - Mask wearing is optional – it is up to you;
 - If sick (or slightly unwell) - stay home;
- **Vaccination is no longer mandatory;** 4th vaccination recommended

Last Month: Bill Skinner: 'Cultures and social functions of home winemaking'



At last month's meeting the club had numerous apologies from members and the lowered attendance was highly evident, which meant they missed out on Bill Skinner's articulate presentation. We should try to have him back.

His opening slide image highlighted the influence of the US Prohibition laws.

Prohibition, *legal prevention of the manufacture, sale, and transportation of alcoholic beverages* in the United States from 1920 to 1933.

The laws did not prevent people from making and drinking their own wine and beer, however that 13-year period, which had great influence and stimulus on the USA amateur wine and beer makers of today.

This is the edited second-part of the Keeving article. The first-part was presented last month. *Due acknowledgement to the UK Cider organisation (visit here: <http://www.cider.org.uk/keeving.html>)*

Keeping Brought Up to Date

The advantage of this process is that it can produce a naturally sweet and well-coloured cider, brilliantly clear due to the removal of pectin during keeving, and full of flavour because of the low nutrient levels during fermentation. The disadvantage is that a lot of it depends on luck - the correct fruit, cold weather,

benevolent strains of wild yeast and freedom from bacterial infections! However, it has been made much more controllable in recent years by some key items of technology.

Commercially, the vats are refrigerated at 4°C, the chapeau (or cap) is encouraged to rise by bubbling nitrogen gas through the system, and centrifugation is used to remove excess yeast if the fermentation should develop too quickly. These technologies are not available to the amateur or small producer, but there are two important parts of the system which are - **calcium** and **pectin methyl esterase** (PME) enzyme.

Calcium is required to form the pectate gel. Depending on where the apples are grown, there may or may not be sufficient naturally present calcium in the juice, but it can be added in the form of a calcium salt and this makes the keeve much more reliable and gives a thicker denser cap. Food grade calcium chloride is used. The maximum dosage used is 400 parts per million or 4 grams per 10 litres, which is stirred into the juice immediately after pressing.

PME is required to de-esterify the pectin so that a gel can form. Apples themselves contain natural but variable amounts of PME and has been a very considerable constraint on the process. Brand names that were available in late 2008 are *Rapidase CME* (made by DSM), *Novoshape* (Novo) and *Crystalzyme AES* (Valley Research Enzymes USA). Not all these are readily obtainable in small quantities. This is undoubtedly the easiest way to get started with keeving.

It is very important to stress that these PME enzymes are **not at all the same** as the commonly available pectic enzymes (Pectinase) used for clarifying purposes. These PME preparations are very specialised and must not contain any trace of the other Pectinase 'polygalacturonases' or 'depolymerising' enzymes, which are used for juice clarification. The pectin must only be de-esterified; if it is de-polymerised too, then the gel will **never** form. It is also important to stress that the PME and calcium chloride must never be added together but only as two separate sequential operations. PME dosage depends on enzyme strength.

Availability of these two components have helped to take keeving from the realms of art closer to that of a science (if you cannot source the PME enzyme then even the addition of calcium chloride is a considerable help).

One important step is the 'maceration' of the pulp, that is, leaving it for 24 hours. A major purpose of this is to solubilise as much pectin as possible – it is important to have enough pectin to form a good gel and by leaving the pulp overnight it has the chance to solubilise and leach out of the cell walls. There is some evidence that it is useful to add some of the PME enzyme at this stage too, but pectic enzymes are also inhibited by the pulp tannin so it is best to reserve some for addition to the juice also in the normal way.

In traditional keeving, the PME did not work well in acidic (low pH fruit) and hence bittersweets were the fruit of choice; bitter sharps like Kingston Black would not generally keeve. This was obviously something of a drawback since it left the fermentation poorly protected against microbial infection at such a high pH. Fortunately, conventional wisdom has now been turned on its head with the new enzymes which are



active at much lower pH, and other craft cider makers have carried out successful keeves with blended juices including bitter sharps down to pH 3.6 and even below. This is a considerable advance and allows keeving to be much more widely practiced for well-balanced juice blends, which was frankly tricky before.

It will be noted that a wild yeast fermentation is required and that little sulphite is used (in the traditional scheme, the barrels were pre-sulphured). Cultured yeasts obviously cannot be used here since they are far too vigorous, indeed it is interesting that the French industry is still very keen on slow mixed microflora fermentations. On the other hand, incipient

fermentation is required to start within a few days since the cap must be buoyed up by trapped gas bubbles.

In practice apply sulphite (PMS - SO₂) at one-half or one-quarter the recommended level for the pH ([see table](#)), ensures sufficient wild yeast growth occurs to raise the cap in a reasonable time (about a week). But there is also a case to be made for no addition at all before keeving. This is to encourage the

apiculate yeasts to get going quickly to raise the cap. You can then add a half-dose of sulphite after the juice is removed from the cap.

Racking the clear juice from between the chapeau and the sediment can be something of a challenge, but is made easier by translucent HDPE tanks with bottom taps and a small pump. In traditional designs for French cider factories the keeing tanks were set up above ground level, so that the keeved juice could be gently drawn off by gravity from below the '*chapeau*'. This operation should not be rushed, and the potentially fragile cap should not be allowed to break up.

The cap can vary in firmness and crustiness quite considerably and not all the keeved juice will be easily recovered. Sometimes it is possible to let the cap re-form and take a second crop of juice after a couple of days. But some irretrievable volume loss (maybe around 20%) must be expected during keeing. It is also critical to watch the process daily and to rack off just before the cap begins to break up and to fall back into the vat.

Once the fermentation is under way, it needs monitoring and then some sequential racking to slow it right down, with a view to bottling at say SG 1.015 or 1.010. There is some interesting recent French work which shows that a first racking once the SG has dropped by 10 points is the optimum time for initial yeast crop removal.

It will then take several months to develop 'condition' in bottle. You must be sure that the fermentation is imperceptibly slow by then (a maximum loss of 2 points SG over 3 weeks) and champagne bottles are recommended in case of accidents, because in theory you will be over the limit at which the bottles could burst should all the sugar re-ferment. Typically a "bottled" of keeved cider will drop by around 5 points in SG as it conditions in the bottle. In France, keeved ciders are bottled in champagne bottles with slightly undersize special '*cidre bouché*' corks (25 x 38 mm) and stored upright. Then, if excess gas should develop, it can escape slowly past the cork rather than blow the bottle. The bottles should be stored in a cool place.

On the other hand, your keeing may be so successful that the cider sticks at a higher SG than you want. For instance it may stick in bulk at SG 1.025 whereas you want it to be at around SG 1.015. Before you decide that you really are in this position, you should review the overall SG loss and speed of fermentation. Bear in mind that you will be making these decisions in springtime as the weather warms up, and so the yeast activity may naturally increase anyway and take you closer to the target SG. It is always worth 'forcing' a test portion of the ferment at 20°C for two or three weeks to see if this happens.

But if you are certain that your cider has really stuck at an SG higher than you want, then you have the possibility of adding very small doses of nutrients or a very small amount of cultured yeast to move things along. The first thing to try is probably thiamine (vitamin B1). You need only a very small amount, in the order of 0.2 ppm (that is 0.2 mg per litre).

Depending on the strength of the thiamine that you buy, you will probably need to make a concentrated solution in water and dispense it into the cider volumetrically. After dosing thiamine, wait 2 - 3 weeks to see if fermentation resumes. It would be wise to do this on a test basis rather than the whole batch, and to hold the test vessels at a higher temperature (say 20°C) as previously suggested. If thiamine doesn't help, the next addition would be diammonium phosphate (DAP).

The normal recommendation to fix a stuck fermentation and to take it to dryness is 50 ppm of DAP for each 10 points of SG drop required. However, [Claude Jolicoeur in his book](#) mentions some trials he's done on restarting stuck keeved ciders and he recommends the addition of rather less - around 15 ppm DAP for an SG drop of 5 points.

Again, it is worth doing tests before treating a large bulk. If neither of these additions work, you may consider the addition of a cultured yeast such as a champagne yeast. You only need a very, very small amount of yeast for this. The recommendation from a [2006 French manual](#) (*Guide Pratique*) is to add just 1 - 2 grams of dried yeast per HL (100 litres) of cider. That is very much less than you would use for a full fermentation of course.

Attempting to remedy a stuck keeve should be regarded as a very delicate operation. It is easy to overshoot and to undo all the hard work you've already put in!

Next month....

Annual General Meeting...thinking of contributing and helping to improve what we do?