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BABB's News

Volume 37, Issue 5

May 2014

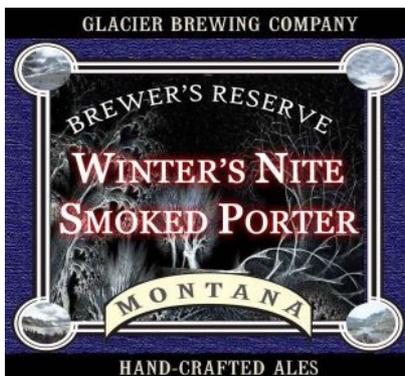
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BABB's Annual Competition

This year's annual club championship will be held at Craftbrewer on Sunday 6th July, with the results announced at the July meeting. This is one of your best opportunities in the year to get good quality, anonymous feedback on your beers, and we encourage all members to enter. For those who haven't entered before, beers are judged using the same score sheets as the mini-comps, however, instead of being judged as a group, two or three judges evaluate each beer independently with a quick check at the end to make sure there are no major disagreements. This allows beers to be judged without the influence of others, and is how the state and national competitions are judged.

Prizes up for grabs this year are:

- Category Winners: Sack of grain
- Champion Novice: New equipment to the value of \$250
- Champion Beer: Set of premium beer glasses
- Champion Brewer: Subsidised costs to ANHC 4 (or similar) to the value of \$250



The full list of styles that can be entered are listed at http://babbrewers.com/files/story/2014/01/BABBs_Schedule_2014.pdf (unchanged from the last two years) and the entry form can be found at http://babbrewers.com/files/story/2014/01/RulesAndEntryForm_2014.pdf

Please review the rules, even if you have entered before, making sure you label the bottles properly and include a completed entry form and the correct entry fee. Entries are due at Craftbrewer by 1pm on Saturday 21st June.

In order to run the competition smoothly, we will require the support of members on the day. If you are able to help out on Sunday 6th July in any capacity, please let Dan or one of the other committee members know at the next meeting.

May Meeting

The next BABB's meeting will be held this Thursday, May the 22nd, from 7:30PM.

This month's meeting will feature the tasting of the Sunshine Coast Brewery Yeast Experiment beers. In March, a number of brewers took home a fresh-wort cube from our trip to the brewery, and each fermented their wort with a different yeast. Come along to the meeting to find out just how much of a difference yeast makes to the same batch of wort.

The winner of the Rye Mash Paddle competition will also be announced on the night, as will the three other finalists who will get their beer brewed to go on tap at Archive Bar at a future date.

ANHC4

The Australian National Homebrew Conference is taking place in Canberra on October 16-18th.

In addition to local speakers such as Steve "Hendo" Henderson (Brew Cult) and Brendan Varis (Feral Brewing), the organisers have lined up Vinnie Cilurzo from Russian River, Michael Fairbrother from Moonlight Meadery, and a number of presenters from the Brewing Network. If past ANHC events are anything to go by, this will be an excellent chance to meet and learn from some great brewers, while hanging out with fellow amateur brewers and getting to drink some special beers.

The first conference competition has been announced, with the theme of "Fifth Ingredient". Basically it is open to any BJCP style of beer that has been enhanced in some way by additional ingredients. In addition to having the beer served at the conference, the winner will also receive free tickets to the conference and club night, so it's well worth entering. For more details, see <http://www.anhc.com.au/index.php/competitions>.



Ipswich Show Homebrewing Competition

by Mark Davies

On Saturday 10th May the judging for the Ipswich Show took place at Alehouse 24 at Yamanto.

The competition was organised by Tony Brown (former BABBs member) and the Ipswich Brewers Union. There were 6 categories, Pale Ales, British, American, Belgian, Stouts & Porters, and German Beers.

The competition received 93 entries (nearly double 2013), was BJCP sanctioned for the first time, and had at least one BJCP judge for each category.

The most popular categories were Pale Ales with 22 entries, British with 21 and Stouts & Porters with 19.

BABBs members who judged were Dave Clarke, Mark Davies, Stephen Wharton, Ryan Felstead, Colin Wright, and Troy Parker. Former BABBs member Tim Butler (now IBU) also judged.

The winner of the Champion Beer was Michael Johnson with a Saison, and runner up was Troy Parker with an American IPA. The full list of results are on AHB, and IBU Facebook page.

It was a well-run competition with all the judging completed by 3.00pm. The standard was good with only 2 gushers, one of which just seemed to be over primed or not fully attenuated.



Ipswich Show comp judging at Ale House 24.

April Minutes

Brewmaster Welcome

Previous minutes: Approved.

Visitors: Stefin Seelich
Kurt Whalan
Brett Morrissey
Nathan Rye
Chris Seto-Payne
Michael Bongard
Graham Black

New Members: Luke Lowery
Dion Clark
Paul Schofield

ANHC Homebrew Comp: "fifth ingredient", judged as specialty. BABBs to send members' entries down - bring to May meeting. Entries due Friday, June 13th.

ANHC Club Night: Stephen Wharton will be liaison again.

Still need a theme for club night. Mailing list to be setup again for ongoing communication.

PH Meter Bulk Buy: Roughly \$100-110. Roughly 20 looking to buy at this stage.

Announcements:

- Martin Rudge's beer on tap.
-

- PUBS annual German Club Dinner on 24th May.
 - Annual Comp entries due late June.
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Other Reminders:

- Grafton Show – 1/2nd May
 - Ipswich show competition in May - entries due 6th, judging on 10th
 - Sunshine Coast Beers to be brought to May meeting (gas supplied for those bringing kegs).
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Treasurer's report: Report approved. Club is in a sound financial position.

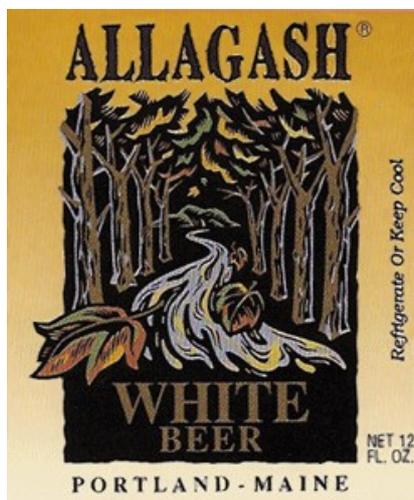
Deputy Brewmaster's report: Shirts and caps have arrived for those who have purchased. Spares are available.

Secretary's report: Newsletter content.

Librarian's report: Zymurgy and Brew your own have arrived. New subscription to Beer and Brewer started, has not arrived yet.

Will need a new Librarian at the next AGM in July.

Webmaster's report: iCal has been uploaded and available. BABB's also has a Facebook group for those interested.



Tech Corner - Ale and Lager Yeasts

by Angus Rich

With the BABBs Sunshine Coast brewday tastings coming up at the May meeting I thought it would good to look at yeast. In particular, what makes ale and lager yeasts different?

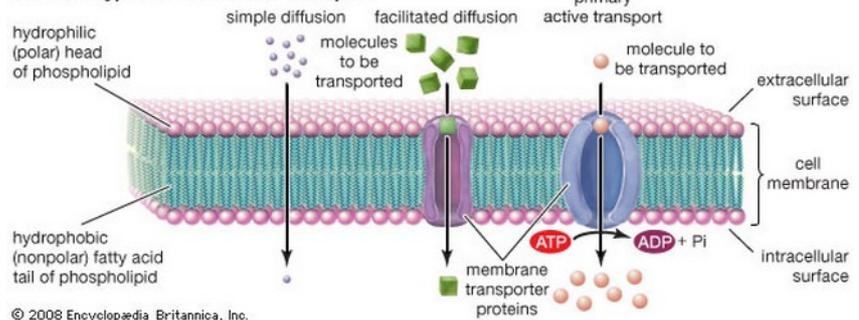
Traditionally amongst brewers, ale yeasts (*Saccharomyces cerevisiae*) were defined as skimming or top fermenting yeasts and lager yeasts (*Saccharomyces pastorianus*) as cropping or bottom fermenting yeasts. Nowadays, with the use of conical fermenters most brewers, and home brewers included, collect yeast from the bottom of the fermenter when fermentation is complete. We all know that lagers have optimum fermentation temperatures between 7-15 degC and ales are optimum between 18-25 degC but why is this the case? The answer lies in the genetics of the two yeasts and their sugar uptake mechanisms.

But first, a little bit of background in how yeast take up sugars helps with the understanding. The yeast cell consists of: a cell wall which is designed to hold its shape and act as a filter; the space between the cell wall (periplasmic space); and, the cell membrane.

The cell membrane is the key to controlling nutrient uptake as it is constructed of a bi-lipid layer that has various proteins embedded in it. The reason the wall is a lipid layer (unsaturated fat acids and sterols) is it repels water (hydrophobic) and anything dissolved in water. This allows control of the diffusion of sugars and nutrients that are dissolved in the wort from simply diffusing across the cell membrane. Fatty acids and ethanol are the exception as these are able to diffuse across the cell membrane.

So how do the sugars get into the cells for metabolising? The proteins embedded in the cell membranes, called permeases or transporters, do the work. There are different transporters for different sugar types and they use different mechanisms to either provide assisted diffusion (no energy required) or a mechanism to

Different types of membrane transport



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pump the sugar into the cell called active transport (energy required) or proton symport. The sugars that are fermentable by most brewer's yeasts are sucrose, glucose, fructose, maltose and maltotriose with maltose being the most abundant carbohydrate. The order of uptake is in the same sequence with maltose and maltotriose being the most abundant in all malt worts. The simple sugars use assisted diffusion and the more complex sugars (maltose and maltotriose) use active transport.

So what has this to do with ale and lager yeasts? The presence of the different type of transporters determine what sugars the yeast metabolises and not all the same type of transporters are present in both the ale and lager yeasts.

Ale yeast (*S. cerevisiae*) has been around for thousands of years and has been man's best friend for making beer and bread. However, lager yeasts (*S. pastorianus*) have only been around for 500 or so years. Lager yeast is the love child of ale yeast and champagne yeast (*S. bayanus*) created by sexual reproduction (sporing) which yeasts can do under certain stress conditions. What this means is that lager yeasts have genetics from both strains which give them the characteristics of being able to ferment at lower temperatures, growing at no greater than 34 degC whereas ales grow at 37degC, and to be able to metabolise a broader range of sugars.

For brewers, the key characteristic is lager yeast possesses the genetics for a number of sugar transporters that ale strains don't have. Lager yeasts are able to have greater

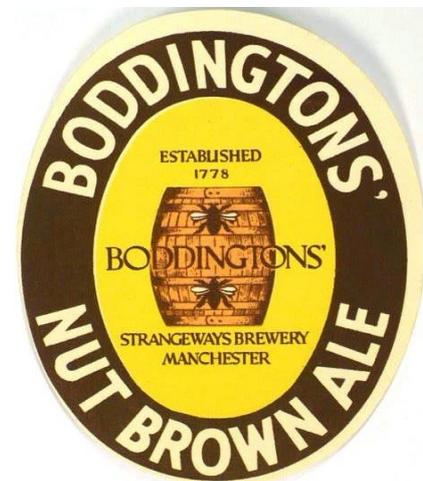
affinity and ability to ferment maltotriose completely providing a more complete fermentation profile. Ale yeast do possess some capability to uptake maltotriose but it varies from strain to strain and can be completely suppressed in some.

The other characteristic is that lager yeasts can fully metabolise raffinose (trisaccharide of melibiose and fructose) and ale yeasts can only partially metabolise the sugar (fructose component). For a brewer this is of little consequence as the raffinose in barley is fully metabolised during malting and none survives into the malt. However, you might want to consider using a lager yeast if you make a cabbage or bean beer which contain raffinose!

Drinking Wisdom

"All the great villainies of history, from the murder of Abel to the treaty of Versailles, have been perpetuated by sober men, and chiefly by teetotallers."

– H.L. Mencken



Mini-comp #3 - Belgian Ales

Congratulations to Paul Schofield, who took out last month's Belgian mini-comp, his first mini-comp since joining the club. Paul's beer will be brewed at Craftbrewer and will go on tap at a local venue soon.

Tied for second place behind Paul's Belgian Dark Strong Ale were Dion Clark (with another Dark Strong Ale) and Ralph Devoil (with a Witbier). An honourable mention goes to Cory Macdonald's Belgian Dubbel.

Paul said "The recipe was originally brewed for the mash paddle as a Weizenbock with rye (Ryezenbock) but due to it attenuating a bit more than I expected the flavour profile reminded me of a Belgian Dark Strong."

Type: All Grain
 Batch Size (fermenter): 23.00 l
 Boil Size: 31.54 l
 Boil Time: 90 min
 End of Boil Volume: 27.04 l
 Final Bottling Volume: 21.00 l
 Brewhouse Efficiency: 60.00 %
 Est Original Gravity: 1.081 SG
 Est Final Gravity: 1.019 SG
 Estimated Alcohol by Vol: 8.1 %
 Bitterness: 21.0 IBUs
 Est Color: 34.1 EBC
 Measured OG: 1.081 SG
 Measured FG: 1.012 SG
 Actual Alcohol by Vol: 9.1 %
 Cooling Method: No chill

Grain:
 4.2 kg Pilsner (Weyermann) (3.3 EBC)
 2.5 kg Rye Malt (Weyermann) (5.9 EBC)
 2.5 kg Wheat Malt, Pale (Weyermann) (3.9 EBC)

0.58 kg Munich I (Weyermann) (14.0 EBC)
 0.2 kg Chocolate Rye (Weyermann) (482.6 EBC)
 0.19 kg Caramel Rye (Weyermann) (69.0 EBC)
 0.16 kg Caramunich II (Weyermann) (124.1 EBC)
 0.14 kg Special B (Dingemans) (290.6 EBC)

Other:
 Brewbrite
 Yeast Yeast Nutrient

Hops:
 20 g Hallertauer Mittelfrueh T45 Pellets [9.0 %], Boil 60 min

Yeast:
 German Wheat (Wyeast Labs #3333)
 1L Starter followed by 2L (both on stirplate)

Mash:
 Single infusion @ 67 Degrees Celsius for 90min (probably lost about 2 degrees over the 90 minutes)

Boil:
 90 minutes with hops at 60 minutes, yeast nutrient at 15 minutes, Brewbrite at 10 minutes.

Into the no-chill cube.

Ferment:
 17 Degrees Celsius until around 75% attenuation then bump up to 20 Degrees Celsius.

Notes:
 Took about 2.5 weeks to get to FG, then left for another 4 or 5 days, then crash chill to 1 Degree Celsius for a couple of days, kegged and force carbonated. Looking for around 3.5 volumes.

Left at fridge temp (about 2-4 Degrees Celsius) for about a month, should improve with more time.

Treasurer's report: April 2014

Income:	(cash/chq)	(dir. dep.)
Subscriptions:		\$ 62.00
Raffle:	\$ 201.00	
Library:		\$ 24.00
Club shirts:	\$ 67.00	\$ 48.00
Sub-totals:	\$ 268.00	\$ 134.00

Total Income: \$ 402.00

Expenses:	(cash)	(cheques)
Rent:		\$ 70.00
Food:	\$ 45.00	
Club badges:	\$ 7.00	
Library:		\$ 46.53
Sub-totals:	\$ 52.00	\$ 116.53

Total Expenses: \$ 168.53

Profit/Loss: \$ 233.47

Bank Reconciliation for April 2014

Opening cashbook balance:	\$15578.56
Add Profit/Loss:	\$ 233.47
Closing cashbook balance:	<u>\$15812.03</u>

Bank balance @ 30/Apr/14:	\$ 5958.56
Add outstanding deposits:	\$ 0.00
Less outstanding cheques:	<u>\$- 146.53</u>
Reconciled bank balance:	\$ 5812.03
Add term deposit:	<u>\$10000.00</u>
Reconciled bank balance:	<u>\$15812.03</u>

What is Sorghum?

Sorghum is a genus of grasses with about 30 species, one of which is raised for grain.

The plants are cultivated in warm climates worldwide.

One species, Sorghum bicolor, is native to Africa and is an important crop used for food, fodder, alcoholic beverages and biofuels.

Most varieties are drought and heat-tolerant and are especially important in arid regions, where the grain is a staple food.

Sorghum bicolor is an important food crop in Africa, Central America and South Asia and is the fifth most important cereal crop grown in the world.

Sorghum is also gluten-free and is a key ingredient in many gluten-free beers.



Upcoming Events

May:	
17-25 th	Good Beer Week (Melbourne)
22 nd	May meeting: Mash Paddle winners announced, Sunshine Coast Brewery beer tastings, ANHC comp entries due.
24 th	PUBS annual German Club night
June:	
21 st	Annual competition entries due at Craftbrewer by 1pm
26 th	June Meeting: Porter & Stout mini-comp
July:	
6 th	Annual competition judging at Craftbrewer
24 th	July Meeting: Annual General Meeting. Annual comp results announced