

Some Thoughts on Yeast Management

- Sammy Samoluk

On the eve of my first attempt at brewing a barleywine for next year's competition, I am confident that by pitching time late tomorrow afternoon, my fourth step-up of the large "smack pack" of Wyeast 1056 (American Ale) yeast will yield enough healthy yeast cells to completely ferment a five-gallon batch with a specific gravity of 1.080, plus a second running of five gallons at 1.040. I can remember a time, however, when my focus on yeast in relation to the other ingredients was literally in proportion to the weight and cost of it in relation to the other ingredients.

Flashback to 1989, Pensacola, Florida.

Brew day. A much younger Sammy has gathered together two cans of malt extract, some crystal malt, some hop pellets, brewing notebook, equipment, and inspirational brewing music of the late '80s--typically U2 or The Pogues. Oh, and by the way, some yeast. Not just any yeast, though. I would discard the packet that came with my can of John Bull syrup, and spring the extra few pennies for a pack of Red Star. Red Star came in two varieties: ale and lager, and I wasn't set up for lagering, so I didn't do a lot of head scratching over yeast selection. The beer I made was pretty drinkable, based on the rate at which my buddies and I drank it, but that doesn't say much for its quality back then.

A major turning point in my brewing philosophy occurred that year, however, when the president of the brew club I was in - the Escambia Bay Brewers - turned pro. That was the year that my favorite watering hole installed a brewery, and my friend Steve applied for and was hired as the Brewmaster. It was a dream come true for me. I had spent almost every Friday night at this particular Irish pub, and many a Saturday as well, and now they were making their own beer.

Steve was an accomplished home brewer, and even dabbled in homebrew supply sales for a time, but his expertise rapidly increased in his new position, and he remained a friend to his homebrewer buddies. After several offers, I finally took him up on his offer of free yeast from the brewery. Steve filled a styrofoam coffee cup with pure slurry, covered it with aluminum foil, and left it behind the bar. The bartenders would keep it for me until my next opportunity to collect it.

The first beer I made with this yeast amazed me. I had no idea I could make beer that good. The conclusion I drew - that this was a better yeast strain than I had been used to - was partially right. I didn't realize then, however, that the health and quantity of yeast was as important to the quality of beer as the strain of yeast. Steve also told me then that 'they' were starting to come out with liquid yeasts that home brewers could buy, but my local supplier didn't yet have any.

Fast forward to the year 2000. Several yeast producers vie for the patronage of homebrewers, and the menu of one supplier alone fills a poster. Yeast selection and management are now a primary concern in an older and wiser Sammy's brewing doctrine. The brewing process no longer starts on brew day, but at least three days prior to brew day when the smack-pack is broken and the cell multiplication process begins. For those who currently do not prepare yeast starters, I offer some advice on how to do it, but first and foremost, do it!

There is a lot of literature available on the science involved, and I am not qualified to address it, so I will offer some practical advice, and leave the research of the science behind it to you.

First, **look at the date stamped on the package.** For Wyeast "smack packs," you can expect that the time required to go from the "smack" to fully swollen will require about one day for each month since packaging. That means that if today I buy a smack-pack that's three months old, I'm not brewing for at least four or five days, because it will take two or three days just to get the package to swell, let alone stepping it up.

...Continued on the last page of this newsletter.

Club Elections

Please consider running for a club office. **Elections are just one month away** and volunteers are needed to take on the management of our great organization. If you are interested please talk to club President Barbara Brumbaugh or any of the other current club officers.

The Meeting Place - Diane
Catanzaro

Abbey Road!

The Wednesday, January 3rd meeting of the HRB&TS will be held at 7:30 at **Abbey Road Pub and Restaurant**. Owner Bill Dillon is a friend of club alumnus and award-winning brewer **George Bach**; their children played t-ball together when George lived in Virginia Beach. Abbey Road has a large number of beers listed on the menu. Some of the more interesting ones are **Rogue's Dead Guy Ale, Flying Dog Doggy Style, Sierra Nevada Pale Ale, Wild Goose IPA, and Skullsplitter**. We are going to see if they can get in some seasonal and Christmas Ales for the meeting. **Bring any homebrew!** They have a full menu available until 1 am.

Abbey Road is located at 203 22nd St., Virginia Beach, 425-6330.

Directions: Getting there could not be easier. Take 264 E to the Oceanfront. This puts you on 21st Street. Turn left on Atlantic, then left on 22nd Street. Abbey Road is on the right.

Important reminder: please bring homebrew only to all restaurant meetings. **DO NOT** bring commercial beers to restaurant meetings so that the club and the restaurant are in compliance with Virginia ABC laws. Commercial beers may be purchased at the restaurant. Commercial beers may be brought to home-based meetings only.

A Special Message from your meeting coordinator!

Remember that when our club meets at local restaurants and pubs, the club does not pay for these accommodations. The restaurant provides the room, and generally the club buys benchmarks from the restaurant at a reduced rate. Why do restaurants do this? Public service? Charitable write off? Because your location coordinator begged and pleaded? Nay, nay, my ale quaffing comrades. I submit to you that these noble restaurateurs hope to sell food and beer to club members before and during the meeting!!! This allows the restaurant (and possibly even some of the wait staff) to pay taxes, so the government can build better roads to get us to club meetings swiftly and safely. Plus, if the restaurant does well they are likely to want to have us back in the future. So, if you are deciding between fixing a sandwich before the meeting, or having a bite with the club at the meeting, consider the important benefits of eating out!

Editor's Notes - Curt Aasen

We welcome all news items, original articles, business notices, and letters to the editor. Submittals for publication in the Home Imbrewment must be send it to us as an e-mail or an e-mail attachment in any version of MS-Word or Wordperfect to HRBTS@att.net.

February Deadline: Saturday, January 27

Mark it in your calendar now!

Upcoming Beers of the Month

The following beer of the month (BOTM) schedule has been approved by the club President for the following year. This schedule has been adjusted to allow time for the winning entry to be sent out to AHA Club Competitions.

- January: Holiday Beers
- February: Stouts *
- March: Belgian Ales.

* AHA Contests: First place winner to be sent to AHA Club Only Comp.

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Next, with regard to the specific gravity of the starter, **build up your yeast in a solution similar to what you expect to finally pitch it in.** That goes for temperature as well as density. I find that the easiest way to do this is to save some wort from my current batch to use in stepping up my next batch. This wort is already hopped and the hot break trub has settled out of it. Can some wort in mason jars by sanitizing the jars, then pouring in wort while it is still close to the boiling point. I keep mine in the refrigerator for extra protection, and have not had one go bad yet. Before adding refrigerated wort to the starter, be sure to allow the two liquids to arrive at the same temperature.

Get as much oxygen as possible into your starters. Without going into too much biology of which my grip is most tenuous, suffice it to say that oxygen uptake is a key reason for making starters and increasing pitching rates.

Agitate the starter, especially if it appears sluggish. Canned wort which has been refrigerated for a while will settle nicely, and become quite clear. When you decant the clear wort off the cold break trub, you can be assured that beautiful white precipitate is fairly pure yeast. Unfortunately, fermentation in these very pure wort starters often appears sluggish, judging by the rise of a foamy head. Then, when the jar is shaken, CO₂ rapidly comes out of solution, potentially causing a foam-over. The problem here is that there are too few nucleation sites for CO₂ bubbles to form on, and the CO₂ therefore become super-saturated in solution. The over-abundance of CO₂, a toxin to yeast, causes yeast activity to slow. Agitation knocks the gas out of solution, and swirling of the starter from time to time is a good idea to keep the CO₂ down and the yeast suspended in solution.

Double the volume of starter with each step up. Going much beyond that will not give the best results.

For higher gravity beers, or for lagers, use higher pitching rates. Papazian writes that the ideal proportion of yeast to wort is about ¾ cup of pure slurry per five gallons wort.

My technique: after a brew session, I seal one gallon of hopped wort in what was once a large Mount Olive pickle jar. (Getting the dill smell out took some time!). I keep the jar in the refrigerator. When it is time to make a starter, I sanitize a one-quart Burgey's milk bottle, and a half-gallon Tropicana Orange juice bottle. From the one gallon pickle jar, I pour out a little more than a pint into a saucepan. I boil it, let it cool, put it in the quart-size bottle, pitch the yeast, and aerate it, being sure to leave room for expansion. Swirl occasionally. At high krausen, I pour the starter into the half gallon juice jar, then add a quart from the pickle jar (after having boiled and cooled it). When the half gallon reaches high krausen, I pour out the other half gallon from the pickle jar, boil and cool it, and combine both half gallons back in the sanitized gallon-pickle jar and aerate. It's simple, and it works.

About the HRB&TS

The Hampton Roads Brewing and Tasting Society is dedicated to promoting the enjoyment of homebrewing. The annual dues are \$15 per individual and \$20 per family. Members are encouraged to support the responsible enjoyment of beer and observe the beverage laws of the Commonwealth of Virginia. Persons attending HRB&TS meetings and events are solely liable for actions attendant to their participation. HRB&TS Maintains a **NO SMOKING** policy at all meetings so that members may better enjoy fine beers. Smoking is permitted during restaurant meetings in designated smoking areas.

Visit the HRB&TS on-line at:
<http://groups.hamptonroads.com/hrbts>

February Deadline: Saturday, January 27

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