THIS is the HOTV BREWSLETTER

VOLUME XVII NUMBER 6

Summer Solstice
June, 1997

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Post Festival De-Briefing and Monthly Meeting

Heart of the Valley Homebrewers met at Lee Smith's home for the first meeting after our successful festival. Helen cooked up some jambolaya, complete with file powder, but without okra, it just wasn't gumbo. We sampled some of the fine entries that were left over from the competition, and each person seemed to have personal favorites. A few finishing touches were put on some paperwork, and we had a VERY short business meeting.

June Meeting in the Great Outdoors

Heart of the Valley Homebrewers meet at least once per month. Our meetings are customarily held on the third Wednesday of each month at 7:02 pm.

The June meeting has been arranged by our very own Frank Bretl. Frank has contacted Benton County and arranged for the use of one of our fine parks. We will meed on June 18 (Wednesday, dontcha know) at Walnut Park. Walnut Park is located at 4905 NW Walnut Blvd in Corvallis. This is where Walnut Blvd takes a sweeping curve west of Witham Hill Drive in the northwestern most corner of Corvallis. Check your local Corvallis phone book for a map.

HOTV will have use of the park from 5:00 pm until 10:00 pm. Alcohol is permitted. There was a small fee to rent the park, but perhaps either our club will pick up the tab or we can each chip in a buck or two. Facilities include A renovated barn w/ roof in good repair, near by play land (for later on when Lee gets loose), A faucet with free flowing filtered chlorinated Willamette River sludge (i.e. - bring lot's of beer), and 2 large BBQ apparatuses (BYO Charcoal/Fluid/Food)

Please bring some grub for the grill, frisbees, volley ball stuff, whatever. Frank Bretl will be arriving early (4:30ish) with the key to the gate, and to get things going. Any and all are welcome to join in thereafter. We need to be out by 10PM.

CO2 Available

Our club has a CO2 dispensing system for the use of any member in good standing (this means dues paid). The system has been used both for personal use and as an accessory for meetings and our competition. It is

a nifty little system, and you can check it out for a month. See Lee Smith for details. The system is currently available. If you get in touch with Lee, he can probably bring it to the next meeting.

15th Annual Competition a Success!

The Fifteenth Annual Oregon Homebrewers Competition and Festival was held last month and appears to have been a success. All the ribbons have been mailed, and the books have been closed for another year. A total of 236 entries were received and judged. This is the greatest number of entries we have ever had. Maybe we'll have 250 or more next year! We would never have been able to pull it off without the help and support of our members, volunteers, and corporate sponsors. Special thanks to Frank Bretl for organizing donations for the raffle, John Sterner for organizing the judges, Jerry Marshall and Jeff Tobin for relentless computer time both prior to and during the competition, Michael Viliardos for organizing the stewards, Bill Baxter for coordinating lunch for everyone, Dave Wolf for organizing individual entries, and Jennifer Crum and Lee Smith for their organizational skills. As I attempted to come up with a list of everyone without whom this competition wouldn't have been a success, I realized that it basically made up our entire membership! So, thanks to everyone who helped out with facility preparation, cleaning, cooking, registration, stewarding, facilitating the raffle, and all the other odd jobs that came along. And, of course, thanks to Jerry and Dan for letting us use their facilities for our gala event.

Now with only eleven months until the 16th Annual Competition, we can begin our planning process. In the next month or two, we can form a site selection committee to examine the possibilities for locating next years bigger, better event! And, it can't be too soon to start making contacts for raffle donations. And each of us may want to start fermenting that special brew we'll enter next year.

Highway Cleanup Scheduled

As many of you know, Heart of the Valley Homebrewers has adopted a short stretch of US Highway 20 between Corvallis and Albany. We gather every three months to pick up litter and share tales of bravery. The next highway cleanup is scheduled for Saturday, June 7. Please meet at 11:00 in the morning at Hyak Park (near Albany) for team assignments and equipment check out. This event usually takes only a couple of hours, and we try to make a point of sharing tales of trash over cool cups once the work is complete.

If you are unable to join us for this event, please mark your calendar for the NEXT highway cleanup which is scheduled for Saturday, September 6. The meeting time and location will be the same.

Competition Announcement

The Capitol Brewers Homebrew Club of Salem is proud to announce the Third Annual Mill Creek Classic homebrew competition. This year's competition, like last year's, will be held on the final Sunday in June at the Cascade Microbrewery and Fireman's Public House in Salem. The Cascade will be offering last year's Best Of Show beer for sale, and this year's BOS brewer will have an opportunity to collaborate with the brewmaster to brew a commercial batch to be offered for sale in the future.

Last year's competition saw 107 entries, and this year we expect even more entries. A fairly lynx-friendly website at www.teleport.com/~nickb/beer has links to online entry and judge registration forms for anyone interested in registering online.

Deadline for entries will be Saturday, June 21, at 5PM. Judging preferences will be accommodated on a first-come basis, with some exceptions to ensure that each category is judged fairly.

Styles to be judged will include all those from the 1997 AHA guidelines, with the following exceptions:

No meads, ciders, or sakes will be accepted. We will also be judging soft drinks this year, after the interesting addition they made to last year's competition.

E-mail Nick Bruels (nickb@teleport.com) for details about the competition, forms, etc.

Open Fermentation

by Jim Busch
(busch@daacdev1.stx.com)

This article is going to cover the concepts of using open fermenters in brewing. The debates over open versus closed fermentation will no doubt continue as long as there are interested brewers to debate. I intend to present some of my feelings, opinions, and experiences with using open fermenters, and point out some of the inherent pros/cons of using this technique. I want to emphasize one thing about this issue: the choice of fermenters is not going to be *the* deciding factor in your finished product, many other factors will play a more important part in the character of your beer. Namely, malt choices, mashing programs, and above all, yeast strain/viability/cleanliness will be the dominant influences on the finished beer. Having said this, there are instances where breweries who changed from open fermenters to closed unitanks have noted distinct changes in the perceived quality of the beers, when judged by experienced taste panels. [1]

Open fermentation is a concept that most homebrewers think is a sure route to infected beer, or as something to be employed in some dark cellar in an old European brewery. I say nonsense! Think for a minute about some of the best world class beers and then think of how many are made using open fermenters: Sierra Nevada, Anchor, numerous English, Belgian and yes, even German brewers use them. It is a common sight in Bavaria to see a brewer mucking around in the thick krausen on top of the open fermenter, collecting samples, skimming yeast, generally doing things that homebrewers are told to avoid. Eric Warner has noted in his excellent book on Wheat beers that open fermenters are the preferred method of German weizen production [2], and that when open fermenters are used the yeast can be repitched for many more generations than when a closed fermenter is used. So what's an open fermenter? At the simplest, it is a vessel with an open top. Depending on the size of the fermenter, they are often covered by some form of lid. The bigger versions are truly open, large shallow vessels, some are lined with stainless steel or an enamel like coating that is usually used over a concrete/block foundation. Often the fermenters are just large stainless steel cylinders. Most, but not all, have some form of attemperater device, to combat the temperature rise during ferments. This can be in the form of exterior jacketing, or metal piping that is immersed in the wort, cold water or glycol is pumped inside the pipes, cooling the ferment. Probably the most classic open fermenters are the Yorkshire Squares used at the Samual Smiths brewery in Tadcaster, England. These are made of flat slate walls, sealed together, with a collecting lid where the excess krausen is contained.

OK, so your thinking open fermentation only works in big breweries since they are filtering the air, and keeping the whole room under positive pressure, and nobody is allowed in. Yes, and no. Sure, lots of breweries go to the extreme of maintaining a separate room with filtered air. Lots more don't do anything. Certainly, the breweries in England that I visited never went to the extreme of filtered air, nor did the breweries in Bavaria and Belgium. Belgian methods of brewing may seem strange , but the dominant flavor profiles found in Belgium beers are a result of the choice of a yeast strain(s) that throws high levels of esters and phenolics, and rarely a result of some infection in the fermenter (even though this is the way to produce lambics, the word infection is a misnomer in this context). Certainly, the Bavarian brewmasters would recoil in horror if any foreign bacteria or wild yeast were to be found in the open fermenter, and in practice, they are not a problem.

I did not always use open fermenters, the first hundred or so of my beers were made with a "closed carboy" system. I put closed in quotes since the carboy can be fitted with a blowoff tube, resulting in a kind of

hybrid closed/open fermenter. Since fall '92, I have been using a open fermenter exclusively, and I am a devoted fan of the concept. My fermenter is a stainless steel cylinder, of roughly equal height to width, with a heavy lid. If you brew with a 10 or 15 gallon stainless steel kettle, this can double as your fermenter, once you remove the hot break. Some brewers employ modified « BBl Sankey kegs, and these too make excellent open fermenters. I have also read of brewers modifying Golden Gate kegs and using these as fermenters. The least desirable, but easiest to start with,is the plain plastic bucket.

The reason I say least desirable is that cleaning plastic is more difficult than stainless, and the inevitable scratches in the plastic walls can be harder to sanitize. Even so, I know of an award winning homebrewer who ferments in food grade plastic trash cans, and another 2 BBl brewpub who ferments in large High Density Poly- Ethelyne (HDPE) containers. I have found that as you increase the brew length (volume of beer produced), it is easier to fabricate some sort of fermenter that can hold the entire batch. In this way, you will be limiting the number of vessels to sanitize and clean up. It is far cheaper and easier to fabricate or modify a container to be an open ferementer than to make a closed one, particularly as the volume increases. An important consideration when sizing the fermenter is to account for a large amount of krausen that can develop during the ferment. Head space of 30% is optimum, but less can be used, with the result being some possible loss of product (which also occurs when using the blowoff carboy method).

Of course, there are some limitations to using open fermenters. I believe they are no more prone to infections than using carboys, but there is an increased chance for infection if one has numerous fruit flies or other animals around the fermenter, provided the lid is off. Probably the biggest limitation is that of time, I do not advise leaving the beer in the fermenter for more than 2 weeks. Of course, any ferment should be racked by the second week, so maybe this isn't such a limitation after all. The reason time is more important in open fermenters is not so much the proximity of the still beer to dead yeast, but of the danger of oxidation reactions occurring as the beer sits. In a closed system, this will not be a problem, but as long as the beer is moved in a timely manner, the CO2 produced during open fermentation will protect the beer. Another important factor to consider is the overall cleanliness of the fermentation area. It need not be sterile, but a reasonable degree of cleanliness is in order, in particular for fermentation inside of a refrigerator. Many brewers use a temperature control device to moderate the ferment temperature inside of a refrigerator. If you use an open fermenter inside of a refrigerator, be sure to clean all obvious sources of contamination and general dirt. Some may even want to sponge down the interior of the refrigerator with a mild sanitizer such as chlorine/water. At the very least, all spilled trub, yeast and wort should be thoroughly cleaned up. Household pets should also be prevented from crawling into the fermenting beer, they may like the results too much! My fermenter is located in the basement, a few feet off the ground, away from large drafts and any foreign debris sources. Heres a summary of how I use my open fermenter. Since I use a stainless fermenter, I don't want to use a chlorine based sanitizer, due to problems with corrosion. So, I prepare a solution of Iodophor, at 12.5 ppm (1 oz in 10 gallons), of a few gallons. Using rubber gloves, I sponge the sanitizer over the sides of the fermenter. I let it run out the drain, then back over the sides of the fermenter. I also run Iodophor through my wort chiller into the fermenter, followed by a hot water rinse. Once the hot water is drained, the vessel is ready for cast out wort. I fill the fermenter from the wort chiller, oxygenate and add thick yeast slurry. As in any fermentation, there is no substitute for pitching enough viable clean yeast. The key to success with an open fermenter (or closed) is a sanitized vessel, and an adequate amount of pitching yeast. Remember to use significantly more yeast if the original gravity of the wort is higher than 1.060. If one is using enough yeast, visible fermentation is evident within 12 hours (ale wort, fermented between 60-70 F). As soon as the fermenter is full and the yeast is pitched, place the lid on. Once the fermentation is generating a thick head of krausen, I have found it helpful to leave the lid partially craThis article is going to cover the concepts of using open fermenters in brewing. The debates over open versus closed fermentation will no doubt continue as long as there are interested brewers to debate. I intend to present some of my feelings, opinions, and experiences with using open fermenters, and point out some of the inherent pros/cons of using this technique. I want to emphasize one thing about this issue: the choice of fermenters is not going to be *the* deciding factor in your finished product, many other factors will play a more important part in the character of your beer. Namely, malt choices, mashing programs, and above all, yeast strain/viability/cleanliness will be the dominant influences on the finished beer. Having said this, there are instances where breweries who changed from

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surface, along with other solid matter that was carried over into the fermenter. This scum can be skimmed off with a sanitized spoon (I leave a long handled stainless steel spoon in some Iodophor and just rinse it off when needed). The ability to skim the trub and yeast that rise to the top of the fermenter is one of the main advantages of open fermentation. Don't overdo it, but about once a day or every other day, depending on the rate of ferment, skim the top. Many ale yeasts tend to flocculate at the top of the ferment as the ferment diminishes. This yeast is excellent to skim and store in a sanitized container, in a cold fridge (as close to 32F as possible). When choosing yeast to save, be sure to wait a few days into the ferment so that the trub is scrubbed away and the harvested yeast is clean. As the ferment dies down, keep the lid over the vessel. Another great plus of open fermenting is the ease of dry hopping.

What I do is let the main fermentation subside and when the yeast clumps to the surface, skim as much off as possible, then add the loose whole hops (I find that whole hops give better aroma and are easier to use with an open fermenter). Allow at least 3 days time for the dry hopping to take affect. I would avoid leaving the beer in the primary for longer than 2 weeks, and aim for 10 days when dry hopping, and a mere 5 days otherwise. These are optimum figures for ale ferments, and are often not realistic in homebrewing, the primary cause being inadequate oxygenation of the cast out wort, and/or insufficient yeast cell densities/viabilities in the pitching yeast. To rack off of the hops, use a sanitized copper/brass or stainless "choreboy" scouring pad, held over the racking cane with a rubber band. Alternatively, the hops can be removed with a sanitized strainer, provided a minimum of air is introduced to the still beer. Important points to remember Pitch plenty of healthy yeast slurry, between « and 1 oz. of slurry per gallon of wort, or at least 1 QT of yeast starter per 5 gallons wort. Professionally, pitching rates are on the order of « to 1 pound of slurry per barrel of wort. If you have a way to increase the dissolved oxygen levels of the wort, do so. At the least, splash the wort when filling the fermenter. Using an air stone and filtered air for the first few hours is even better. Keep the lid on most of the time. This helps to trap the CO2, and since the finished still beer will have around 1 volume of dissolved CO2 in solution, there will be a thin blanket of CO2 over the beer, protecting the beer from detrimental oxidation reactions. Once the ferment is producing large quantities of foam/krausen, it is good to leave the lid cracked, but as soon as the krausen begins to subside, keep it covered. To harvest yeast, wait for the initial fermentation to scrub the dark trub and remove this trub with a sanitized spoon prior to harvesting the yeast. Some yeasts can be stored for 2-3 weeks in a sanitized container, preferably in a cold 32F refrigerator. Some yeasts are quite prone to mutations, and if this is the case, storing for 10 days is the upper limit. If the yeast is to be stored for longer periods, it is advisable to feed fresh wort into the container, and allow another period of fermentation to occur prior to pitching into a fresh batch of wort. Fining agents, such as isinglass, can be added directly to the primary fermenter, provided the desired degree of attenuation has been achieved. Polyclar, or PVPP can also be added directly to the fermenter, although these products should be filtered from the beer prior to serving. Lagers can be made using open fermenter's but the timing and temperature control issues make it more difficult to do than ales. When fermenting lagers in a refrigerator, I would recommend keeping the lid on for the entire primary, and racking the beer into the lagering vessel as soon as primary fermentation is complete, or 90% complete. Conclusion: Fermenting in an open vessel can be an effective and convenient method of beer production and yeast harvesting, especially when brewing ales. It is an easy way to skim trub that rises to the surface of the ferment, and can be a cost effective method to increase batch sizes.

Footnotes: [1] Classic Beer Styles Series #6, Belgian Ale, Pierre Rajotte, pg. 79. [2] Classic Beer Styles Series #7, German Wheat Beer, Eric Warner, pg. 71.

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