



The Grain Mill

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PRESIDENT'S CORNER

by Geoff Larsen

Well, it's that time of year again. As you are aware, this month we will have the last scheduled meeting before our summer break. Victor has been kind enough to make Hoster's available to us for this meeting. Our gatherings there are always a hoot. So, be sure to try to make it. Those of you who wish to eat dinner while there should probably try to arrive a little early, if possible. You can then take advantage of the opportunity to order your meal before things start getting a little hectic.

For those of you who are relatively new to the club, don't be too disappointed with the summer break. While we won't have scheduled meetings, we will have our club brew in June at Wes Raynor's house (otherwise known as The House of Dr. Barleywine). This will be followed up in July by the summer party where we will proceed to consume the product of Dr. Barleywine's labor. We will talk about that more at the meeting this month.

For those of you who are not aware, there was a gathering of the clan heads last month at Wines Inc. Some folks from the Akron homebrew club are mounting an effort to have an Ohio club-only competition between the clubs in Ohio. It would be a nice opportunity to build friendships with other clubs in the state and possibly acquire bragging rights.

The long term view is an annual series of competitions. There would be one big festival/competition each year that would rotate from club to club. This would be along the lines of standard competitions with multiple styles. In addition, there would be three or four supplemental, single-style competitions at other times to ensure a complete range of beer styles are covered. Folks would accumulate points over the course of the year. At the big competition, the person who accumulated the most number of points would become all-around homebrewer of the year.

We are looking at the possibility of kicking the series off with the Grand Brewfest this October. We will be looking for folks to step up and take responsibility for making this idea work. It would be a wonderful opportunity to meet some very knowledgeable folks and learn what is involved in judging beers. Beyond that, it could be a lot of fun. We will talk about this more at Hoster's. I look forward to seeing all of you there.

KEGS FOR SALE AT MEETING

Jim Rudy will be coming to Hoster's for our next meeting and will bring a bunch of kegs with him. Unfortunately, they are now much harder to get, so the price has gone up to \$20 apiece—still much cheaper than people can get them anywhere else.

TOM'S TIDBITS

I just purchased 6 cases of 16-oz. beer bottles for \$1.50 a case from Allied Beverage Distributing Company at 1380 E. 5th Avenue, if anyone is interested.

—Tom Jones

MEETING NOTICE

*Thursday
May 8, 7 p.m.*

*Hoster Brewing Co.
550 S. High Street*

*Bring Enough Beer
for Everyone to Sample
(3-4 bottles suggested)*

USING SPENT-GRAINS IN BREAD MACHINES

by Bonni Katona

Bread and beer use many of the same ingredients—yeast, grain and liquid—so it seems only fitting that spent grains from an all-grain mash should be recycled into a loaf of bread. The finished products (bread and beer) are perfect companions for an evening of beer tasting.

For the past several months I've been on a mission to find spent-grain bread recipes suitable for use in a bread machine (since I now own three of them). All of the recipes I've found are for the traditional method of mixing and hand kneading the dough. That's too much like w-o-r-k, and I've taken it upon myself to improvise and experiment to adapt these recipes for use in bread machines.

Rule 1—Know Thy Bread Machine Capacity

The average bread machine makes a 1.5-lb. loaf of bread. Smaller ones make a 1-lb. loaf and larger ones make a 2-lb. loaf. If you use a recipe for a 1-lb. loaf and put it in a larger-capacity machine, your loaf may not rise as high as you'd expected. However, it is *not* recommended that you double a 1-lb. recipe for use in a 2-lb. machine—the results may be a loaf that rises too much and sticks to every part of the inside of the machine (Please don't ask me how I know this—just reread the end of the last paragraph!).

Rule 2—Identify a Good Bread Dough Ball

As your machine proceeds with the mixing and kneading process, the dough ball should take on a certain appearance so that you know it is not too dry or too liquid. My latest bread machine came with a video tape that shows a good dough ball. If too dry, add liquid an ounce at a time. If too liquid, add flour a tablespoon at a time.

Rule 3—Substitute Beer For Other Liquids

Most recipes call for water, milk, or both. You may substitute beer for any liquid. The bread won't necessarily taste like beer, but the flavor will be greatly enhanced. Homebrew is best, but you can substitute any type of beer. The beer does not have to be flat. You may need an extra ounce or two of liquid when using darker beers. Also, if using wet spent grains, you may need to *reduce* your liquid by 1-2 ounces.

Rule 4—Add 1/2 Cup of Wet Spent Grains

I found a pattern among recipes in that 1 cup of wet spent grains were used for a recipe that makes

two 1-lb. loaves of bread. I add 1/2 cup of the grains in addition to any other ingredients. This produces a loaf of bread with a coarser texture than breads without the spent grains. *Brew Your Own* magazine suggests using 3/4 cup of dried spent grains for two 1-lb. loaves and increasing the water if using traditional (manual) bread-making methods.

Rule 5—Enjoy Different Grain Flavors

The light grains used to make a wit beer will give your bread an entirely different flavor than the grains used for a porter or a stout. The darker grains will yield roasted or toasted characteristics. Spent grains may be frozen for use later. Package them in small quantities. Fresh spent grains will keep covered in your refrigerator for four days.

Recipes

Here are a couple of tried-and-true recipes. The Oatmeal Porter Bread is a favorite with the regulars at Como Hour(s), where I usually show up with loaves made in two bread machines. (By the way, if anyone is interested in buying my "R2D2" bread machine, which does a nice job of kneading and rising but not baking, let me know.)

I'll be happy to include more bread machine recipes in future issues of *The Grain Mill* if there are requests for them.

Easter Sunday French Bread

1 cup light-colored beer
1/2 cup wet spent grains
3 cups bread flour
1-1/2 tsp. salt
1 pkg. or 2-1/4 tsp. dry yeast

Load your machine with the above ingredients in the order listed, select French bread cycle, and start. Just before the baking cycle, brush top of loaf with 1 egg white combined with 2 Tbs. water for glaze. *NOTE: This recipe is probably a 1-lb. loaf, but it worked just fine in my 1.5-lb. bread machine.*

Oatmeal Porter Bread

8-10 oz. porter
1-1/4 tsp. salt
2 Tbs. honey
1-1/2 Tbs. butter or margarine
2/3 cup quick-cooking oats
2-1/2 cups bread flour
1/2 cup wet spent grains (optional)
1 pkg. or 2-1/4 tsp. dry yeast

Load your machine with the above ingredients in the order listed, select basic bread cycle, and start.

QUERY OF THE MONTH

Tom Jones asked:

If I would have a stuck fermentation, what should I do to get my fermentation started again?

Cameron Begg Replied:

Possible Causes:

1. Deoxygenated wort.

Get out your trusty Midwestern "gas hatchet". Turn on just the oxygen, not the acetylene, stick the nozzle into the beer and bubble away for a few minutes. A slightly more civilised approach might be to buy an aquarium air pump and porous stone. (One of those setups that blows a cloud of tiny bubbles into the water.) Sterilize the bits and pieces that will be in direct contact with your beer and think carefully about the source of the air which will be blown through your beer. Do you need a HEPA filter? If you are very careful it may be possible to gently shake the CO₂ out of the beer and then repeatedly blow air into the head space and shake to dissolve some of it.

2. Yeast strain not able to ferment in high ethanol concentrations.

Find out what are the limits of the strain of yeast you used. If you suspect that your yeast has quit when you are trying to make a very strong ale or barley wine, repitch with one of the special strains designed to work at extreme ethanol levels. Winemakers know about this stuff.

3. Missing an essential nutrient.

Again this is more likely in winemaking than brewing, but a quick fix is to boil some yeast in water to break it down, then cool it and add it to the fermenter.

4. Overheated fermentation

It is possible, particularly if fermenting large volumes of beer in a heat insulating container (thick polyethylene for example) or in a warm place, to have the heat of fermentation go into thermal runaway. This means that the heat produced by the yeast slicing up the sugars into CO₂, ethanol and so on cannot escape quickly enough and the temperature of the beer increases until the yeast is killed. You could cool it down and repitch the yeast, but it probably won't taste very good. Invest in a thermometer for next time.

5. The fermentation is not actually stuck.

Sometimes a wort will appear to be stuck but in actual fact it never started to ferment properly. Reasons are usually low temperature for that particular strain of yeast and/or insufficient yeast pitched or

yeast not actively fermenting when pitched or a combination of the above. That is why it makes such good sense to always make a yeast starter.

Ron Phillips Replied:

In one word, Prevention. It is much easier to prevent a stuck fermentation than to correct one. While people will go on and on about adding yeast nutrient or energizer, rousing the yeast, repitching with a more attenuative (e.g. champagne) yeast, and (dare I even say it?) aerating the already fermenting beer, none of these measures are necessary if the following precautions are taken:

1. Pitch a sufficient quantity of healthy yeast.

The amount needed will vary depending on the initial gravity of the wort (recommended quantities can be found in any brewing book). Using liquid yeast without an additional starter (just using the swelled "smack pack") is an example of severe underpitching. This does not mean that a stuck fermentation will always happen if you do this, just that it is much more likely to occur. Anyone who attempts to ferment a high gravity beer without making a starter is begging for an incomplete fermentation.

2. Aerate the (chilled) wort.

The importance of aerating the wort before the onset of fermentation cannot be overstated. The current issue of *Brewing Techniques* contains an excellent article on the use of oxygen by yeast. Without getting too technical, dissolved oxygen allows a faster, more vigorous fermentation with higher attenuation. Also, even a little oxygen helps. So shake, rattle, and roll that carboy, splash that wort into your bucket, or use a mechanical aerating system to give your yeast a good start.

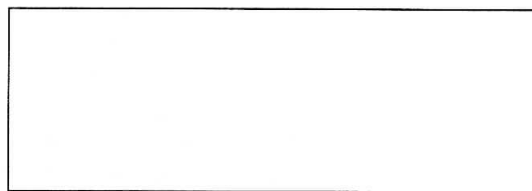
These two factors are by no means the "magic bullet" for all fermentation problems (the importance of proper sanitation, wort composition, and fermentation temperature should not be overlooked). However, if the above guidelines are followed, most instances of incomplete fermentation can be avoided.

Here's the next Query:

Tom Jones asks:

Is there a sanitizer solution that would kill the unwanted bacteria almost right away instead of waiting 20 minutes and not be an iodine type of solution that stains and possibly be safe for stainless steel?

Please email replies to the Editor at katona.3@osu.edu. All replies will be compiled in the next issue of *The Grain Mill*.



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MARK YOUR CALENDARS

President's Message <i>by Geoff Larsen</i>	1
Meeting Announcement	1
Kegs For Sale at Meeting	2
Tom's Tidbits <i>by Tom Jones</i>	3
Using Spent Grains in Bread Machines <i>by Bonni Katona</i>	2
Query of the Month	3

May 8, 7 p.m. SODZ Meeting
Hoster Brewing Co.

June 7 Club All-Grain Brew
Wes & Pam Raynor's House, Newark

June 20 *Entry Forms Due*
Ohio State Fair Homebrew Competition

July 12	Club Picnic
Exact Location TBA	

July 17-19 **AHA Natl. Convention**
Cleveland

July 24-25 *Deliver Homebrew*
Ohio State Fair Homebrew Competition

August 9 *Beer and Sweat '97*
Howard Johnson's, Springdale

*Locations subject to change
with notice.*