

Porter – An Introduction

By Jeremy Cagle

In England in the 1700's, brewers used the Parti-Gyle system to brewing. This means that they would mash in the grains with a certain grain-to-water ratio and then drain the entire mash tun for a first running, which was the strongest of the three beers made. This process was repeated until the third runnings or the "small beer" was drained. All were sold for different amounts based on the alcohol content (Which I am assuming was a estimate because they did not have the technology to test this). The first "porters" were made at the taverns where the bar tenders would mix from two to six different beers to get a beer that resembled what the early porters tasted like.

The first porter that was made was really no special process or recipe. One brewer decided to combine all the runnings instead of brewing them separate and then mixing them at the tavern from the separate casks. He called it "Entire Butt" and sold quite a bit of it. The beers back then were made using mostly all brown malt and in many cases only brown malt.

This is why the brown porter profile says no roasted barley because this style is based on the original recipes before they had the technology to make the Black or Patent malt. This malt is called Black Paten because the process to make it was a patented process that allowed the brewers flexibility in their brewing as well a higher efficiency due to the fact that they could use more pale malt and less brown malt (which they found to be much less efficient once the hydrometer was invented). This is where the styles diverged. With the invention of Black malt, the process and recipes of porters changed and so too did the taste. This change-over happened around the decline of the popularity of porter.

So I decided to make my recipe more of an authentic porter than a late history porter. I decided to toast my own malt (about 30% of the grain bill, notes are below) and to use only chocolate malt in the recipe for the dark malt. I also decided to add 8% smoked malt to match the (probably) smokey taste in the early porters that came from the old technology of the Kiln process. Now don't jump out of your seat on the amount. I used 1 lb of fresh wyerman smoked malt and 1 lb of old wyerman smoked malt. So I probably got the smoke amounting to 1.5 lbs of fresh smoked malt. Below is the recipe that I used and I will keep you posted as to how it came out. I did have some equipment issues but that is for another email.

I want to clear up the dark grain issue. Basically everyone who gave there ideas was correct. Greg mentioned that chocolate malt should be use for porters. This is true...for brown porters. Tony said he uses Black patent (or roasted barley). He is also correct...this is a robust porter. Because of the history of porter and the breakthroughs in the technology of grain roasting, there is a distinction between the two.

Hope you enjoyed the topic for this month.

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ProMash Brewing Session - Recipe Details Printout

Recipe Specifics

Batch Size (GAL): 11.00

Wort Size (GAL): 11.00

Total Grain (LBS): 24.00

Anticipated OG: 1.061 Plato: 14.95

Anticipated SRM: 41.0

Anticipated IBU: 39.1

Brewhouse Efficiency: 78 %

Wort Boil Time: 90 Minutes

Actual OG: 1.061 Plato: 14.95

Actual FG: 1.012 Plato: 3.07

Alc by Weight: 5.05 by Volume: 6.46 From Measured Gravities.

AD! F: 79.5 RDF 66.2 Apparent & Real Degree of Fermentation.

Actual Mash System Efficiency: 77 %

Anticipated Points From Mash: 60.91

Actual Points From Mash: 60.31

Grain/Extract/Sugar

<u>%</u>	<u>Amount</u>	<u>Name</u>	<u>Origin</u>	<u>Potential</u>	<u>SRM</u>
52.1	12.50 lbs.	Pale Malt (2-row)	Great Britain	1.038	32
5.0	6.00 lbs.	Brown Malt	Great Britain	1.032	70
8.3	2.00 lbs.	Smoked (Bamberg)	Germany	1.037	9
6.3	1.50 lbs.	Chocolate Malt	Great Britain	1.034	475
4.2	1.00 lbs.	Crystal 60L	America	1.034	60
4.2	1.00 lbs.	Crystal 130L	Great Britain	1.033	130

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Potential represented as SG per pound per gallon.

Hops

<u>Amount</u>	<u>Name</u>	<u>Form</u>	<u>Alpha</u>	<u>IBU</u>	<u>Boil Time</u>
2.00 oz.	Goldings - E.K.	Whole	6.60	25.5	60 min.
1.50 oz.	Goldings - E.K.	Whole	6.60	9.7	30 min.
2.00 oz.	Fuggle	Whole	5.00	3.9	10 min.

Yeast

White Labs WLP005 British Ale

Mash Schedule

Mash Type: Single Step

Heat Type: Direct

Qts Water Per LBS Grain: 1.08 Total Qts: 26.00

Grain Temp: 80 F

Dough In Temp: 0 Time: 0

Saccharification Rest Temp: 153 Time: 60

Mash-out Rest Temp: 170 Time: 15

Sparge Temp: 170 Time: 30

Runnings Stopped At: 1.012 SG 3.07 Plato

Mash Notes

Brown malt was roasted in the oven as follows: 6 lbs of grain was placed in various cookie sheets on top of Al foil at 1/2 inch depth. The temperature was put at 220 F and held for 30 mins to ensure uniform temp. Then the Temperature was raised to 300 F for 1 hour. Then the Temperature was raised to 350 for 35 mins. Results - All grain except the top tray came out uniform in color, taste, and appearance of the inner starch. The top tray seem to have gotten roasted more underneath the top layer of grain. Heat from the tray caused the grain to toast heavily. Approx 1.5 lbs of grain was toasted to this degree.