

BREWSHEET v2.0 (2010-06-17)

Batch			
Brew Name:	For Peat's Sake Smoked Porter		
Bottle Top Code:	1.053	Calories per Pint:	175
Estimated OG:	1.013	Actual OG:	1.052
Estimated FG:	1.013	Actual FG:	1.018
Estimated IBU:	40	Actual IBU:	43
Estimated SRM:	33	Actual SRM:	32
Brew Date:	09/18/10	Collected (gal):	5.20
Rack Date:	10/03/10	Racked (gal):	
Bottle Date:	10/03/10	Bottled (gal):	5.00

BJCP Style Guidelines	
Style:	Robust Porter
Code:	12B
OG:	1.048-1.065
FG:	1.012-1.016
IBU:	25.0-50.0
SRM:	22.0-35.0
ABV:	4.8-6.0%
CO2:	1.8-2.5

Inventory	
Bottles:	
Gallons:	
Date Checked:	

Efficiency	
Brewhouse:	73%
Batch Size:	71%
Into Boiler:	88%
Into Fermenter:	67%

Yeast Strain	
Yeast Strain:	White Labs WLP007 (English Ale)
Type:	English Ale
Attenuation (%):	70-80%
Actual Attenuation (%):	86%
Fermentation Temp (F):	65-70F
Flocculation:	medium-high

Yeast Amounts	
Cell Count (billions):	204
Vials (White Labs/Wyeast):	1.7
Dry Yeast (g):	10
Starter Volume (mL):	1000
DME Required (oz):	3.50
Vials Required (w/ Starter):	1.6

ON BREW DAY	
Heat 3.66 gallons of strike water to 165F	
Add grain and mash at 151F for 60 minutes	
Mash-out with 2.12 gallons at 210F, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 4.12 gallons)	
Add 3.64 gallons at 183F to lauter tun and sparge	
Vorlauf and collect second runnings (approx. 3.64 gallons)	
Boil for a total of 90 minutes with the following hop schedule:	
1.25 oz. Fuggie (US) @30 minute(s)	
0.75 oz. Fuggie (US) @30 minute(s)	
0.25 oz. Willamette @30 minute(s)	
0.5 oz. Kent Golding @30 minute(s)	
0.25 oz. Fuggie (US) @2 minute(s)	
0.25 oz. Willamette @2 minute(s)	

Summary	
For Peat's Sake Smoked Porter	

Batch Size:	5.50 gal (7.76 gal preboil)
Estimated OG:	1.053 SG (actual: 1.052 SG)
Estimated FG:	1.013 SG (actual: 1.018 SG)
Estimated IBU:	40 (Tinseth; actual: 43)
Estimated Color:	31 SRM (actual: 32 SRM)
Brewhouse Efficiency:	73% (actual: 71%)
Boil Time:	90 minutes
Grains:	
4.75#	Pale Malt (2-Row) US (42.22%)
3.25#	Rauch malt (28.89%)
1.00#	Peated malt (8.89%)
0.50#	De-bittered black malt (4.44%)
0.50#	Caramel/Crystal 40L (4.44%)
0.50#	Caramel/Crystal 60L (4.44%)
0.50#	Chocolate Malt (4.44%)
0.25#	Flaked oats (2.22%)

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	4.75	1.036	0.023	2.0	42.22%
Rauch malt	3.25	1.037	0.016	4.0	28.89%
Peated malt	1.00	1.038	0.005	5.0	8.89%
De-bittered black malt	0.50	1.030	0.002	413.0	4.44%
Caramel/Crystal 40L	0.50	1.034	0.002	40.0	4.44%
Caramel/Crystal 60L	0.50	1.034	0.002	60.0	4.44%
Chocolate Malt	0.50	1.028	0.002	350.0	4.44%
Flaked oats	0.25	1.033	0.001	2.2	2.22%

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Fuggie (US)	5.1%	1.25	60	19.5	38.46%
Fuggie (US)	5.1%	0.75	30	9.0	23.08%
Willamette	4.8%	0.25	30	2.8	7.69%
Kent Golding	7.2%	0.50	30	8.5	15.38%
Fuggie (US)	5.1%	0.25	2	0.3	7.69%
Willamette	4.8%	0.25	2	0.3	7.69%

Brewing			
Batch Size (gal):	5.50	Estimated First Runnings (gal):	4.12
Total Grain Weight (lbs):	11.25	Desired Sparge Temperature (F):	170
Grain Temperature (F):	81	Sparge Water (gal):	3.64
Mash Ratio (qt/lb):	1.30	Sparge Water Temperature (F):	183
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal):	7.76
Total Water Needed (gal):	9.42	Boil Time (min):	90
Desired Mash Temperature (F):	151	Evaporation Rate (%):	13%
Strike Water (gal):	3.66	Estimated Evaporation Loss (gal):	1.51
Trub Loss (gal):	1.68	Volume Left in Kettle (gal):	0.00
Grain Absorption (gal):	1.41	Actual Evaporation Rate (%):	19%
Mash-out Temperature (F):	150	Actual Evaporation Loss (gal):	2.30
Mash-out Water (gal):	2.12		

Gravity		Collections	
Potential OG:	1.073	First Runnings (gal):	4.40
OG:	1.049	SG of First Runnings:	1.046
OG Temperature (F):	83	SG Temperature (F):	129
Corrected OG:	1.052	Corrected SG:	1.059
SG at Racking:		Second Runnings (gal):	3.85
SG Temperature (F):		SG of Second Runnings:	1.012
Corrected SG:		SG Temperature (F):	148
FG:	1.016	Corrected SG:	1.030
FG Temperature (F):	76	Estimated Preboil SG:	1.045
Corrected FG:	1.018	Preboil Volume (gal):	8.25
Potential ABV (%):	7.0%	SG of Preboil Volume:	1.034
Actual ABV (%):	4.5%	SG Temperature (F):	114
IBU to Gravity Ratio:	0.83	Corrected SG:	1.043

Diacetyl Rest		Carbonation	
Target Fermentation Completion:	75%	CO2 Volume:	2.20
Target SG for Diacetyl Rest:	1.023	Bottling Temperature (F):	
		Priming Sugar (oz):	
		DME (oz):	
CO2 Released During Fermentation (g):	661.50	Forced Carbonation (lbs):	

Notes	
Essentially a really smoky (and especially peaty) porter.	09/30: 1.017 SG; nice smoke that gets more pronounced in the aftertaste.
The goal is to have it reminiscent of the Laphroaig 10 y.o. Islay single malt scotch.	Not too much peat, so maybe next time omit the smoke or reduce it and seriously increase the peat.
5# bag of 2-row pale was slightly light so instead of 5.5 lb I could only use 4.75 lb.	10/03: smoke more pronounced now.
That may affect the smoke/peat, adjusted hop schedule accordingly.	10/14: Nice carbonation in the keg, although a little low; nice smoke and peat; the toast comes in the aftertaste along with the biting bitterness.
Didn't quite hit my mash-in temp of 152 so went with 151.	
First runnings refrac = 14.1 (1.058).	
Second runnings refrac = 6.8 (1.027).	
Preboil refrac = 10.6 (1.043).	
Collected refrac = 12.4 (1.050).	
I think the temp of my samples need to be <115F for accuracy in SG readings.	

Extra Variables	
12 oz. Bottles Required:	51
Primary Fermentation Temp. (F):	66
Secondary Fermentation Temp (F):	66

Hops:	
1.25 oz. Fuggie (US) (5.1%) @60 min	
0.75 oz. Fuggie (US) (5.1%) @30 min	
0.25 oz. Willamette (4.8%) @30 min	
0.50 oz. Kent Golding (7.2%) @30 min	
0.25 oz. Fuggie (US) (5.1%) @2 min	
0.25 oz. Willamette (4.8%) @2 min	
Yeast:	
White Labs WLP007 (English Ale) (English Ale)	
Mash/Sparge Schedule:	
Single Infusion, 151F; Batch Sparge	
Mash for 60 min at 151F w/ 3.66 gal of water at 165F	
Mashout w/ 2.12 gal of water at 210F; hold for 10 min	
Batch sparge w/ 3.64 gal of water at 183F; hold for 10 min	
Fermentation Schedule:	
Primary Fermentation: 15 days @66F	
Secondary Fermentation: 0 days @66F	