BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	Appleton Porter		
Brew Date:	2014 February 9	Collected (gal):	11.00
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2014 February 22	Kegged/Bottled (gal):	10.00
Estimated		**Actual**	
ABV (%):	4.6%	ABV (%):	4.4%
OG (SG):	1.050	OG (SG):	1.048
FG (SG):	1.015	FG (SG):	1.014
IBU:	26.7	IBU:	27.3
SRM:	25.1	SRM:	25.1
IBU/Gravity Ratio:	0.53	IBU/Gravity Ratio:	0.57

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	12.90	1.036	0.030	2.0	57.28%
Munich Malt 10L	4.00	1.035	0.009	10.0	17.76%
British carastan	1.00	1.035	0.002	34.0	4.44%
Caramel/Crystal 90L	1.00	1.034	0.002	90.0	4.44%
Chocolate Malt	0.60	1.028	0.001	350.0	2.66%
Roasted barley	0.60	1.028	0.001	450.0	2.66%
Flaked oats	2.42	1.033	0.005	2.2	10.75%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Northdown (UK)	P	0.95	60	5.0%	7.5	32.20%
Challenger (UK)	P	1.50	60	7.0%	16.5	50.85%
Challenger (UK)	P	0.50	15	7.0%	2.7	16.95%

Design Notes

Batch Variables and Calculations	
Batch Size (gal):	11.00
Grain Temperature (F):	60
Total Grain Weight (lbs):	22.52
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	158
Strike Water (gal):	9.74
Strike Temperature (F):	176
Mash Ratio (qts/lb):	1.73
Grain Absorption (gal):	2.82
Mash Volume (gal):	11.54
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	6.78
First Runnings (gal):	6.40
First Runnings Gravity (Brix):	12.15
First Runnings Gravity (SG):	1.047
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	6.32
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	6.79
Second Runnings (gal):	6.50
Second Runnings Gravity (Brix):	6.00
Second Runnings Gravity (SG):	1.023
Estimated Preboil Volume (gal):	13.57
Estimated Preboil Gravity (Brix):	9.05
Preboil Volume (gal):	12.90
Preboil Gravity (Brix):	10.60
Preboil Gravity (SG):	1.041
Extraction Efficiency (%):	67%
Boil	
Boil Time (min):	70
Estimated Evaporation Loss (gal):	1.46
Hop Absorption (gal):	0.07
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	0.67
Actual Evaporation Loss (gal):	0.78
Original Gravity (Brix):	12.28
Batch Size Efficiency (%):	67%
Actual Efficiency (%):	67%
Fermentation	
Primary Fermentation (days):	14
Primary Fermentation Temperature (F):	68
Gravity After Primary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Secondary Fermentation (days):	3
Secondary Fermentation Temperature (F):	32
Gravity After Secondary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Tertiary Fermentation (days):	
Tertiary Fermentation Temperature (F):	
Final Gravity (SG):	1.016
Temperature of Reading (F):	49
Corrected SG:	1.014
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	159
12 oz. Bottles Required:	102
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	2.10
Priming Sugar (oz):	
DME (oz):	
Forced Carbonation (lbs):	

System Variables	
Brewhouse Efficiency (%):	70%
Volume in Hoses (gal):	0.22
Volume in Wort Chiller (gal):	0.19
Volume in HERMS Coil (gal):	0.25
Mash/Lauter Tun Deadspace (gal):	0.14
Strike to Sparge Volume Ratio (%):	50%
Trub Loss (gal):	0.16
FWH IBU Factor (%):	10%
Strike Temperature Factor (F):	7
Sparge Temperature Factor (F):	4
Estimated Evaporation Rate (gal/hr):	1.25
Leaf Hop Absorption Ratio (qts/oz):	0.40
Pellet Hop Absorption Ratio (qts/ oz):	0.10
Cooling Losses (%):	4%
Hydrometer Correction (SG):	-0.001

BJCP Style Guidelines	
Style:	Brown Porter
Code:	12A
OG:	1.040-1.052
FG:	1.008-1.014
IBU:	18.0-35.0
SRM:	20.0-30.0
ABV:	4.0-5.4%
CO2:	1.7-2.5

Yeast Strain	
Yeast Strain:	Fermentis Safale S-04 (Dry Ale)
Type:	Dry Ale
Attenuation (%):	65-75%
Actual Attenuation (%):	70%
Fermentation Temp (F):	59-75F
Flocculation:	medium-high

Required Amounts	
Cell Count (billions):	386
Vials (White Labs/Wyeast):	
Dry Yeast (g):	19.3

Yeast Starter/Slurry	
Vials (White Labs/Wyeast):	
Date Yeast Produced:	
Yeast Viability (%):	
Yeast Growth Rate:	
Yeast Innoculation Rate (million/ml):	
Starter Volume Required (ml);	
DME Required (oz):	
Yeast slurry concentration (billion/ml):	2.5
Non-yeast Percentage (%):	20%
Yeast Slurry Required (ml):	

User Variables	

Batch Scaling				
Desired OG:	1.045	Total Weight (lbs):		20.14
Batch Size (gal):	11.00	Total Bill:		100.00%
Brewhouse Efficiency (%):	70%			
Grain	**Pounds**	**Potential**	**Color**	**% Bill**
Pale Malt (2-Row) US	12.89	1.036	2.0	64.00%
Munich Malt 10L	4.03	1.035	10.0	20.00%
Caramel/Crystal 60L	2.01	1.034	60.0	10.00%
Chocolate Malt	0.60	1.028	350.0	3.00%
Roasted barley	0.60	1.028	450.0	3.00%

Poundage		
Goal (lbs):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
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Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Needed (lbs | oz.f_oz):		

Hydrometer Correction		
SG:	1.048	
Temperature (F):	65	
Corrected SG:	1.048	

Gravity Calculator			
Brix:	12.20	12.28	
Specific Gravity:	1.047	1.048	
Degrees Plato:	11.71	11.78	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

2/22: kegged first batch (to test pepper additions to second batch later).
1.016 FG (4.1% ABV).
Quite creamy (oatmeal?) aroma that seems a bit out of place.
Almost sweet aroma (hints of butterscotch?); hints of roast underneath.
Flavor is similar to aroma (but subdued) for a short second; then gets roasty and delicious.
Bitterness is good with little astringency.
Aroma seems to subdue with a few more sips; flavor gets better as well.
The plan is to carbonate and test pints with a variety of peppers.
Once settled, keg the second batch and add the selected peppers to it.
3/1: renamed to Harry Porter (from Appleton Porter) because of the caramel/butterscotch like aromas and initial flavors.
3/4: second batch has no hint of diacetyl!
Will most likely leave the second batch as is and add peppers to the first.
3/13: Removed first batch from fridge and put at room temp to see if yeast can clean up.
3/16: kegged second batch.
1.014 FG (4.4% ABV).
Aroma is slight roast with malt and caramel; flavor is big roast with biscuit and bread.
Bitterness comes in appropriately and leaves an aftertaste of roastiness; delicious!
Let's hope the first batch fixes itself!

Renamed to Appleton Porter since second batch is good.