BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	Hoppy Little Redhead		
Brew Date:	2014 September 7	Collected (gal):	10.50
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2014 October 10	Kegged/Bottled (gal):	9.95
Estimated		**Actual**	
ABV (%):	5.5%	ABV (%):	6.6%
OG (SG):	1.057	OG (SG):	1.057
FG (SG):	1.015	FG (SG):	1.006
IBU:	54.5	IBU:	51.8
SRM:	14.8	SRM:	14.3
IBU/Gravity Ratio:	0.96	IBU/Gravity Ratio:	0.91

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	16.00	1.036	0.040	2.0	70.73%
Maris Otter Malt	2.87	1.038	0.008	4.0	12.70%
Caramel/Crystal 60L	1.75	1.034	0.004	60.0	7.74%
Carapils/Dextrine	1.75	1.033	0.004	2.0	7.74%
British black patent	0.25	1.027	0.000	525.0	1.11%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Simcoe	L	1.75	fwh	13.7%	37.4	17.95%
Simcoe	L	1.00	15	13.7%	9.6	10.26%
Centennial	L	0.50	15	10.8%	3.8	5.13%
Amarillo	L	0.50	15	10.4%	3.7	5.13%
Simcoe	L	1.00	0	13.7%	0.0	10.26%
Centennial	L	0.50	0	10.8%	0.0	5.13%
Amarillo	L	0.50	0	10.4%	0.0	5.13%
Simcoe	P	2.00	dry	12.2%	0.0	20.51%
Centennial	P	1.00	dry	9.9%	0.0	10.26%
Amarillo	P	1.00	dry	8.7%	0.0	10.26%

Design Notes

Going for an India Red Ale.

Batch Variables and Calculations	
Batch Size (gal):	10.00
Grain Temperature (F):	82
Total Grain Weight (lbs):	22.62
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	152
Strike Water (gal):	9.38
Strike Temperature (F):	167
Mash Ratio (qts/lb):	1.66
Grain Absorption (gal):	2.83
Mash Volume (gal):	11.19
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	6.41
First Runnings (gal):	7.00
First Runnings Gravity (Brix):	17.00
First Runnings Gravity (SG):	1.066
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	5.95
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	6.42
Second Runnings (gal):	5.85
Second Runnings Gravity (Brix):	8.20
Second Runnings Gravity (SG):	1.032
Estimated Preboil Volume (gal):	12.83
Estimated Preboil Gravity (Brix):	12.99
Preboil Volume (gal):	12.85
Preboil Gravity (Brix):	13.20
Preboil Gravity (SG):	1.051
Extraction Efficiency (%):	81%
Boil	
Boil Time (min):	60
Estimated Evaporation Loss (gal):	1.26
Hop Absorption (gal):	0.58
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	0.75
Actual Evaporation Loss (gal):	0.75
Original Gravity (Brix):	14.66
Batch Size Efficiency (%):	70%
Actual Efficiency (%):	74%
Fermentation	
Primary Fermentation (days):	14
Primary Fermentation Temperature (F):	65
Gravity After Primary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Secondary Fermentation (days):	5
Secondary Fermentation Temperature (F):	65
Gravity After Secondary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Tertiary Fermentation (days):	3
Tertiary Fermentation Temperature (F):	32
Final Gravity (SG):	1.008
Temperature of Reading (F):	40
Corrected SG:	1.006
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	184
12 oz. Bottles Required:	101
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	1.90
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):	1.26
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:	American IPA
Code:	14B
OG:	1.056-1.075
FG:	1.010-1.018
IBU:	40.0-70.0
SRM:	6.0-15.0
ABV:	5.5-7.5%
CO2:	1.5-2.3

Yeast Strain	
Yeast Strain:	Danstar American West Coast (Dry Ale)
Type:	Dry Ale
Attenuation (%):	70-78%
Actual Attenuation (%):	89%
Fermentation Temp (F):	60-70F
Flocculation:	high
Required Amounts	
Cell Count (billions):	394
Vials (White Labs/Wyeast):	
Dry Yeast (g):	19.8
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:	1.055	Total Weight (lbs):	22.13
Batch Size (gal):	10.00	Total Bill:	100.00%
Brewhouse Efficiency (%):	70%		

Grain	Pounds	Potential	Color	% Bill
Pale Malt (2-Row) US	18.37	1.036	2.0	83.00%
Caramel/Crystal 60L	1.77	1.034	60.0	8.00%
Carapils/Dextrine	1.77	1.033	2.0	8.00%
British black patent	0.22	1.027	525.0	1.00%

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

Hydrometer Correction		
SG:	1.056	
Temperature (F):	79	
Corrected SG:	1.057	

Gravity Calculator			
Brix:	14.00	14.66	
Specific Gravity:	1.054	1.057	
Degrees Plato:	13.34	13.94	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

9/7: Changed boil time from 90 to 60 after heating strike (so 9.75 instead of 9.4 gal).
15 min hops added at 5 (to make up for the whirlpool)
0 min hops added after the whirlpool (to make up for it)
9/26: dry hopped; still some krausen present.
10/10: kegged; first batch is 1.006 FG!
Nice and citrusy on the nose with a hint of pine and malt; flavor is much more hoppy and clean
with a hint of malt – and just the right amount of bitterness; delicious!
Second batch is essentially the same (any differences are extremely minor).
A hint of creaminess came out again (the Centennial?)