BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	Hoppy Little Redhead 2.0		
Brew Date:	2014 November 9	Collected (gal):	10.50
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2014 December 3	Kegged/Bottled (gal):	9.75
Estimated		**Actual**	
ABV (%):	5.4%	ABV (%):	5.3%
OG (SG):	1.055	OG (SG):	1.047
FG (SG):	1.014	FG (SG):	1.007
IBU:	48.7	IBU:	49.9
SRM:	15.0	SRM:	14.5
IBU/Gravity Ratio:	0.88	IBU/Gravity Ratio:	1.06

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	16.50	1.036	0.042	2.0	74.72%
Red Wheat	1.50	1.039	0.004	1.5	6.79%
British carastan	1.98	1.035	0.005	34.0	8.97%
Carapils/Dextrine	1.75	1.033	0.004	2.0	7.92%
British black patent	0.35	1.027	0.001	525.0	1.59%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Simcoe	L	1.75	fwh	13.7%	37.8	12.73%
Simcoe	L	2.00	5	13.7%	7.8	14.55%
Amarillo	L	1.00	5	10.4%	3.0	7.27%
Simcoe	L	0.63	0	13.7%	0.0	4.58%
Simcoe	L	1.37	0	11.9%	0.0	9.96%
Amarillo	L	0.60	0	10.4%	0.0	4.36%
Amarillo	P	0.40	0	4.7%	0.0	2.91%
Simcoe	P	4.00	dry	12.2%	0.0	29.09%
Amarillo	P	2.00	dry	4.7%	0.0	14.55%

Design Notes

Going for an India Red Ale.

Batch Variables and Calculations	
Batch Size (gal):	10.00
Grain Temperature (F):	65
Total Grain Weight (lbs):	22.08
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	152
Strike Water (gal):	9.78
Strike Temperature (F):	169
Mash Ratio (qts/lb):	1.77
Grain Absorption (gal):	2.76
Mash Volume (gal):	11.54
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	6.88
First Runnings (gal):	6.80
First Runnings Gravity (Brix):	14.50
First Runnings Gravity (SG):	1.056
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	6.41
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	6.88
Second Runnings (gal):	6.50
Second Runnings Gravity (Brix):	6.90
Second Runnings Gravity (SG):	1.027
Estimated Preboil Volume (gal):	13.75
Estimated Preboil Gravity (Brix):	10.79
Preboil Volume (gal):	13.30
Preboil Gravity (Brix):	10.90
Preboil Gravity (SG):	1.042
Extraction Efficiency (%):	71%
Boil	
Boil Time (min):	60
Estimated Evaporation Loss (gal):	2.01
Hop Absorption (gal):	0.75
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	1.03
Actual Evaporation Loss (gal):	1.03
Original Gravity (Brix):	12.12
Batch Size Efficiency (%):	60%
Actual Efficiency (%):	63%
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):	1.009
Temperature of Reading (F):	39
Corrected SG:	1.007
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	153
12 oz. Bottles Required:	99
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):	2.01
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 (%):	86%
Fermentation Temp (F):	60-70F
Flocculation:	high

Required Amounts	
Cell Count (billions):	385
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

Brewing Notes

11/23: dry hopped (changed Simcoe from 2 to 4 oz and Amarillo from 1 to 2 oz).
12/3: kegged.
First batch is 1.0085@39F=1.007 FG; beautiful citrus aroma, quite fresh; flavor is light, crisp, citrus, and quite bitter and dry; hop flavor lingers deliciously for a while!
Second batch is exactly the same as the first!
I did notice some of the creaminess come through once the beer warmed slightly; what is it?!
Consider going with 52% 2-row, 40% Munich, and darker crystal (total 8%).

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):	16.50	
Amount (lbs | oz.f_oz):	2	10.12
Amount (lbs | oz.f_oz):	2	6.52
Amount (lbs | oz.f_oz):	0	11.22
Amount (lbs | oz.f_oz):	2	6.73
Amount (lbs | oz.f_oz):	2	7.70
Amount (lbs | oz.f_oz):	2	12.13
Amount (lbs | oz.f_oz):	2	9.52
Amount (lbs | oz.f_oz):		8.06
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):	0	0.00

Hydrometer Correction		
SG:	1.048	
Temperature (F):	58	
Corrected SG:	1.047	

Gravity Calculator			
Brix:	14.00	12.12	
Specific Gravity:	1.054	1.047	
Degrees Plato:	13.34	11.63	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	