BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	The Jeremiah Johnson		
Brew Date:	2013 March 16	Collected (gal):	5.50
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2013 April 5	Kegged/Bottled (gal):	5.00
Estimated		**Actual**	
ABV (%):	5.8%	ABV (%):	5.0%
OG (SG):	1.060	OG (SG):	1.059
FG (SG):	1.016	FG (SG):	1.021
IBU:	20.3	IBU:	20.6
SRM:	44.3	SRM:	44.3
IBU/Gravity Ratio:	0.34	IBU/Gravity Ratio:	0.35

Grain	Pounds	Potential	SG Share	Color	% Bill
Northwestern Pale Ale malt	9.00	1.036	0.041	2.8	67.31%
Roasted barley	1.16	1.028	0.004	450.0	8.68%
Vienna Malt	1.16	1.036	0.005	3.5	8.68%
Victory Malt	0.58	1.034	0.003	25.0	4.34%
Flaked oats	0.58	1.033	0.002	2.2	4.34%
British black patent	0.39	1.027	0.001	525.0	2.92%
Lactose	0.50	1.033	**0.003**	0.0	3.74%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Glacier	P	1.22	60	5.6%	19.7	82.99%
Willamette	P	0.25	5	4.8%	0.7	17.01%

Design Notes

Targets: 1.057 OG, 5.0% ABV, 20 IBUs; use WLP007.
Add 0.5# lactose @60min.
FG estimate will be off because lactose is not fermentable.
Chill wort to 67F before pitching.

Batch Variables and Calculations	
Batch Size (gal):	5.50
Grain Temperature (F):	71
Total Grain Weight (lbs):	13.37
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	156
Strike Water (gal):	5.65
Strike Temperature (F):	173
Mash Ratio (qts/lb):	1.69
Grain Absorption (gal):	1.67
Mash Volume (gal):	6.72
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	3.84
First Runnings (gal):	3.70
First Runnings Gravity (Brix):	16.80
First Runnings Gravity (SG):	1.065
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	3.37
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	3.84
Second Runnings (gal):	3.98
Second Runnings Gravity (Brix):	6.40
Second Runnings Gravity (SG):	1.025
Estimated Preboil Volume (gal):	7.68
Estimated Preboil Gravity (Brix):	11.41
Preboil Volume (gal):	7.68
Preboil Gravity (Brix):	11.80
Preboil Gravity (SG):	1.046
Extraction Efficiency (%):	76%
Boil	
Boil Time (min):	60
Estimated Evaporation Loss (gal):	1.33
Hop Absorption (gal):	0.04
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	1.33
Actual Evaporation Loss (gal):	1.33
Original Gravity (Brix):	15.15
Batch Size Efficiency (%):	70%
Actual Efficiency (%):	70%
Fermentation	
Primary Fermentation (days):	14
Primary Fermentation Temperature (F):	67
Gravity After Primary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Secondary Fermentation (days):	21
Secondary Fermentation Temperature (F):	70
Gravity After Secondary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Tertiary Fermentation (days):	3
Tertiary Fermentation Temperature (F):	32
Final Gravity (SG):	1.023
Temperature of Reading (F):	38
Corrected SG:	1.021
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	198
12 oz. Bottles Required:	51
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	2.20
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):	1.33
Leaf Hop Absorption Ratio (qts/oz):	0.20
Pellet Hop Absorption Ratio (qts/ oz):	0.10
Cooling Losses (%):	4%
Hydrometer Correction (SG):	-0.001

BJCP Style Guidelines	
Style:	Oatmeal Stout
Code:	13C
OG:	1.048-1.065
FG:	1.010-1.018
IBU:	25.0-40.0
SRM:	22.0-40.0
ABV:	4.2-5.9%
CO2:	2.0-2.4

Yeast Strain	
Yeast Strain:	Danstar American West Coast (Dry Ale)
Type:	Dry Ale
Attenuation (%):	70-78%
Actual Attenuation (%):	65%
Fermentation Temp (F):	60-70F
Flocculation:	high

Required Amounts	
Cell Count (billions):	229
Vials (White Labs/Wyeast):	
Dry Yeast (g):	11.5

Yeast Starter/Slurry	
Vials (White Labs/Wyeast):	1
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:	1.057	Total Weight (lbs):		12.88
Batch Size (gal):	5.50	Total Bill:		100.00%
Brewhouse Efficiency (%):	70%			
Grain	**Pounds**	**Potential**	**Color**	**% Bill**
Northwestern Pale Ale malt	9.01	1.036	2.8	70.00%
Roasted barley	1.16	1.028	450.0	9.00%
Vienna Malt	1.16	1.036	3.5	9.00%
Victory Malt	0.58	1.034	25.0	4.50%
Flaked oats	0.58	1.033	2.2	4.50%
British black patent	0.39	1.027	525.0	3.00%

Poundage		
Goal (lbs):	9.00	
Amount (lbs | oz.f_oz):	2	5.60
Amount (lbs | oz.f_oz):	1	14.48
Amount (lbs | oz.f_oz):	1	9.57
Amount (lbs | oz.f_oz):	1	6.50
Amount (lbs | oz.f_oz):	2	5.78
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):	-1	6.07

Hydrometer Correction		
SG:	1.059	
Temperature (F):	66	
Corrected SG:	1.059	

Gravity Calculator			
Brix:	13.20	15.15	
Specific Gravity:	1.051	1.059	
Degrees Plato:	12.62	14.38	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

3/16: forgot to take into account the lactose when calculating OG; so a bit higher than planned.
Adjusted hops to keep ~20 IBUs.
4/2: cold crashed.
4/5: kegged; gorgeous aroma of roast and coffee and a hint of cream.
Flavor is divine! :P Creamy and full of roast and coffee with a hint of residual sweetness that's not cloying; very slight bitterness and an aftertaste of oatmeal.