BREWSHEET v3.4 (2014-12-14)

user input
calculated

Brew			
Name:	Doormat APA		
Brew Date:	2015 April 4	Collected (gal):	10.70
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2015 April 17	Kegged/Bottled (gal):	10.00
Estimated		**Actual**	
ABV (%):	4.2%	ABV (%):	4.4%
OG (SG):	1.040	OG (SG):	1.041
FG (SG):	1.008	FG (SG):	1.007
IBU:	33.2	IBU:	33.8
SRM:	4.7	SRM:	4.8
IBU/Gravity Ratio:	0.83	IBU/Gravity Ratio:	0.82

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	13.00	1.036	0.030	2.0	74.29%
Vienna Malt	3.50	1.036	0.008	3.5	20.00%
Caramel/Crystal 20L	1.00	1.035	0.002	20.0	5.71%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Cascade	P	2.00	fwh	6.4%	24.2	29.63%
Cascade	P	2.25	10	6.4%	9.0	33.33%
Cascade	P	2.15	0	6.4%	0.0	31.85%
Cascade	P	0.35	0	8.2%	0.0	5.19%

Design Notes

Pitch BRY-97 in one batch and Nottingham in the other.

Batch Variables and Calculations	
Batch Size (gal):	11.00
Grain Temperature (F):	69
Total Grain Weight (lbs):	17.50
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	148
Strike Water (gal):	8.91
Strike Temperature (F):	163
Mash Ratio (qts/lb):	2.04
Grain Absorption (gal):	2.19
Mash Volume (gal):	10.31
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	6.58
First Runnings (gal):	7.15
First Runnings Gravity (Brix):	13.40
First Runnings Gravity (SG):	1.052
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	6.11
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	6.58
Second Runnings (gal):	6.00
Second Runnings Gravity (Brix):	6.00
Second Runnings Gravity (SG):	1.023
Estimated Preboil Volume (gal):	13.16
Estimated Preboil Gravity (Brix):	10.02
Preboil Volume (gal):	13.15
Preboil Gravity (Brix):	9.50
Preboil Gravity (SG):	1.037
Extraction Efficiency (%):	77%
Boil	
Boil Time (min):	60
Estimated Evaporation Loss (gal):	0.95
Hop Absorption (gal):	0.17
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	1.25
Actual Evaporation Loss (gal):	1.25
Original Gravity (Brix):	10.58
Batch Size Efficiency (%):	72%
Actual Efficiency (%):	70%
Fermentation	
Primary Fermentation (days):	14
Primary Fermentation Temperature (F):	66
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):	1.007
Temperature of Reading (F):	39
Corrected SG:	1.007
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	134
12 oz. Bottles Required:	102
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	2.45
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):	0.95
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 Pale Ale
Code:	10A
OG:	1.045-1.060
FG:	1.010-1.015
IBU:	30.0-45.0
SRM:	5.0-14.0
ABV:	4.5-6.0%
CO2:	2.2-2.7

Yeast Strain	
Yeast Strain:	Danstar Nottingham (Dry Ale)
Type:	Dry Ale
Attenuation (%):	75-85%
Actual Attenuation (%):	83%
Fermentation Temp (F):	57-70F
Flocculation:	high

Required Amounts	
Cell Count (billions):	311
Vials (White Labs/Wyeast):	
Dry Yeast (g):	15.6
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:	1.040	Total Weight (lbs):		17.48
Batch Size (gal):	11.00	Total Bill:		100.00%
Brewhouse Efficiency (%):	70%			
Grain	**Pounds**	**Potential**	**Color**	**% Bill**
Pale Malt (2-Row) US	13.11	1.036	2.0	75.00%
Vienna Malt	3.50	1.036	3.5	20.00%
Caramel/Crystal 20L	0.87	1.035	20.0	5.00%

Poundage		
Goal (lbs):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
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:	1.039	
Temperature (F):	69	
Corrected SG:	1.041	

Gravity Calculator			
Brix:		10.58	
Specific Gravity:		1.041	
Degrees Plato:		10.21	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

4/4: All went according to plan.
4/14: BRY-97 batch: 1.008 SG (4.4% ABV); nice hoppy aroma, peppery, hoppy, clean flavor; bitterness is good but sharp; wonderful finish.
Notty batch is the same SG; aroma not as pronounced; flavor is similar but perhaps more neutral with less hops; bitterness is less noticeable; finish is wonderful (better than the BRY-97).
BRY-97 accentuates the hops in both aroma and flavor much more than Notty!
Cold crashed.
4/17: BRY-97 batch: 1.007 FG (4.4% ABV); hop and malt in the aroma; flavor is crisp, clean, hoppy, with nice bitterness; malty and clean finish.
Notty batch: same FG; aroma is much less hoppy and more malty; flavor is more crisp and feels drier; more malt in the flavor; feels less bitter; finish is not as long; more like a lager than the BRY.
It's also much more cloudy than the BRY (which is near crystal clear).
4/26: BRY batch is carbonated; great hop aroma and flavor; once hop aroma fades, quite a bit of diacetyl is present, even when pretty cold.
4/27: Same characteristics as previous; moved to room temps to try and get rid of diacetyl.