BREWSHEET v2.5 (2011-11-13)

Batch			
Brew Name:	Doormat APA		
Bottle Top Code:		Calories per Pint:	143
Estimated OG:	1.045	Actual OG:	1.043
Estimated FG:	1.009	Actual FG:	1.011
Estimated IBU:	31	Actual IBU:	30
Estimated SRM:	6	Actual SRM:	6
Brew Date:	12/02/11	Collected (gal):	5.50
Rack Date:	12/17/11	Racked (gal):	5.10
Bottle Date:	01/13/12	Bottled (gal):	5.00

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

Inventory	
Bottles:	
Gallons:	
Date Checked:	

Efficiency	
Brewhouse:	70%
Batch Size:	68%
Into Boiler:	80%
Into Fermenter:	71%

Yeast Strain	
Yeast Strain:	Danstar Nottingham (Dry Ale)
Type:	Dry Ale
Attenuation (%):	75-85%
Actual Attenuation (%):	74%
Fermentation Temp (F):	57-70F
Flocculation:	high

Yeast Amounts	
Cell Count (billions):	173
Vials (White Labs/Wyeast):	1.5
Dry Yeast (g):	9
Starter Volume (mL):	
DME Required (oz)	
Vials Required (w/ Starter):	

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	7.00	1.036	0.032	2.0	68.29%
Vienna Malt	2.25	1.036	0.010	3.5	21.95%
British carastan	0.50	1.035	0.002	34.0	4.88%
Rice hulls	0.50	1.000	0.000	0.0	4.88%

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Cascade	5.5%	1.00	60	18.2	40.00%
Cascade	5.5%	0.50	30	7.0	20.00%
Cascade	5.5%	0.50	15	4.5	20.00%
Cascade	5.5%	0.50	5	1.8	20.00%

Brewing			
Batch Size (gal):	5.50	Estimated First Runnings (gal):	3.53
Total Grain Weight (lbs):	10.25	Desired Sparge Temperature (F):	170
Grain Temperature (F):	67	Sparge Water (gal):	4.41
Mash Ratio (qts/lb):	1.25	Sparge Water Temperature (F):	182
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal):	7.94
Total Water Needed (gal):	9.47	Boil Time (min):	60
Desired Mash Temperature (F):	150	Evaporation Rate (gal/hr):	1.69
Strike Water (gal):	3.20	Estimated Evaporation Loss (gal):	1.69
Strike Temperature (F):	170	Trub Loss (gal):	0.75
Grain Absorption (gal):	1.28	Volume Left in Kettle (gal):	0.25
Mash-out Temperature (F):	150	Actual Evaporation Rate (gal/hr):	1.50
Mash-out Water (gal):	1.86	Actual Evaporation Loss (gal):	1.50

Gravity		Collections	
Potential OG:	1.064	First Runnings (gal):	4.15
OG:	1.043	SG of First Runnings:	1.049
OG Temperature (F):	60	SG Temperature (F):	60
Corrected OG:	1.043	Corrected SG:	1.049
SG at Racking:	1.011	Second Runnings (gal):	3.85
SG Temperature (F):	58	SG of Second Runnings:	1.017
Corrected SG:	1.011	SG Temperature (F):	60
FG:	1.012	Corrected SG:	1.017
FG Temperature (F):	38	Estimated Preboil SG:	1.034
Corrected FG:	1.011	Preboil Volume (gal):	8.00
Estimated ABV (%):	4.7%	SG of Preboil Volume:	1.035
Actual ABV (%):	4.2%	SG Temperature (F):	60
IBU to Gravity Ratio:	0.71	Corrected SG:	1.035

Diacetyl Rest		Carbonation	
Target Fermentation Completion:		CO2 Volume:	2.45
Target SG for Diacetyl Rest:		Bottling Temperature (F):	
		Priming Sugar (oz):	
Fermentation		DME (oz):	
CO2 Released During Fermentation (g):	659.76	Forced Carbonation (lbs):	

ON BREW DAY

Heat 3.2 gallons of strike water to 170F
Add grain and mash at 150F for 60 minutes
Mash-out with 1.86 gallons at 210F, mix and hold for 10 minutes
Vorlauf and collect first runnings (approx. 3.53 gallons)
Add 4.41 gallons at 182F to lauter tun and sparge
Vorlauf and collect second runnings (approx. 4.41 gallons)
Boil for a total of 60 minutes with the following hop schedule:
1 oz. Cascade @60 minute(s)
0.5 oz. Cascade @30 minute(s)
0.5 oz. Cascade @15 minute(s)
0.5 oz. Cascade @5 minute(s)

Notes

Strike: 5.75 gal (~2.24 mash ratio); sparge: 4.47 gal.
Ferment for 2 weeks at 60F; lager for 4 weeks at 32F.
Mash started at 153F and went down to 150F during recirculation.
12/17: nice and dry with "lager" characteristics (as usual).
1/13: very dry and clean; lagerish; slightly bitter and peppery.

User Variables	
12 oz. Bottles Required:	51
Primary Fermentation Temp. (F):	60
Secondary Fermentation Temp (F):	32
FWH IBU Factor (%):	10%
Strike Temperature Factor (F):	7
Sparge Temperature Factor (F):	4
Mash Time (min):	60
Specific Gravity (Brix):	11.2
Specific Gravity (SG):	1.043

Summary

Doormat APA

Batch Size: 5.50 gal (7.94 gal preboil)
Estimated OG: 1.045 SG (actual: 1.043 SG)
Estimated FG: 1.009 SG (actual: 1.011 SG)
Estimated IBUs: 31 (Tinseth; actual: 30)
Estimated Color: 6 SRM (actual: 6 SRM)
Brewhouse Efficiency: 70% (actual: 68%)
Boil Time: 60 minutes

Grains:
7.00# Pale Malt (2-Row) US (2.0L) (68.29%)
2.25# Vienna Malt (3.5L) (21.95%)
0.50# British carastan (34.0L) (4.88%)
0.50# Rice hulls (0.0L) (4.88%)

Hops:
1.00 oz Cascade (5.5%) @60 min
0.50 oz Cascade (5.5%) @30 min
0.50 oz Cascade (5.5%) @15 min
0.50 oz Cascade (5.5%) @5 min

Yeast:
Danstar Nottingham (Dry Ale)

Mash/Sparge Schedule:
Single Infusion, 150F, 60 min; Batch Sparge

Fermentation Schedule:
Primary Fermentation: 15 days @60F
Secondary Fermentation: 27 days @32F