

BREWSHEET v2.3 (2011-02-26)

Batch			
Brew Name:	Doormat APA		
Bottle Top Code:		Calories per Pint:	166
Estimated OG:	1.048	Actual OG:	1.050
Estimated FG:	1.010	Actual FG:	1.013
Estimated IBU:	30	Actual IBU:	32
Estimated SRM:		Actual SRM:	6
Brew Date:	10/09/11	Collected (gal):	9.60
Rack Date:	10/22/11	Racked (gal):	8.00
Bottle Date:	10/22/11	Bottled (gal):	8.00

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:	73%
Into Boiler:	77%
Into Fermenter:	69%

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

Yeast Amounts	
Cell Count (billions):	344
Vials (White Labs/Wyeast):	2.9
Dry Yeast (g):	17
Starter Volume (mL):	
DME Required (oz)	
Vials Required (w/ Starter):	

ON BREW DAY	
Heat 6.09 gallons of strike water to 169F	
Add grain and mash at 152F for 60 minutes	
Mash-out with 3.18 gallons at 210F, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 6.59 gallons)	
Add 6.95 gallons at 182F to lautur tun and sparge	
Vorlauf and collect second runnings (approx. 6.95 gallons)	
Boil for a total of 90 minutes with the following hop schedule:	
1.75 oz. Cascade @60 minute(s)	
1.0 oz. Cascade @30 minute(s)	
1.25 oz. Cascade @15 minute(s)	
1.0 oz. Cascade @5 minute(s)	

Summary	
Doormat APA	

Batch Size: 10.25 gal (13.54 gal preboil)	
Estimated OG: 1.048 SG (actual: 1.050 SG)	
Estimated FG: 1.010 SG (actual: 1.013 SG)	
Estimated IBUs: 30 (Finseth; actual: 32)	
Estimated Color: 6 SRM (actual: 6 SRM)	
Brewhouse Efficiency: 70% (actual: 73%)	
Boil Time: 90 minutes	

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	14.00	1.036	0.034	2.0	71.79%
Vienna Malt	4.50	1.036	0.011	3.5	23.08%
British carastan	1.00	1.035	0.002	34.0	5.13%

Brewing		
Batch Size (gal):	10.25	Estimated First Runnings (gal): 6.59
Total Grain Weight (lbs):	19.50	Desired Sparge Temperature (F): 170
Grain Temperature (F):	77	Sparge Water (gal): 6.95
Mash Ratio (qts/lb):	1.25	Sparge Water Temperature (F): 182
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal): 13.54
Total Water Needed (gal):	16.23	Boil Time (min): 90
Desired Mash Temperature (F):	152	Evaporation Rate (gal/hr): 1.69
Strike Water (gal):	6.09	Estimated Evaporation Loss (gal): 2.54
Strike Temperature (F):	169	Trub Loss (gal): 0.75
Grain Absorption (gal):	2.44	Volume Left in Kettle (gal): 0.00
Mash-out Temperature (F):	152	Actual Evaporation Rate (gal/hr): 1.87
Mash-out Water (gal):	3.18	Actual Evaporation Loss (gal): 2.80

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Cascade	5.3%	1.75	60	16.0	35.00%
Cascade	5.3%	1.00	30	7.0	20.00%
Cascade	5.3%	1.25	15	5.7	25.00%
Cascade	5.3%	1.00	5	1.8	20.00%

Gravity		Collections	
Potential OG:	1.068	First Runnings (gal):	6.30
OG:	1.050	SG of First Runnings:	1.059
OG Temperature (F):	60	SG Temperature (F):	60
Corrected OG:	1.050	Corrected SG:	1.059
SG at Racking:	1.013	Second Runnings (gal):	6.85
SG Temperature (F):	72	SG of Second Runnings:	1.023
Corrected SG:	1.014	SG Temperature (F):	60
FG:	1.013	Corrected SG:	1.023
FG Temperature (F):	54	Estimated Preboil SG:	1.040
Corrected FG:	1.013	Preboil Volume (gal):	13.15
Estimated ABV (%):	5.0%	SG of Preboil Volume:	1.041
Actual ABV (%):	4.9%	SG Temperature (F):	60
IBU to Gravity Ratio:	0.63	Corrected SG:	1.041

Diacetyl Rest		Carbonation	
Target Fermentation Completion:		CO2 Volume:	2.45
Target SG for Diacetyl Rest:		Bottling Temperature (F):	
		Priming Sugar (oz):	
		DME (oz):	
		Forced Carbonation (lbs):	
Fermentation			
CO2 Released During Fermentation (g):	1344.02		

Notes	
Strike: 9.25 gal (~1.9 mash ratio); sparge: 6.75 gal.	
Make half of this non-alcoholic	
10/9: 5.2 gal + 4.4 gal (NA)	
10/19: cold crashed 5.2 gal.	
Boiled NA (half at a time) at 180F for 30 mins.	
Started in oven but took too long; so started on stove until 180F then continued in oven.	
Cooled via CF chiller and cold crashed.	
Process took about 3 hours!	
NA batch was 1.014 SG.	
10/22: NA batch smelled a tad sweet and was 1.016 FG (3 gal) at kegging	
Higher FG makes sense since a little was boiled off for NA process.	
Calling the NA version "Malcolm's Brew!"	
11/6: Doormat and Malcolm's Brew and essentially identical in flavor and bitterness.	
Huge difference in aroma, particularly if warmer (Malcolm is sweeter in the aroma).	

User Variables	
12 oz. Bottles Required:	82
Primary Fermentation Temp. (F):	66
Secondary Fermentation Temp (F):	72
FW/H IBU Factor (%):	10%
Strike Temperature Factor (F):	5
Sparge Temperature Factor (F):	3
Mash Time (min):	60
Specific Gravity (Brix):	13
Specific Gravity (SG):	1.050

Yeast:	
Danstar Nottingham (Dry Ale)	

Mash/Sparge Schedule:	
Single Infusion, 152F, 60 min; Batch Sparge	
Fermentation Schedule:	
Primary Fermentation: 13 days @66F	
Secondary Fermentation: 0 days @72F	