

BREWSHEET v2.1 (2011-01-04)

Batch			
Brew Name:	Doornat APA		
Bottle Top Code:	1.040	Calories per Pint:	122
Estimated OG:	1.008	Actual OG:	1.036
Estimated FG:	1.010	Actual FG:	1.013
Estimated IBU:	41	Actual IBU:	43
Estimated SRM:	5	Actual SRM:	5
Brew Date:	01/17/11	Collected (gal):	5.42
Rack Date:	02/05/11	Racked (gal):	5.00
Bottle Date:		Bottled (gal):	

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:	73%
Batch Size:	66%
Into Boiler:	82%
Into Fermenter:	65%

Yeast Strain	
Yeast Strain:	Danstar Nottingham (Dry Ale)
Type:	Dry Ale
Attenuation (%):	75-85%
Actual Attenuation (%):	64%
Fermentation Temp (F):	57-70F
Flocculation:	high

Yeast Amounts	
Cell Count (billions):	155
Vials (White Labs/Wyeast):	1.3
Dry Yeast (g):	8
Starter Volume (mL):	0
DME Required (oz)	
Vials Required (w/ Starter):	

ON BREW DAY	
Heat 2.62 gallons of strike water to 169F	
Add grain and mash at 152F for 60 minutes	
Mash-out with 1.37 gallons at 210F, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 2.69 gallons)	
Add 5.81 gallons at 177F to lauter tun and sparge	
Vorlauf and collect second runnings (approx. 5.81 gallons)	
Boil for a total of 90 minutes with the following hop schedule:	
1.375 oz. Cascade @60 minute(s)	
0.625 oz. Cascade @30 minute(s)	
0.5 oz. Cascade @15 minute(s)	
0.5 oz. Cascade @5 minute(s)	

Summary	
Doornat APA	

Batch Size: 5.50 gal (8.50 gal preboil)	
Estimated OG: 1.040 SG (actual: 1.036 SG)	
Estimated FG: 1.008 SG (actual: 1.013 SG)	
Estimated IBU: 41 (Tinseth; actual: 43)	
Estimated Color: 5 SRM (actual: 5 SRM)	
Brewhouse Efficiency: 73% (actual: 66%)	
Boil Time: 90 minutes	

Grains:	
6.38#	Pale Malt (2-Row) US (2.0L) (76.12%)
1.63#	Vienna Malt (3.5L) (19.40%)
0.38#	British carastan (34.0L) (4.48%)

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	6.38	1.036	0.030	2.0	76.12%
Vienna Malt	1.63	1.036	0.008	3.5	19.40%
British carastan	0.38	1.035	0.002	34.0	4.48%

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Cascade	5.4%	1.38	60	25.6	45.83%
Cascade	5.4%	0.63	30	8.9	20.83%
Cascade	5.4%	0.50	15	4.6	16.67%
Cascade	5.4%	0.50	5	1.9	16.67%

Brewing	
Batch Size (gal):	5.50
Total Grain Weight (lbs):	8.39
Grain Temperature (F):	68
Mash/Lauter Deadspace (gal):	1.25
Total Water Needed (gal):	9.80
Desired Mash Temperature (F):	152
Strike Water (gal):	2.62
Strike Temperature (F):	169
Grain Absorption (gal):	1.09
Mash-out Temperature (F):	152
Mash-out Water (gal):	1.37
Estimated First Runnings (gal):	2.69
Desired Sparge Temperature (F):	170
Sparge Water (gal):	5.81
Sparge Water Temperature (F):	177
Estimated Preboil Volume (gal):	8.50
Boil Time (min):	90
Evaporation Rate (gal/hr):	1.50
Estimated Evaporation Loss (gal):	2.25
Trub Loss (gal):	0.75
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	1.54
Actual Evaporation Loss (gal):	2.31

Gravity		Collections	
Potential OG:	1.055	First Runnings (gal):	3.30
OG:	1.036	SG of First Runnings:	1.055
OG Temperature (F):	60	SG Temperature (F):	60
Corrected OG:	1.038	Corrected SG:	1.055
SG at Racking:		Second Runnings (gal):	5.18
SG Temperature (F):		SG of Second Runnings:	1.018
Corrected SG:		SG Temperature (F):	60
FG:	1.014	Corrected SG:	1.018
FG Temperature (F):	48	Estimated Preboil SG:	1.033
Corrected FG:	1.013	Preboil Volume (gal):	8.48
Potential ABV (%):	5.2%	SG of Preboil Volume:	1.029
Actual ABV (%):	3.1%	SG Temperature (F):	60
IBU to Gravity Ratio:	1.19	Corrected SG:	1.029

Diacetyl Rest		Carbonation	
Target Fermentation Completion:		CO2 Volume:	2.45
Target SG for Diacetyl Rest:		Bottling Temperature (F):	
		Priming Sugar (oz):	
		DME (oz):	
CO2 Released During Fermentation (g):	471.96	Forced Carbonation (lbs):	

User Variables	
12 oz. Bottles Required:	
Primary Fermentation Temp. (F):	66
Secondary Fermentation Temp (F):	71
FWH IBU Factor (%):	10%
Strike Temperature Factor (F):	3
Sparge Temperature Factor (F):	2
Specific Gravity (P):	9
Specific Gravity (SG):	1.036

Yeast:	
Danstar Nottingham (Dry Ale)	
Mash/Sparge Schedule:	
Single Infusion, 152F; Batch Sparge	
Mash for 60 min at 152F w/ 2.62 gal of water at 169F	
Mashout w/ 1.37 gal of water at 210F; hold for 10 min	
Batch sparge w/ 5.81 gal of water at 177F; hold for 10 min	
Fermentation Schedule:	
Primary Fermentation: 19 days @66F	

Notes	
Relatively "light" APA for Roger's wedding.	
Pitch the yeast dry (no hydration).	
Crash cool after 7-10 days, then keg.	
OG low probably due to large second runnings.	
I think I weighed the grain correctly...D	
Hopefully we get ~4% ABV.	
2/2: crashed	