

BREWSHEET v2.1 (2011-01-04)

Batch			
Brew Name:	Noble Doormat (Hallertauer)		
Bottle Top Code:	Calories per Pint:		138
Estimated OG:	1.045	Actual OG:	1.041
Estimated FG:	1.009	Actual FG:	1.014
Estimated IBU:	35	Actual IBU:	35
Estimated SRM:	6	Actual SRM:	6
Brew Date:	04/09/11	Collected (gal):	5.75
Rack Date:	05/08/11	Racked (gal):	5.00
Bottle Date:	05/08/11	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:	64%
Into Boiler:	80%
Into Fermenter:	67%

Yeast Strain	
Yeast Strain:	Danstar Nottingham (Dry Ale)
Type:	Dry Ale
Attenuation (%):	75-85%
Actual Attenuation (%):	67%
Fermentation Temp (F):	57-70F
Flocculation:	high

Yeast Amounts	
Cell Count (billions):	175
Vials (White Labs/Wyeast):	1.5
Dry Yeast (g):	9
Starter Volume (mL):	0
DME Required (oz)	
Vials Required (w/ Starter):	

ON BREW DAY	
Heat 3.09 gallons of strike water to 166F	
Add grain and mash at 152F for 60 minutes	
Mash-out with 1.61 gallons at 210F, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 3.21 gallons)	
Add 5.57 gallons at 177F to lauter tun and sparge	
Vorlauf and collect second runnings (approx. 5.57 gallons)	
Boil for a total of 90 minutes with the following hop schedule:	
1.03 oz. Hallertauer (GR) @60 minute(s)	
1.03 oz. Hallertauer (GR) @24 minute(s)	
1.03 oz. Hallertauer (GR) @16 minute(s)	
1.03 oz. Hallertauer (GR) @5 minute(s)	

Summary	
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Noble Doormat (Hallertauer)	

Batch Size: 5.50 gal (8.79 gal preboil)	
Estimated OG: 1.045 SG (actual: 1.041 SG)	
Estimated FG: 1.009 SG (actual: 1.014 SG)	
Estimated IBU: 35 (Finseth; actual: 35)	
Estimated Color: 6 SRM (actual: 6 SRM)	
Brewhouse Efficiency: 70% (actual: 64%)	
Boil Time: 90 minutes	
Grains:	
7.25# Pale Malt (2-Row) US (2.0L) (73.42%)	
2.13# Vienna Malt (3.5L) (21.52%)	
0.50# British carastan (34.0L) (5.06%)	
Hops:	
1.03 oz Hallertauer (GR) (4.3%) @60 min	
1.03 oz Hallertauer (GR) (4.3%) @24 min	
1.03 oz Hallertauer (GR) (4.3%) @16 min	
1.03 oz Hallertauer (GR) (4.3%) @5 min	

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	7.25	1.036	0.033	2.0	73.42%
Vienna Malt	2.13	1.036	0.010	3.5	21.52%
British carastan	0.50	1.035	0.002	34.0	5.06%

Brewing		
Batch Size (gal):	5.50	Estimated First Runnings (gal): 3.21
Total Grain Weight (lbs):	9.88	Desired Sparge Temperature (F): 170
Grain Temperature (F):	78	Sparge Water (gal): 5.57
Mash Ratio (qts/lb):	1.25	Sparge Water Temperature (F): 177
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal): 8.79
Total Water Needed (gal):	10.27	Boil Time (min): 90
Desired Mash Temperature (F):	152	Evaporation Rate (gal/hr): 1.69
Strike Water (gal):	3.09	Estimated Evaporation Loss (gal): 2.54
Strike Temperature (F):	166	Trub Loss (gal): 0.75
Grain Absorption (gal):	1.23	Volume Left in Kettle (gal): 0.00
Mash-out Temperature (F):	152	Actual Evaporation Rate (gal/hr): 1.77
Mash-out Water (gal):	1.61	Actual Evaporation Loss (gal): 2.65

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Hallertauer (GR)	4.3%	1.03	60	14.5	25.00%
Hallertauer (GR)	4.3%	1.03	24	9.9	25.00%
Hallertauer (GR)	4.3%	1.03	16	7.6	25.00%
Hallertauer (GR)	4.3%	1.03	5	2.9	25.00%

Gravity		Collections	
Potential OG:	1.065	First Runnings (gal):	4.35
OG:	1.041	SG of First Runnings:	1.052
OG Temperature (F):	60	SG Temperature (F):	60
Corrected OG:	1.041	Corrected SG:	1.052
SG at Racking:		Second Runnings (gal):	4.80
SG Temperature (F):		SG of Second Runnings:	1.015
Corrected SG:		SG Temperature (F):	60
FG:	1.014	Corrected SG:	1.015
FG Temperature (F):	54	Estimated Preboil SG:	1.033
Corrected FG:	1.014	Preboil Volume (gal):	9.15
Potential ABV (%):	5.9%	SG of Preboil Volume:	1.031
Actual ABV (%):	3.8%	SG Temperature (F):	60
IBU to Gravity Ratio:	0.84	Corrected SG:	1.031

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):	590.10		

Notes	
Experiment to see how noble hops change the beer (1 st of 5 brews). Equal additions for a total of ~35 IBUs. Pitch the yeast dry (no hydration). Strike was 3.25; mashout was 2.25; sparge was 4.75. Got busy kegging another brew and mash lasted an extra 30 mins; we'll see!	

User Variables	
12 oz. Bottles Required:	51
Primary Fermentation Temp. (F):	66
Secondary Fermentation Temp (F):	71
FNW/IBU Factor (%):	10%
Strike Temperature Factor (F):	2
Sparge Temperature Factor (F):	1
Mash Time (min):	60
Specific Gravity (Brix):	10.5
Specific Gravity (SG):	1.041

Yeast:	Danstar Nottingham (Dry Ale)
Mash/Sparge Schedule:	Single Infusion, 152F; Batch Sparge Mash for 60 min at 152F w/ 3.09 gal of water at 166F Mashout w/ 1.61 gal of water at 210F; hold for 10 min Batch sparge w/ 5.57 gal of water at 177F; hold for 10 min
Fermentation Schedule:	Primary Fermentation: 29 days @66F Secondary Fermentation: 0 days @71F