

BREWSHEET v2.1 (2011-01-04)

Batch			
Brew Name:	Brother Cain's IPA v2		
Bottle Top Code:		Calories per Pint:	208
Estimated OG:	1.060	Actual OG:	1.060
Estimated FG:	1.015	Actual FG:	1.030
Estimated IBU:	74	Actual IBU:	85
Estimated SRM:	15	Actual SRM:	15
Brew Date:	06/12/11	Collected (gal):	4.70
Rack Date:	06/29/11	Racked (gal):	4.00
Bottle Date:	06/29/11	Bottled (gal):	4.00

BJCP Style Guidelines	
Style:	American IPA
Code:	14B
OG:	1.056-1.075
FG:	1.010-1.018
IBU:	40.0-70.0
SRM:	6.0-15.0
ABV:	5.5-7.5%
CO2:	1.5-2.3

Inventory	
Bottles:	
Gallons:	
Date Checked:	

Efficiency	
Brewhouse:	70%
Batch Size:	70%
Into Boiler:	71%
Into Fermenter:	61%

Yeast Strain	
Yeast Strain:	Wyeast 1764 (Rogue Pacman Ale)
Type:	Rogue Pacman Ale
Attenuation (%):	72-78%
Actual Attenuation (%):	50%
Fermentation Temp (F):	60-72F
Flocculation:	medium-high

Summary	
Brother Cain's IPA v2	

Batch Size: 6.00 gal (9.82 gal preboil)	
Estimated OG: 1.060 SG (actual: 1.060 SG)	
Estimated FG: 1.015 SG (actual: 1.030 SG)	
Estimated IBUs: 74 (Finesth; actual: 85)	
Estimated Color: 14 SRM (actual: 15 SRM)	
Brewhouse Efficiency: 70% (actual: 70%)	
Boil Time: 109 minutes	
Grains:	
11.75# Maris Otter Malt (4.0L) (85.45%)	
1.00# Caramel/Crystal 75L (75.0L) (7.27%)	
1.00# British carastan (34.0L) (7.27%)	

Grain	Pounds	Potential	SG Share	Color	% Bill
Maris Otter Malt	11.75	1.038	0.052	4.0	85.45%
Caramel/Crystal 75L	1.00	1.034	0.004	75.0	7.27%
British carastan	1.00	1.035	0.004	34.0	7.27%

Brewing		
Batch Size (gal):	6.00	Estimated First Runnings (gal): 3.70
Total Grain Weight (lbs):	13.75	Desired Sparge Temperature (F): 170
Grain Temperature (F):	86	Sparge Water (gal): 6.12
Mash Ratio (qts/lb):	1.25	Sparge Water Temperature (F): 179
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal): 9.82
Total Water Needed (gal):	11.79	Boil Time (min): 109
Desired Mash Temperature (F):	159	Evaporation Rate (gal/hr): 1.69
Strike Water (gal):	4.30	Estimated Evaporation Loss (gal): 3.07
Strike Temperature (F):	179	Trub Loss (gal): 0.75
Grain Absorption (gal):	1.72	Volume Left in Kettle (gal): 0.05
Mash-out Temperature (F):	159	Actual Evaporation Rate (gal/hr): 1.76
Mash-out Water (gal):	1.37	Actual Evaporation Loss (gal): 3.20

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Magnum (GR)	12.5%	1.00	45	30.2	20.00%
Columbus	14.5%	1.00	30	29.3	20.00%
Cascade	5.3%	1.00	15	6.9	20.00%
Cascade	5.3%	1.00	10	5.1	20.00%
Cascade	5.3%	1.00	5	2.8	20.00%

Gravity		Collections	
Potential OG:	1.086	First Runnings (gal):	4.65
OG:	1.060	SG of First Runnings:	1.060
OG Temperature (F):	60	SG Temperature (F):	60
Corrected OG:	1.060	Corrected SG:	1.060
SG at Racking:	1.029	Second Runnings (gal):	4.05
SG Temperature (F):	66	SG of Second Runnings:	1.021
Corrected SG:	1.030	SG Temperature (F):	60
FG:	1.030	Corrected SG:	1.021
FG Temperature (F):	56	Estimated Preboil SG:	1.042
Corrected FG:	1.030	Preboil Volume (gal):	8.70
Potential ABV (%):	7.9%	SG of Preboil Volume:	1.042
Actual ABV (%):	4.0%	SG Temperature (F):	60
IBU to Gravity Ratio:	1.41	Corrected SG:	1.042

Diacetyl Rest		Carbonation	
Target Fermentation Completion:		CO2 Volume:	1.90
Target SG for Diacetyl Rest:		Bottling Temperature (F):	
		Priming Sugar (oz):	
		DME (oz):	
		Forced Carbonation (lbs):	

Yeast Amounts	
Cell Count (billions):	250
Vials (White Labs/Wyeast):	2.1
Dry Yeast (g):	13
Starter Volume (mL):	3000
DME Required (oz)	10.50
Vials Required (w/ Starter):	1.0

ON BREW DAY	
Heat 4.3 gallons of strike water to 179F	
Add grain and mash at 159F for 60 minutes	
Mash-out with 1.37 gallons at 210F, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 3.7 gallons)	
Add 6.12 gallons at 179F to lautur tun and sparge	
Vorlauf and collect second runnings (approx. 6.12 gallons)	
Boil for a total of 109 minutes with the following hop schedule:	
1 oz. Magnum (GR) @45 minute(s)	
1 oz. Columbus @30 minute(s)	
1 oz. Cascade @15 minute(s)	
1 oz. Cascade @10 minute(s)	
1 oz. Cascade @5 minute(s)	

User Variables	
12 oz. Bottles Required:	41
Primary Fermentation Temp. (F):	68
Secondary Fermentation Temp (F):	78
FNH IBU Factor (%):	10%
Strike Temperature Factor (F):	8
Sparge Temperature Factor (F):	5
Specific Gravity (Brix):	15.5
Specific Gravity (SG):	1.060

Notes	
First try with Pacman yeast.	
Mashout 2.25 gals at not quite boiling; sparge 4.5 gals.	
Low extract efficiency probably due to high mash temp; we'll see!	
It was an experiment (of sorts).	
Due to hop absorption, efficiency is more like 61%, SRM is 15 and IBUs are 85.	
So this might be an IBA (India Brown Ale)!	
Pacman starter smelled "weird" so decided to go with Safale US-05.	
6/26: 1.030 SG; not too sweet; nice bitterness; let's not dry hop this time.	
6/29: This tastes nice and malty with slight sweetness but the bitterness balances it.	
Not worried about 4% ABV since I figured it would happen due to mash temp.	
But it was an experiment!	

Fermentation Schedule:	
Primary Fermentation:	17 days @68F
Secondary Fermentation:	0 days @78F