

BREWSHEET v1.0 (2010-02-26)

Batch			BJCP Style Guideline			Efficiency	
Brew Name:	Hopfully IPA (HF)		Style:	American IPA		Brewhouse Efficiency:	72%
Estimated OG:	1.068	Actual OG: 1.068	Code:	14B		Efficiency (on Batch Size):	72%
Estimated FG:	1.016	Actual FG: 1.015	OG:	1.056-1.075		Efficiency into Boiler:	91%
Estimated IBU:	96.7	Actual IBU: 90.1	FG:	1.010-1.018		Efficiency into Fermenter:	77%
Estimated SRM:	7.5	Actual SRM: 7.1	IBU:	40.0-70.0			
Brew Date:	05/16/10	Collected: 5.90	SRM:	6.0-15.0			
Rack Date:	05/28/10	Racked: 5.85	ABV:	5.5-7.5%			
Bottle Date:	06/05/10	Bottles: 52	CO2:	1.5-2.3			

Grain	Pounds	Potential	Color	% Bill
Pale Malt (2-Row) US	13.00	1.036	2	89.66%
Carapils/Dextrine	0.75	1.033	2	5.17%
Caramel/Crystal 40L	0.75	1.034	40	5.17%

Hop	Alpha %	Ounces	Boil Time	IBU
Simcoe	12.2%	1.00	90	35.0
Simcoe	12.2%	0.25	60	8.2
Columbus	13.2%	0.25	60	8.8
Simcoe	12.2%	0.25	30	6.3
Columbus	13.2%	0.25	30	6.8
Simcoe	12.2%	0.75	15	12.2
Columbus	13.2%	0.75	15	13.2
Cascade	5.4%	1.20	10	6.3
Simcoe	12.2%	0.50	0	0.0
Columbus	13.2%	0.50	0	0.0
Amarillo	8.6%	0.50	dry	0.0
Cascade	5.4%	0.50	dry	0.0
Centennial	9.1%	0.50	dry	0.0
Columbus	13.2%	0.50	dry	0.0
Simcoe	12.2%	0.50	dry	0.0

Gravity		Collections	
Potential OG:	1.094	First Runnings (gal):	4.80
OG:	1.066	SG of First Runnings:	1.053
OG Temperature (F):	75	SG Temperature (F):	141
Corrected OG:	1.068	Corrected SG:	1.069
SG at Racking:	1.016	Second Runnings (gal):	3.90
SG Temperature (F):	73	SG of Second Runnings:	1.020
Corrected SG:	1.018	SG Temperature (F):	144
FG:	1.014	Corrected SG:	1.037
FG Temperature (F):	70	Preboil Volume (gal):	8.70
Corrected FG:	1.015	SG of Preboil Volume:	1.032
Potential ABV:	8.9%	SG Temperature (F):	160
Actual ABV:	6.9%	Corrected SG:	1.054

Brewing	
Batch Size (gal):	5.50
Total Grain Weight (lbs):	14.50
Grain Temperature (F):	78
Mash Ratio (qts/lb):	1.25
Mash/Lauter Deadspace (gal):	0.25
Total Water Needed (gal):	10.26
Desired Mash Temperature (F):	152
Strike Water (gal):	4.53
Strike Temperature (F):	167
Grain Absorption (gal):	1.81
Mash-out Temperature (F):	152
Mash-out Water (gal):	2.00
Estimated First Runnings (gal):	4.47
Desired Sparge Temperature (F):	168
Sparge Water (gal):	3.73
Sparge Water Temperature (F):	181
Estimated Preboil Volume (gal):	8.20
Boil Time (min):	90
Evaporation Rate (%):	13%
Estimated Evaporation Loss (gal):	1.60
Trub Loss (gal):	1.10
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (%):	13%
Actual Evaporation Loss (gal):	1.70

Yeast Strain	
Yeast Strain:	White Labs WLP001
Type:	California Ale
Attenuation:	73-80%
Fermentation Temp:	68-73F
Flocculation:	medium

User Variables	
Calories per Pint:	224
12 oz. Bottles Required:	61.2
DME for Carbonation (oz.):	4.68
Estimated Preboil SG:	1.055
Actual Attenuation (%):	77.58%
Bottle Top Code:	HF

Carbonation	
CO2 Volume:	1.90
Bottling Temperature (F):	70
Priming Sugar (oz):	3.34
Forced Carbonation (lbs):	19.2

Inventory	
Bottles Remaining:	24
Gallons Remaining:	2.25
Date Checked:	07/21/10

Diacetyl Rest	
Target Fermentation Completion:	75%
Target SG for Diacetyl Rest:	1.029

Yeast Required	
Cell Count (billions):	257
Vials (White Labs/Wyeast):	2.2
Dry Yeast (g):	13
Starter Volume (mL):	2000
DME Required (oz):	7.00
Vials Required (w/ Starter):	1.5

BREW DAY

Single Infusion Mash (with Mash-out) and Batch Sparge Brew Schedule	
Heat 4.53 gallons of mash water to 167F	
Add grain and mash at 152F for 60 minutes	
At T-40 to mash-out, heat 2 gallons of mash-out water on the stove to 210F	
At T-25 to mash-out, heat 3.73 gallons of sparge water in the kettle to 181F	
Mash-out with 2 gallons, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 4.47 gallons)	
Add 3.73 gallons to lauter tun, mix, hold for 10 minutes, and sparge	
Vorlauf and collect second runnings (approx. 3.73 gallons)	
Boil for a total of 90 minutes with the following hop schedule:	
1 oz. Simcoe @90 minute(s)	
0.25 oz. Simcoe @60 minute(s)	
0.25 oz. Columbus @60 minute(s)	
0.25 oz. Simcoe @30 minute(s)	
0.25 oz. Columbus @30 minute(s)	
0.75 oz. Simcoe @15 minute(s)	
0.75 oz. Columbus @15 minute(s)	
1.2 oz. Cascade @10 minute(s)	
0.5 oz. Simcoe @0 minute(s)	
0.5 oz. Columbus @0 minute(s)	

Notes

First time using refractometer.
 Refractometer reading of first runnings was 1.066.
 Refractometer reading of second runnings was 1.040.
 Refractometer reading of preboil volume was 1.050.
 Refractometer reading of collected volume was 1.063.
 Gentle vorlauf to center of tun was much better than on any side.
 Large hot break (8"+ of foam) when adding 90-minute hops!
 5/28: Harvested yeast cake from primary.

I prefer this version.