

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

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

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

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

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

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

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 lautur 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.