

BREWSHEET v2.3 (2011-02-26)

Batch			
Brew Name:	Hopfully IPA		
Bottle Top Code:	Calories per Pint:	195	
Estimated OG:	1.068	Actual OG:	1.058
Estimated FG:	1.016	Actual FG:	1.018
Estimated IBU:	88	Actual IBU:	88
Estimated SRM:	8	Actual SRM:	8
Brew Date:	05/24/11	Collected (gal):	5.60
Rack Date:	06/16/11	Racked (gal):	4.50
Bottle Date:	06/16/11	Bottled (gal):	4.50

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:	60%
Into Boiler:	75%
Into Fermenter:	66%

Yeast Strain	
Yeast Strain:	White Labs WLP001 (California Ale)
Type:	California Ale
Attenuation (%):	73-80%
Actual Attenuation (%):	69%
Fermentation Temp (F):	68-73F
Flocculation:	medium

Yeast Amounts	
Cell Count (billions):	280
Vials (White Labs/Wyeast):	2.4
Dry Yeast (g):	14
Starter Volume (mL):	3500
DME Required (oz):	12.25
Vials Required (w/ Starter):	1.0

ON BREW DAY	
Heat 4.84 gallons of strike water to 173F	
Add grain and mash at 152F for 60 minutes	
Mash-out with 2.53 gallons at 210F, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 5.18 gallons)	
Add 4.04 gallons at 186F to lautur tun and sparge	
Vorlauf and collect second runnings (approx. 4.04 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 oz. Cascade @10 minute(s)	
0.5 oz. Simcoe @0 minute(s)	
0.5 oz. Columbus @0 minute(s)	

Summary

Hopfully IPA	
Batch Size: 6.00 gal (9.23 gal preboil)	
Estimated OG: 1.068 SG (actual: 1.058 SG)	
Estimated FG: 1.016 SG (actual: 1.018 SG)	
Estimated IBUs: 88 (Tinseth; actual: 88)	
Estimated Color: 10 SRM (actual: 9 SRM)	
Brewhouse Efficiency: 70% (actual: 60%)	
Boil Time: 90 minutes	
Grains:	
13.50# Maris Otter Malt (4.0L) (87.10%)	
1.00# British carastan (34.0L) (6.45%)	
1.00# Carapils/Dextrine (2.0L) (6.45%)	

Grain	Pounds	Potential	SG Share	Color	% Bill
Maris Otter Malt	13.50	1.038	0.060	4.0	87.10%
British carastan	1.00	1.035	0.004	34.0	6.45%
Carapils/Dextrine	1.00	1.033	0.004	2.0	6.45%

Brewing		
Batch Size (gal):	6.00	Estimated First Runnings (gal): 5.18
Total Grain Weight (lbs):	15.50	Desired Sparge Temperature (F): 170
Grain Temperature (F):	78	Sparge Water (gal): 4.04
Mash Ratio (qts/lb):	1.25	Sparge Water Temperature (F): 186
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal): 9.23
Total Water Needed (gal):	11.41	Boil Time (min): 90
Desired Mash Temperature (F):	152	Evaporation Rate (gal/hr): 1.65
Strike Water (gal):	4.84	Estimated Evaporation Loss (gal): 2.48
Strike Temperature (F):	173	Trub Loss (gal): 0.75
Grain Absorption (gal):	1.94	Volume Left in Kettle (gal): 0.50
Mash-out Temperature (F):	152	Actual Evaporation Rate (gal/hr): 1.73
Mash-out Water (gal):	2.53	Actual Evaporation Loss (gal): 2.60

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Simcoe	11.8%	1.00	90	31.0	12.50%
Simcoe	11.8%	0.25	60	7.2	3.13%
Columbus	14.5%	0.25	60	8.9	3.13%
Simcoe	11.8%	0.25	30	5.6	3.13%
Columbus	14.5%	0.25	30	6.8	3.13%
Simcoe	11.8%	0.75	15	10.8	9.38%
Columbus	14.5%	0.75	15	13.3	9.38%
Cascade	5.3%	1.00	10	4.7	12.50%
Simcoe	11.8%	0.50	0	0.0	6.25%
Columbus	14.5%	0.50	0	0.0	6.25%
Amarillo	6.9%	0.50	dry	0.0	6.25%
Cascade	5.3%	0.50	dry	0.0	6.25%
Centennial	8.8%	0.50	dry	0.0	6.25%
Columbus	14.5%	0.50	dry	0.0	6.25%
Simcoe	11.8%	0.50	dry	0.0	6.25%

Gravity		Collections	
Potential OG:	1.097	First Runnings (gal):	5.40
OG:	1.058	SG of First Runnings:	1.060
OG Temperature (F):	60	SG Temperature (F):	60
Corrected OG:	1.058	Corrected SG:	1.060
SG at Racking:		Second Runnings (gal):	4.05
SG Temperature (F):		SG of Second Runnings:	1.025
Corrected SG:		SG Temperature (F):	60
FG:	1.018	Corrected SG:	1.025
FG Temperature (F):	57	Estimated Preboil SG:	1.045
Corrected FG:	1.018	Preboil Volume (gal):	9.45
Potential ABV (%):	8.9%	SG of Preboil Volume:	1.046
Actual ABV (%):	5.3%	SG Temperature (F):	60
IBU to Gravity Ratio:	1.51	Corrected SG:	1.046

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):	

Notes	
5/24: no time for starter so pitched 2 vials.	
Simcoe were whole leaf so adjusted accordingly (*1.15).	
Low efficiency may be due to high humidity; a lot of dough balls to remove (etc).	
6/2: nice blowoff in fridge (not fully blown off but intense fermentation).	
This is the first time I used pure O2 for 30 secs.	
6/8: dry hopped in primary.	

User Variables	
12 oz. Bottles Required:	46
Primary Fermentation Temp. (F):	66
Secondary Fermentation Temp (F):	72
FNH IBU Factor (%):	10%
Strike Temperature Factor (F):	9
Sparge Temperature Factor (F):	4
Mash Time (min):	60
Specific Gravity (Brix):	15
Specific Gravity (SG):	1.058

Yeast:	
White Labs WLP001 (California Ale)	
Mash/Sparge Schedule:	
Single Infusion, 152F; Batch Sparge	
Mash for 60 min at 152F w/ 4.84 gal of water at 173F	
Mashout w/ 2.53 gal of water at 210F; hold for 10 min	
Batch sparge w/ 4.04 gal of water at 186F; hold for 10 min	
Fermentation Schedule:	
Primary Fermentation: 23 days @66F	
Secondary Fermentation: 0 days @72F	