

## BREWSHEET v1.0 (2010-02-26)

Batch				BJCP Style Guideline		Efficiency	
Brew Name:	Citra Experiment IPA (CE)			Style:	American IPA	Brewhouse Efficiency:	68%
Estimated OG:	1.058	Actual OG:	1.061	Code:	14B	Efficiency (on Batch Size):	71%
Estimated FG:	1.014	Actual FG:	1.016	OG:	1.056-1.075	Efficiency into Boiler:	91%
Estimated IBU:	91.3	Actual IBU:	87.3	FG:	1.010-1.018	Efficiency into Fermenter:	73%
Estimated SRM:	8.0	Actual SRM:	7.9	IBU:	40.0-70.0		
Brew Date:	03/14/10	Collected:	5.60	SRM:	6.0-15.0		
Rack Date:	03/29/10	Racked:	5.35	ABV:	5.5-7.5%		
Bottle Date:	04/05/10	Bottles:	49	CO2:	1.5-2.3		

Grain	Pounds	Potential	Color	% Bill
Pale Malt (2-Row) US	12.00	1.036	2	92.31%
Caramel/Crystal 40L	1.00	1.034	40	7.69%

Hop	Alpha %	Ounces	Boil Time	IBU
Citra	12.0%	1.00	60	35.2
Citra	12.0%	2.00	15	35.0
Citra	12.0%	3.00	5	21.1
Citra	12.0%	3.00	0	0.0
Citra	12.0%	3.00	dry	0.0

Gravity		Collections	
Potential OG:	1.085	First Runnings (gal):	4.10
OG:	1.060	SG of First Runnings:	1.054
OG Temperature (F):	64	SG Temperature (F):	149
Corrected OG:	1.061	Corrected SG:	1.073
SG at Racking:	1.017	Second Runnings (gal):	3.75
SG Temperature (F):	66	SG of Second Runnings:	1.020
Corrected SG:	1.018	SG Temperature (F):	154
FG:	1.015	Corrected SG:	1.040
FG Temperature (F):	72	Preboil Volume (gal):	7.85
Corrected FG:	1.016	SG of Preboil Volume:	1.031
Potential ABV:	7.5%	SG Temperature (F):	163
Actual ABV:	5.8%	Corrected SG:	1.054

Brewing			
Batch Size (gal):	5.50	Desired Sparge Temperature (F):	168
Total Grain Weight (lbs):	13.00	Sparge Water (gal):	3.49
Grain Temperature (F):	68	Sparge Water Temperature (F):	181
Mash Ratio (qts/lb):	1.25	Estimated Preboil Volume (gal):	7.59
Mash/Lauter Deadspace (gal):	0.25	Boil Time (min):	60
Total Water Needed (gal):	9.46	Evaporation Rate (%):	13%
Desired Mash Temperature (F):	152	Estimated Evaporation Loss (gal):	0.99
Strike Water (gal):	4.06	Trub Loss (gal):	1.10
Strike Temperature (F):	168	Volume Left in Kettle (gal):	0.00
Grain Absorption (gal):	1.63	Actual Evaporation Rate (%):	15%
Mash-out Temperature (F):	151	Actual Evaporation Loss (gal):	1.15
Mash-out Water (gal):	1.91		
Estimated First Runnings (gal):	4.09		

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

User Variables	
Calories per Pint:	202
12 oz. Bottles Required:	55.9
DME for Carbonation (oz.):	4.38
Estimated Preboil SG:	1.057
Actual Attenuation (%):	72.84%
Bottle Top Code:	CE

Carbonation	
CO2 Volume:	1.90
Bottling Temperature (F):	72
Priming Sugar (oz):	3.13
Forced Carbonation (lbs):	20.1

Inventory	
Bottles Remaining:	13
Gallons Remaining:	1.22
Date Checked:	05/12/10

Diacetyl Rest	
Target Fermentation Completion:	75%
Target SG for Diacetyl Rest:	1.026

Yeast Required	
Cell Count (billions):	220
Vials (White Labs/Wyeast):	1.9
Dry Yeast (g):	12
Starter Volume (mL):	1000
DME Required (oz):	3.50
Vials Required (w/ Starter):	1.8

## BREW DAY

Single Infusion Mash (with Mash-out) and Batch Sparge Brew Schedule	
Heat 4.06 gallons of mash water to 168F	
Add grain and mash at 152F for 60 minutes	
At T-40 to mash-out, heat 1.91 gallons of mash-out water on the stove to 210F	
At T-25 to mash-out, heat 3.49 gallons of sparge water in the kettle to 181F	
Mash-out with 1.91 gallons, mix and hold for 10 minutes	
Vorlauf and collect first runnings (approx. 4.09 gallons)	
Add 3.49 gallons to lauter tun, mix, hold for 10 minutes, and sparge	
Vorlauf and collect second runnings (approx. 3.49 gallons)	
Boil for a total of 60 minutes with the following hop schedule:	
1 oz. Citra @60 minute(s)	
2 oz. Citra @15 minute(s)	
3 oz. Citra @5 minute(s)	
3 oz. Citra @0 minute(s)	

Notes	
Made with all Citra leaf hops.	
Mash started at 153F.	
Seems that at mash-out, temp not getting quite to 168F.	
Whole leaf hops probably had something to do with higher evaporation rate.	
SG on 3/25 was 1.018; too high to rack at this point.	
Aroma awesome; better after a few sniffs.	
Nice bitterness that hits you after the second sip.	
Not too shabby at this point.	
Bitterness, flavor and aroma greatly reduced at racking.	
A hit with the ladies. Very citrusy and nice bitterness.	
I might try a Simcoe, Amarillo, Citra combination next time.	