BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	Overdose IPA		
Brew Date:	2013 January 21	Collected (gal):	10.90
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2013 February 11	Kegged/Bottled (gal):	10.00

Estimated		Actual	
ABV (%):	6.3%	ABV (%):	6.8%
OG (SG):	1.065	OG (SG):	1.064
FG (SG):	1.017	FG (SG):	1.013
IBU:	59.5	IBU:	60.2
SRM:	13.7	SRM:	13.8
IBU/Gravity Ratio:	0.92	IBU/Gravity Ratio:	0.93

Grain	Pounds	Potential	SG Share	Color	% Bill
Maris Otter Malt	15.62	1.038	0.038	4.0	56.55%
Northwestern Pale Ale malt	3.75	1.036	0.009	2.8	13.58%
Munich Malt 10L	5.50	1.035	0.012	10.0	19.92%
Caramel/Crystal 75L	1.38	1.034	0.003	75.0	4.98%
British carastan	1.38	1.035	0.003	34.0	4.98%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Chinook	P	1.50	fwh	11.0%	25.8	14.29%
Chinook	P	1.00	20	11.0%	9.2	9.52%
Simcoe	L	1.00	20	11.9%	8.6	9.52%
Columbus	L	1.00	20	16.1%	11.7	9.52%
Chinook	P	1.00	2	11.0%	1.3	9.52%
Simcoe	L	1.00	2	11.9%	1.2	9.52%
Columbus	L	1.00	2	16.1%	1.6	9.52%
Chinook	P	1.00	dry	11.0%	0.0	9.52%
Simcoe	P	1.00	dry	12.2%	0.0	9.52%
Columbus	P	1.00	dry	12.9%	0.0	9.52%

Design Notes

Add 20 min hops at 10 and 2 at 2 min til end of whirlpool.
Changed leaf hop absorption ratio.

Batch Variables and Calculations	
Batch Size (gal):	11.00
Grain Temperature (F):	64
Total Grain Weight (lbs):	27.62
Mash	
Mash Time (min):	75
Desired Mash Temperature (F):	150
Strike Water (gal):	10.70
Strike Temperature (F):	168
Mash Ratio (qts/lb):	1.55
Grain Absorption (gal):	3.45
Mash Volume (gal):	12.91
Mash-out Temperature (F):	168
Estimated First Runnings (gal):	7.11
First Runnings (gal):	6.74
First Runnings Gravity (Brix):	18.25
First Runnings Gravity (SG):	1.071
Sparge	
Desired Sparge Temperature (F):	168
Sparge Water (gal):	6.64
Sparge Water Temperature (F):	172
Estimated Second Runnings (gal):	7.11
Second Runnings (gal):	7.26
Second Runnings Gravity (Brix):	9.10
Second Runnings Gravity (SG):	1.035
Estimated Preboil Volume (gal):	14.22
Estimated Preboil Gravity (Brix):	13.51
Preboil Volume (gal):	14.00
Preboil Gravity (Brix):	13.75
Preboil Gravity (SG):	1.053
Extraction Efficiency (%):	74%
Boil	
Boil Time (min):	70
Estimated Evaporation Loss (gal):	1.69
Hop Absorption (gal):	0.49
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	1.35
Actual Evaporation Loss (gal):	1.58
Original Gravity (Brix):	16.60
Batch Size Efficiency (%):	70%
Actual Efficiency (%):	69%
Fermentation	
Primary Fermentation (days):	14
Primary Fermentation Temperature (F):	66
Gravity After Primary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Secondary Fermentation (days):	6
Secondary Fermentation Temperature (F):	70
Gravity After Secondary Fermentation (SG):	1.014
Temperature of Reading (F):	68
Corrected SG:	1.014
Tertiary Fermentation (days):	3
Tertiary Fermentation Temperature (F):	32
Final Gravity (SG):	1.015
Temperature of Reading (F):	37
Corrected SG:	1.013
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	212
12 oz. Bottles Required:	102
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	1.90
Priming Sugar (oz):	
DME (oz):	
Forced Carbonation (lbs):	

System Variables	
Brewhouse Efficiency (%):	70%
Volume in Hoses (gal):	0.22
Volume in Wort Chiller (gal):	0.19
Volume in HERMS Coil (gal):	0.25
Mash/Lauter Tun Deadspace (gal):	0.14
Strike to Sparge Volume Ratio (%):	50%
Trub Loss (gal):	0.16
FWH IBU Factor (%):	10%
Strike Temperature Factor (F):	7
Sparge Temperature Factor (F):	4
Estimated Evaporation Rate (gal/hr):	1.45
Leaf Hop Absorption Ratio (qts/oz):	0.40
Pellet Hop Absorption Ratio (qts/ oz):	0.10
Cooling Losses (%):	4%
Hydrometer Correction (SG):	-0.001

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

Yeast Strain	
Yeast Strain:	Danstar American West Coast (Dry Ale)
Type:	Dry Ale
Attenuation (%):	70-78%
Actual Attenuation (%):	80%
Fermentation Temp (F):	60-70F
Flocculation:	high

Required Amounts	
Cell Count (billions):	491
Vials (White Labs/Wyeast):	
Dry Yeast (g):	24.6

Yeast Starter/Slurry	
Vials (White Labs/Wyeast):	
Date Yeast Produced:	
Yeast Viability (%):	
Yeast Growth Rate:	
Yeast Innoculation Rate (million/ml):	
Starter Volume Required (ml);	
DME Required (oz):	
Yeast slurry concentration (billion/ml):	2.5
Non-yeast Percentage (%):	20%
Yeast Slurry Required (ml):	

User Variables	

Batch Scaling				
Desired OG:	1.065	Total Weight (lbs):		27.57
Batch Size (gal):	11.00	Total Bill:		100.00%
Brewhouse Efficiency (%):	70%			
Grain	**Pounds**	**Potential**	**Color**	**% Bill**
Maris Otter Malt	19.30	1.038	4.0	70.00%
Munich Malt 10L	5.51	1.035	10.0	20.00%
Caramel/Crystal 75L	1.38	1.034	75.0	5.00%
British carastan	1.38	1.035	34.0	5.00%

Poundage		
Goal (lbs):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
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Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Amount (lbs | oz.f_oz):		
Needed (lbs | oz.f_oz):		

Hydrometer Correction		
SG:	1.014	
Temperature (F):	69	
Corrected SG:	1.014	

Gravity Calculator			
Brix:	15.80	16.60	
Specific Gravity:	1.061	1.064	
Degrees Plato:	14.96	15.67	

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

1/21: extended boil by 10 min.
Hops got stuck in out tube of kettle at beginning of whirlpool and took ~45 min to get unstuck.
Had to reheat to ~200F to sanitize hoses and CFC.
So 20 min hops were much longer; but 2 min hops were at 2min.
Could be ~80 IBUs; we'll see.
2/3: both samples at 1.014 SG (6.6% ABV, 79% attenuation).
Nice and bitter (not 80 IBUs to me) with hints of citrus like orange and mango.
Malt complexity behind the hops.
Dry hopped.
2/8: dry hopped one batch.
2/11: kegged one batch.
Citrus aroma of orange and tangerine; similar flavor with slight malt; dry and bitter.
2/16: kegged second batch; 1.014 FG (6.6% ABV, 78% attenuation).
Aroma and flavor similar to first batch; bitterness perhaps slightly higher.