

A ProMash Brewing Session Printout

Recipe:
 Brewing Date: Saturday January 09, 2010
 Head Brewer:
 Asst Brewer:

Brewer: Tim Rice
 Tim's Note: Just use the grain and hops schedule on page 2. I don't use promash for all the rest. The yeast strain could be Wyeast Bohemian (2124) or Bavarian (2206).

BJCP Style and Style Guidelines

04-C Dark Lager, Schwarzbier

Min OG: 1.046	Max OG: 1.052	
Min IBU: 22	Max IBU: 32	
Min Clr: 17	Max Clr: 36	Color in SRM, Lovibond

Recipe Specifics

Batch Size (Gal): 10.50	Wort Size (Gal): 10.50
Total Grain (Lbs): 22.08	
Anticipated OG: 1.0514	Plato: 12.71
Anticipated SRM: 20.8	
Anticipated IBU: 27.6	
Brewhouse Efficiency: 70 %	
Wort Boil Time: 90	Minutes

Actual OG: 1.0560	Plato: 13.80
Actual FG: 1.0100	Plato: 2.56

% Alc by Weight: 4.75	by Volume: 6.06	From Measured Gravities.
% ADF: 81.5	% RDF: 67.7	Apparent & Real Degree of Fermentation

(% Alcohol, %ADF and % RDF calculated from Hydrometer Readings)

Actual Mash System Efficiency: 76 %
Anticipated Points From Mash: 51.39
Actual Points From Mash: 56.00

Pre-Boil Amounts

Evaporation Rate: 10.00 % Per Hour

Raw Pre-Boil Targets - only targeted volume/gravity and evaporation rate taken into account:

Raw Pre-Boil Wort Size: 12.35 Gal
Raw Pre-Boil Gravity: 1.0437 SG 10.88 Plato

With sparge water, mash water, additional infusions, vessel losses, top-up water and evaporation rate recorded in the Water Needed Calculator:

Water Needed Pre-Boil Wort Size: 12.78 Gal
Water Needed Pre-Boil Gravity: 1.0422 SG 10.53 Plato

Formulas Used

Brewhouse Efficiency and Predicted Gravity based on Method #1, Potential Used.
 Final Gravity Calculation Based on Points.
 Hard Value of Sucrose applied. Value for recipe: 46.2100 ppppg
 % Yield Type used in Gravity Prediction: Fine Grind Dry Basis.

Color Formula Used: Morey
 Hop IBU Formula Used: Rager

Additional Utilization Used For Plug Hops: 2 %
 Additional Utilization Used For Pellet Hops: 10 %

Grain/Extract/Sugar

%	Amount	Name	Origin	Potential	Color - SRM
4.5%	1.00 lbs.	Munich Malt	Germany	1.0370	8
90.6%	20.00 lbs.	Pilsener Malt(2-Row)	Continental Europe	1.0350	1
3.4%	0.75 lbs.	Carafa	Germany	1.0300	400
1.5%	0.33 lbs.	Chocolate Malt	Great Britain	1.0340	475

Potential represented as SG per pound per gallon.

Hops

Amount	Name	Form	Alpha	IBU	Boil Time
1.00 oz.	Mt. Hood	Pellet	3.70	2.9	20 min.
1.00 oz.	Northern Brewer	Pellet	10.60	24.7	60 min.

Yeast

Mash Schedule

Mash Type: Single Step
 Heat Type: Direct

Grain Lbs: 22.08
 Water Qts: 28.71 - Before Additional Infusions
 Water Gal: 7.18 - Before Additional Infusions

Qts Water Per Lbs Grain: 1.30

Tun Thermal Mass: 0.00
 Grain Temp: 71 F

Dough In Temp: 0 Time: 0
 Saccharification Rest Temp: 0 Time: 0
 Mash-out Rest Temp: 0 Time: 0
 Sparge Temp: 0 Time: 0

Runnings Stopped At: 1.0560 SG 13.80 Plato

Total Mash Volume Gal: 8.94 - After Additional Infusions

All temperature measurements are degrees Fahrenheit.

Efficiency Specifics

Recipe Efficiency Setting: 70 %

With sparge water, mash water, additional infusions, vessel losses, top-up water and evaporation rate recorded in the Water Needed Calculator:

Target Volume (Gal):	12.78	Plato:	10.53
Estimated OG:	1.0422		

Raw Pre-Boil Targets - only targeted volume/gravity and evaporation rate taken into account:

Target Volume (Gal):	12.35	Plato:	10.88
Estimated OG:	1.0437		

Post-Boil Targets:

Target Volume (Gal):	10.50	Plato:	12.71
Estimated OG:	1.0514		

Recorded Actuals - Measurement Taken In Kettle:

Recorded Volume (Gal):	10.50	Plato:	13.80
Recorded OG:	1.0560		

At 100 % extraction from the maximum mash potential:

Total Points:	73.41
Points From Mash:	73.41
Points From Extract/Sugar:	0.00

With the recipe efficiency setting, you should have achieved:

Total Points:	51.39
Points From Mash:	51.39
Points From Extract/Sugar:	0.00

Actuals achieved were:

Actual Points From Mash:	56.00
Actual Mash System Efficiency:	76 %

Fermentation Specifics

Pitched From:	Starter
Amount Pitched:	0 mL
Lag Time:	0.00 hours

Primary Fermenter:	Glass
Primary Type:	Closed
Days In Primary:	0
Primary Temperature:	68 degrees F

Bottling/Kegging Specifics

Bottling Date: Sunday April 25, 2010
Desired Carbonation Level: 2.30 Volumes CO2
Fermentation Temperature: 39 F
DME Scalar: 2.00

Amount In Bottles: 6.00 Gallons
Days Conditioned: 0
Carbonation Method: Natural
Priming Medium Used: DME
Amount of Priming Used: 3.86 Oz
Amount of Liquid Added: 0.14 Gal

Amount Kegged: 5.00 Gallons
Days Conditioned: 0
Carbonation Method: Forced
Carbonation Temperature: 42 F
Pressure Used: 14.00 Psi