

56: RAWR!

Author: Sean Terrill
Date: 09/06/11
Category: 14 – India Pale Ale (IPA)
Subcategory: C – Imperial IPA



Kettle Volume: 6.96 gal (S.G.: 1.067) Efficiency: 63.83%
Boil Duration: 1.25 hr Attenuation: 80.8%
Evaporation: 0.75 gal Evap/Hour: 0.6 gal
Water Volume Added: 0.0 gal
Final Volume: 6.0 gal (S.G.: 18.9 °P)

Ingredients:

17.0 lb (85.0%) Cargill Special Pale
2.0 lb (10.0%) Cargill Munich
1.0 lb (5.0%) Medium Crystal
30.0 g (25.0%) Summit (18.0%) – added during boil, boiled 60 min
30.0 g (25.0%) Chinook (13.0%) – added during boil, boiled 20 min
30.0 g (25.0%) Chinook (13.0%) – added during boil, boiled 10 min
30.0 g (25.0%) Chinook (13.0%) – steeped after boil
3.0 L WYeast 1272 American Ale II

Water:

9.1 gal Silverton, CO
4.0 g Gypsum (Calcium Sulfate)
2.0 g Calcium Chloride (Calcium Chloride (anhydrous))

Style:

Recipe	Guideline
Original Gravity: 18.9 °P	17.03 – 21.54
Terminal Gravity: 3.82 °P	2.56 – 5.08
Color: 12.17 °SRM	8.0 – 15.0
Alcohol: 8.34%	7.5% – 10.0%
Bitterness: 59.5	60.0 – 120.0



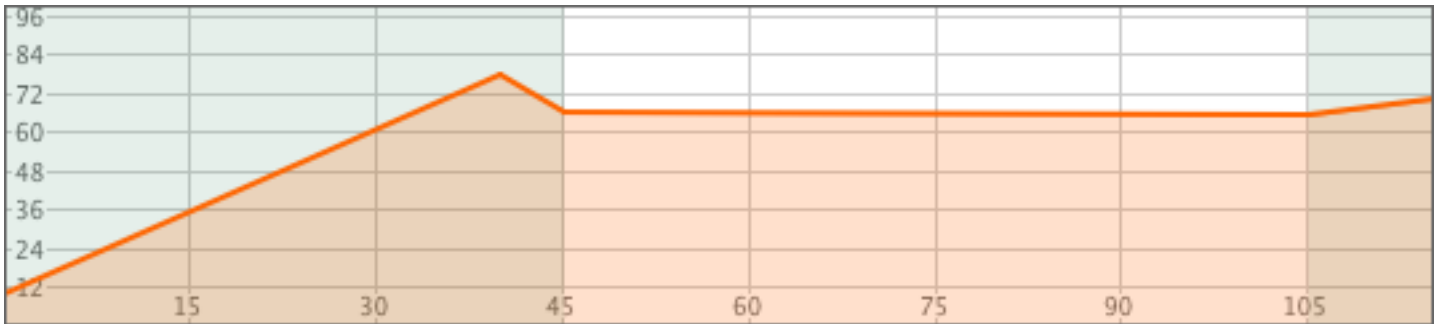
Analysis:

Apparent	Real	Weight	Calories
Original Extract: 18.9 °P	18.9 °P	Alcohol: 31.34 g	216.27 kcal
Attenuation: 80.8%	64.4%	Carbs: 31.83 g	120.96 kcal
Terminal Extract: 3.82 °P	6.73 °P	Protein: 2.23 g	8.91 kcal
% Alcohol: 8.34% ABV	6.53% ABW		Total: 346.14 kcal

Schedule:

Ambient Air: 10 °C
Source Water: 4 °C
Elevation: 9230 ft

	Elapsed	Thickness	Final Temp	Available
45.2 min Mash In <i>Liquor: 5.75 gal</i> <i>Strike: 78.19 °C</i> <i>Target: 67.0 °C</i>	00:45:10	2.4 L/kg	67.0 °C	3.37 gal
60 min Saccharification Rest <i>Rest: 60 min</i> <i>Final: 66.4 °C</i>	01:45:10	2.4 L/kg	66.4 °C	3.37 gal
10.0 min Batch Sparge <i>Sparge #1</i> <i>Volume: 3.41 gal</i> <i>Temperature: 85 °C</i> <i>Duration: 10 min</i> <i>Total Runoff: 6.87 gal</i>	01:55:10	0.0 L/kg	70.9 °C	0.0 gal



Carbonation:

Natural Conditioning	Forced Carbonation
Beer Temp: 68.0 °F	Beer Temp: 44.0 °F
Priming Agent Rate: 4.02 g/L	Pressure: 13.2 PSI
Priming Agent Mass: 134.0 g	Volumes CO2: 2.4
Volumes CO2: 2.4	

Volume Adjustments:

- 100 mL Kettle
- .25 gal Fermenter

Notes:

Mash pH 5.6; salts added to kettle.
 Very windy and difficult to maintain boil.
 10 min hot whirlpool, 20 minute whirlpool/chill. 0.9 gal split into three growlers for US-05 rehydration experiment.
 Aerated 15 min, pitched at 66°F. Fermented at 62-68°F for days; crashed at ~48°F for 3 days.