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Mean Brews - Dark Weizenbock - 7.6%

Weizenbock
Author: Mean Brews

Type: All Grain

IBU	: 23 (Tinseth)
BU/GU	: 0.3
Colour	: 41 EBC
Carbonation	: 3.1 CO2-vol
Pre-Boil Gravity	: 1.054
Original Gravity	: 1.076
Final Gravity	: 1.018

Fermentables (1.89 kg)
473 g - Wheat Malt 3.9 EBC (25%)
473 g - Wheat Malt Dark 13.8 EBC (25%)
407 g - Pilsner 3.3 EBC (21.5%)
394 g - Munich Malt 17.7 EBC (20.8%)
48 g - Caramel Malt 20L 52 EBC (2.5%)
34 g - Caramunich III 140 EBC (1.8%)
32 g - Carafa Special I 900 EBC (1.7%)
31 g - Special B 290 EBC (1.6%)

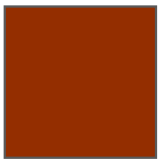
Hops (16.7 g)
60 min - 10.3 g - Hallertauer Mittelfrueh - 4...
15 min - 6.4 g - Hallertauer Mittelfrueh - 4%...

Miscellaneous
Mash - 0.27 g - Baking Soda (NaHCO3)
^ Lot # 41190621/3
^ Brouwstore (NL) 003.106.2
Mash - 1.89 g - Calcium Chloride (CaCl2) 33 %...
^ Lot # 115038
^ Brouwstore (NL) 055.035.0
Mash - 0.26 g - Canning Salt (NaCl)
^ Albert Heijn (NL)
Mash - 0.93 g - Epsom Salt (MgSO4)
^ Lot # /2119000091
^ Brouwstore (NL) 055.027.7
Mash - 0.94 g - Gypsum (CaSO4)
^ The Malt Miller (UK) CHE-03-004
Mash - 0.9 ml - Phosphoric Acid 75 % 85%
^ Lot # /L20003612
^ Brouwstore (NL) 055.054.1
Sparge - 0.06 ml - Phosphoric Acid 75 % 85%
^ Lot # /L20003612
^ Brouwstore (NL) 055.054.1

Yeast
0.3 pkg - White Labs Hefeweizen Ale WLP300
^ 3 Liter Starter

01 Brouwpunt 5L (80min) (rev 4)

Batch Size	: 5.6 L
Boil Size	: 8.36 L
Post-Boil Vol	: 5.96 L
Mash Water	: 5.68 L
Sparge Water	: 4.62 L
Boil Time	: 80 min
Total Water	: 10.3 L


41 EBC

Brewhouse Efficiency: 71.8%
Mash Efficiency: 73.3%

Mash Profile
High fermentability
45.2 °C - Strike Temp
42.2 °C - 10 min - Ferulic Acid Rest
52.8 °C - 15 min - Protein Rest
63.3 °C - 30 min - Beta Rest
67.8 °C - 45 min - Alpha Rest
76.7 °C - 15 min - Mashout

Fermentation Profile
Ale
17.2 °C - 7 days - Primary
21.1 °C - 7 days - Primary
1.1 °C - 1 days - Cold Crash

Water Profile
02 NL Spa Reine Flat Mineral Water (www.ah.nl...
Ca 48 Mg 11 Na 20 Cl 59 SO 90

SO/Cl ratio: 1.5
Mash pH: 5.37
Sparge pH: 5.4

Measurements
Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume:

Recipe Notes
General notes

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Recipe Notes

1) Adjust recipe to your specific equipment, efficiencies, and sparging processes
2) the yeast starter of at least 3 Liters/5 gallon batch should be made at least 5 days prior. Crash the starter in the fridge and decant prior to pitching into the wort.
3) Wheat can be problematic in conversion. Monitor conversion during saccrification mash steps to determine when you should stop mashing and proceed to mashout steps.

Mash Directions

1) Mash in for the ferulic acid mash and withold all roasted malts, special B, and Acid adjustments. This is to allow for a higher mash pH which will extract the maximum amount of Ferulic acids.
2) Ramp to protein temperature, and once achieved add roasted malts, special B and mash acids.
3) follow mash steps and sequences specified and sparge as your normal process
4) have some pilsner DME on hand to add to the kettle if you do not hit your pre-boil OG as wheat based malts can be problematic with efficiency. Add DME slowly as to not scorch on the element nor on the bottom of the kettle if using direct fired kettle heating.

Boil Directions
1) Boil 80 minutes adding hops as required. Be sure to adjust hop rate for 60 minute addition to account for your alpha acids of the hops you have so that you achieve the 23 IBUs specified. maintain the hop rate of 0.14 oz/gallon for flavor hops and do not adjust those for AA%.
2) add yeast nutrient and kettle finings at 10 minutes to end of boil
3) Chill quickly and transfer to fermenter.

Fermentation Directions
1) Ensure wort is at 64 F
2) Once wort has achieved 64F, Oxygenate 2 minutes using a sintered stone and pure O2 at 1 LPM (adjust if using air for equivalent O2ppm) If using an O2 wand stir while oxygenating to ensure the O2 dissolves into the wort and doesn't just gas off as bubbles on the surface
3) pitch yeast starter and close up the fermenter
4) ferment per the specified scheulde. Ramp up to 70F should be when attenuation ceases to become linear and begins to approach the terminal gravity asymptote. At this point you may also spund if desired.
5) sit on the full bed of yeast at 70F after terminal gravity is reached to allow the yeast to clean up
6) Cold crash prior to transfer.

Packaging Directions
1) Transfer to a keg and serve at 3 volumes if possible. if your system foams at these higher serving pressures, scale back the CO2. If you bottle condition, beware that yeast addition (CBC-1) may be required and can kick off additional fermentation resulting in bottle bombs (I've learned this from experience from making this recipe!) Its best to bottle from the keg using Counter pressure filler or Beergun. Use high pressure belgian bottles if bottling above 3 volumes of CO2.