

Dad's Brown Ale - #149

Description [See Brew.XLS](#) [See #107 Dad's Brown Ale](#) [See #129 Dad's Brown Ale](#)

Hoppy West Coast American Brown Ale. Based on [#137](#), #128 Judy's Brown Ale, & Tasty's Janet's Brown Ale (AHA, & pg. 143 of Brewing Classic Styles). Makes ~5 gal, 7.2% (v/v) alcohol, 81 IBU, and 235 calories in 12 oz.

Brew (Brew day takes ~8hr, see page 1 for mashing details)

- 1) **Yeast**, use Chico yeast, this one was 2 packs Safale US-05, rehydrate*
- 2) **C filtered** 20 gal. H₂O day before. Also, add 1 Campden tablet per 20 gal. the night before.
- 3) **Grain Bill** (17.25lb. total grain) based on 72% extraction efficiency.
 - 13 lb. Marty's 2 Row 3.5 lb. Rye (19%) ½ lb. Acidulated (3%)
 - ¼ lb. Melanoidin (25L) ¼ lb. 56L Crystal ½ lb. Pale Choc. (217L) ¼ lb. Chocolate (350L)
 - 1 lb. Cane Sugar ~\$24.00
- 4) **Mash-In** – 1x infusion, 147-150°F, use 1.25 qt./lb., 5.75 gal of 161°F strike H₂O, heat to 174°F, for 18.25 lb. base malt, hold 40 min. (this one was 176°F in the kettle, and 165°F strike, needed 1 pt. RT &, lowered to 160), got 146°F mash 15 min., then RIMS to 151°F for 27 min. Mash-Out w/2.25 gal. to 154°F.
- 5) **Water Adjustment** – - 0 min. into Mash, add 3.5 gm. Gypsum, CaSO₄, & 3.5 gm. Epsom Salts, MgSO₄, 1.8 gm. each added to mash before start of sparge, for remaining 3 gal. of 8.7 gal. mash water (7.5 gal. in brew pot), Oops, forgot sparge salts, added to kettle later, so;
89 ppm Ca, 25 ppm Mg, 154 ppm SO₄, 60 ppm Cl, 35 ppm Na. SO₄/Cl=2.6 See [Palmer's-Water-Calc-JBA146.xlsx](#). Mash salts added 7 min. in. Took pH sample (oops) min. in, got pH = ??, after lautering, pH = 5.3, also pH = 5.4 after boil. OK., [EZ water Calculator 3.0.2-DBA148.xls](#) says 5.42, got 5.4 on #140, with none, 5.4 on #142 with 1.5%, 5.4 on #146 with 2%.
- 5) **Mash-Out** Add 2.25 gal. near boiling H₂O, for 165-170°F. I got 154°F. (should be 3 gal.) Recirc. to clarify, ~5 min.
- 6) **Sparge** – At 165-170°F, collect **7.5 gal.**, got 6.75 gal. Should take ~1 hr. Expect 72% extraction, got 70%.
I.G. target = 1.068. Adjust for S.G = 1.061, so get S.G. = 1.051 avg. runnings, plus table sugar (+7 pts) & yeast (-1pts), got 1.048 avg. so added 0 qt. H₂O. Post boil 1.065, without cane sugar, so I added 1.4 qt. H₂O, to get 1.061. got 4 pts. high, due to big evap., cool, dry day.
- 7) **Boil Adds** (70 min. total boil of full volume)
 - 2 oz **Magnum (9.1%)** pellets, no bag **60 min.** boil left
 - Put **wort cooler** in **14 min.** boil left
 - 1 tsp **Irish Moss**, 4 tsp **Yeast Nutrient & ½ Zn tablet** **12 min.** boil left
 - 2 oz **CZT (10.4%)**, pellets, no bag **10 min.** boil left
 - 2 oz **CZT (10%)**, whole hops, no bag **2 min.** boil left
- 8) **Rehydrate the Yeast** – (not foamy, 8"x8" Pyrex pan to rehydrate 2 packs US-05).
- 9) **Rapidly cool** wort (wort cooler in brew pot) to 66°F at completion of boil.
- 10) **Transfer** to 6.5 gal. carboy, 2 min. pure O₂, add blow-off. low filled carboy, 5.75 gal.
- 11) Put carboy in Brewery with blow-off, RT = ~58°F.

Fermentation

- 1) 13 days in **primary**, 6 days@ 66 to 68°F, with heater, then ramp 1°F/day to 71°F, held 2 days. Started with blow-off tube in Star San in a small bucket in Brewery, then bubbler.
- 2) 5 days in, added 1lb. cane sugar, plus ___ pts, so took O.G. = 1.0___ to 1.0___.
- 3) **Kegged** 12/21/2015, dry hopped with 2 oz. Ted's Citra & 1.9 oz. Ted's Lemon Drop hops, left 6 days.
- 4) 1.068 to 1.016 is 76% apparent attenuation, OK for this crystal malt heavy grain bill, with sugar.
- 5) Dry hopped with ___ oz.
- 6) [#137](#) was served at 6/13 Grand Rapids Club Night, 4 days after dry hopped. Tasty said, "One of the best Brown Ale's he'd had." Martin Brungard (Bru'n Water) liked it, thought the water was right.

Results

Brewed, 12/8/15, 70% extract efficiency. good hop bitterness & light "brown" flavor, needs malt bill closer to [#137](#), also hopped with Centennial & Citra including dry hops.

*Rehydrate Dry Yeast

Per John Palmer pg 72. Warm **11.5 gm.** yeast pack to RT. Prepare **115 ml** of sterile H₂O at **105°F**. Sprinkle yeast onto H₂O surface, wait **15 min.** Stir into a cream, wait **15 min., should foam up.** Adjust temperature to within **15°F** of wort, pitch.