

Judy's Brown Ale - #140

Description [See Brew.XLS](#)

American Brown Ale. Based on #136 Judy's Brown Ale, & Tasty's Janet's Brown Ale (pg. 143 of BCS). Makes 12 gal. in fermenters (3rd big batch), 8.1% (v/v) alcohol, Rager 46 IBU (32 per Brew 365), and 225 calories in 12 oz.

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

- 1) **Yeast**, use Chico yeast, this one John's WLP007, Dry English, then 3 pkg of Safale US-05 rehydrated & pitched +20 hr.
- 2) **C Filter** 23 gal H₂O day before. 20 gal. was too little this time.
- 3) **Grain Bill** (27.75 lb. total grain) based on 76% extract efficiency 27 oz. Rolled Oats toasted on tray in oven 350°F for 35 - 45 min, until smelled good + some, like baking cookies (per Randy Mosher, Zymurgy), 40 min. this time, plenty dark.

20.5 lb. Marty's 2 Row	1.75 lb. Rye	27 oz. toasted rolled oats	0 lb. Acidulated Malt
½ lb. 25L Melanoidin	¼ lb. 56L Crystal	1 lb. Special B (~150L)	1 lb. Pale Choc. 217L
1 lb. Cane Sugar	1 lb. Brown Sugar	½ lb. Molasses	~\$40.00

- 4) **Mash-In** – 1x infusion, heat 11.5 gal. H₂O to 167°F, for 146-150°F, use 1.25 qt./lb., 8.75 gal of 159°F strike H₂O, for 27.75 lb. malt, hold 45 min. (this one was 159°F strike, needed 0 qt. more near boiling, 149 to 147°F for 73 min.).
- 5) **Water Adjustment** - 10 min. into Mash, add 12 gm. (3 tsp.) Gypsum, CaSO₄ to mash, for 14.3 gal. mash water, so; 104 ppm Ca, 10 ppm Mg, 124 ppm SO₄, 60 ppm Cl, 35 ppm Na.
Oops, added salts 33 min. in, took pH sample after mash, pH = 5.4
- 6) **Mash-Out** Add 4 gal. near boiling H₂O quick, for 165-170°F, 162°F actual. Recirculate to clarify, ~5 min.
- 7) **Sparge** – At 165-170°F, collect 14.3 gal. (oops, 14.7 this time.) Should take ~1 hr., this one longer, needed more water.
I.G. target = 1.068. Adjust for S.G = 1.064 without cane sugar (+4 pt.), so get S.G. = 1.048 avg. runnings, plus adjuncts (+5 pts) & no starter, got 1.047 avg. so add 0 lb. sugar (1 to 2 lb. based on actual). Actual post boil = 1.056, pH = 5.4, so 2 lb. sugar to add 9 points to O.G. = 1.065
- 8) **Boil Adds** (75 min. total boil of full volume)

2 oz. Magnum (12.6%) pellets, no bag	48 min boil left
Put wort cooler in	16 min boil left
2 tsp. Irish Moss, 4 tsp Yeast Nutrient & 1 Zn tablet, Brn S & M	12 min boil left
3.4 oz HG F&C (2.7%) , whole, no bag	2 min boil left
- 9) **Rapidly cool** wort (wort cooler w/whirlpool) to 71°F at end of boil. This one real slow, warm ground water. 1.5 hr.
- 10) **Transfer** to 2 ea. 6.5 gal. carboys
- 11) **Pitch yeast**. 71 °F, 3 min. pure O₂, each, add blow-offs. 125 ml John's WLP007, Dry English slurry, should be 300 ml.
- 12) 2 carboys in Brewery with blow-off, RT = ~71°F. 20 hrs no action, so rehydrated & pitched 3 packs US-05.

Fermentation

- 1) 29 days in **primary** @ 68°F with wet towels, no heater 2 days, then added ice. Added 2 lb. sugar on day 4 @66°F, 2 days later heater on, ramped 1°F/day to 70°F, held 70°F for 16 days. No heat for 2 days, ~64°F.
- 2) **Bottled**, 10/28/2014. Got 4 cases plus 10 = 106 bottles. Used 330 gm corn sugar for 11 gal. est., 70°F, 2.8 vol.
- 3) 1.065 to 1.005 is 92% apparent attenuation, crazy high, especially for this crystal malt heavy grain bill.

Results

Brewed, 9/29/14, 72% extract efficiency, partly due to 1 gal. extra in fermenters. Hop bitterness & flavor very low, hop aroma zero, good dark color, heavy "brown" flavor, sweet. About what Judy likes, maybe a little sweet, need to finish lower, like 1.014-16. Need to add 1.5% Acidulated malt next time to get mash pH down.

* [Fermentis Safale US-05 American Ale Yeast](#).

Rehydrate Dry Yeast

Warm 11.5 gm. yeast pack to RT. Prepare 115 ml of sterile H₂O at 105°F. 2 packs per measuring cup.

Sprinkle yeast onto H₂O surface, wait 15 min. Stir into a cream, wait 5 min. Adjust temp. to within 15°F of wort, pitch