

King's Red Rye Ale - #139

Description [See Brew.XLS](#)

Based on #135, #127, similar to [Denny Conn's Rye IPA](#), with dry Safale US-05 yeast. Makes ~5.7 gal, 87 IBU (calculated), 6.7% (v/v) alcohol, and 249 calories in 12 oz. Influenced by 2014 NHC Oak Aged Rye IPA by Founders. See next try, #xxx

Brew (Brew day takes ~8hr, see page 2 for mashing details)

- 1) Yeast, 2 packs Safale US-05, rehydrate*
- 2) **Treat Mash Water**, 2.1 tsp. Gypsum into mash at dough in, based on 7.5 gal. Drew 14 gal. C filtered H₂O, need 16 gal. See [Palmer XLS](#), but backed off due to darker malts than normal IPA, and 3% Acidulated malt per John Bl. (½ each).
- 3) **Grain Bill** (15.7 lb total grain, assumed 76% extraction efficiency for 1.068, after sugar added)
8.75 lb. Marty 2 RE ½ lb. Acidulated (3%) 2 lb. Munich (10L) ½ lb. Cara Red (20L)
3.5 lb. Rye Malt 3 oz. Roasted Barley ¼ lb. Melanoidin (25L) 1 lb. Cane Sugar
\$20 grain
- 4) **Mash-In** – 1x infusion, 146-151°F, use 1.25 qt./lb., heat to 172°F for 4.9 gal of 161°F strike, hold 50 min. (this one was 159°F strike, got 149 to 146°F, then 150°F w/added hot H₂O, for 52 min.). pH = 5.1, 18 min. into mash.
- 5) **Mash-Out** - Add 2 gal. of near boiling, got 155°F, need 3 gal., recirculate 5 to 10 min. Collect 7 ½ gal. **Target = 1.068**, should get S.G = **1.048 before boil** (-1 pt for yeast). I got 11Brix = 1.044 which should boil to 1.054, ended up O.G. = 1.062, 8 pt high, so added 1 lb. cane sugar (+ 7.4 pt., had planned 1.5 lb. = +11pt.), to get 1.069. pH = 5.25 into brew pot.
- 6) **Boil Adds** (79 min. total boil of full volume, should end up at 6 gal.). Hops not in bags.
2 oz. **Magnum pellets (12.1%)** **69 min. boil left**
1 teaspoon **Irish Moss** & ½ **Zn** tablet & 3 tsp **YN** **16 min. boil left**
Put **wort cooler** in **15 min. boil left**
2 oz. **Centennial, whole (9.3%)** **3 min. boil left**
- 7) **Whirlpool 34 min. & cool** wort (immersion cooler w/ice) to 73°F at completion of boil, tap water not cold.
- 8) **Transfer** to 6.5 gal. carboy, 2 min. pure O₂, add blow-off. pH = 5.4 (raised?)
- 9) **Pitch yeast** (really foamy, good).

Fermentation

- 1) 15 days in **primary** @75°F, cold towels and ice, so 71°F in 1 hr, then 65°F within 2 days, held 2 days, with blow-off tube in brewery, then 67°F naturally, 4 days in added 1 lb. sugar, after 7 days added thermostat and heater, then +1°F/day to 70°F, held for 3 days, then heat off, 3 days at 68°F.
- 2) **Kegged** 9/26/14 (2.0 hr), dry hop with 2 oz whole Citra in 4.5 gal keg, 2 oz. old CTZ in 1 gal. keg, blah. Set for 5 days in Brewery, then to fridge for 5 more days, & hops out, no oak. Denny used 1 oz. Columbus for dry hopping. Got 5 ¾ gal.
- 3) **2nd Dry Hop**, _____.
- 4) 1.065 to 1.016 is 75% apparent attenuation, not good.

Results



Brewed 9/11/14, got 74% grain extraction, Citra dry hopped, good aroma, but low bitterness, good red rye flavor & body, low sweetness. Nice color and clarity after ~2 weeks. Need about 15 IBU more bitterness to make it a Red Rye IPA.

Pete Kirkgasser says for an IPA, to use 2 lb. Munich, 1lb. Victory and 1 lb. 45L, nothing higher. Columbus for bitterness, and Centennial for 30 min. 3 oz., 1 each of those and 1 of Cascades for dry hop.

*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.** Adjust temperature to within **15°F** of wort, pitch.