

King's Red Rye IPA - #148

Description

Based on [#143](#), [#139](#), [#135](#), [#127](#), [#143](#), similar to [Denny Conn's Rye IPA](#), with dry Safale US-05 yeast. Makes ~5.7 gal, 101 IBU (calculated), 7.5% (v/v) alcohol, and 249 calories in 12 oz. Influenced by 2014 NHC Oak Aged Rye IPA by Founders. See last try, [#144](#) with Jay. Pete Kirkgasser makes a great hoppy Red Ale.

Brew

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

- 1) Yeast, 2 packs Safale US-05, rehydrate*
- 2) **Treat Mash Water**, add 1 Campden tablet per 20 gal. the night before. 8.4 gm. (2.1 tsp.) Gypsum into mash at dough in, based on 9 gal. total. Drew 17 gal. C filtered H₂O. 0 gm. added to mash before Mash-Out, for remaining 4 gal. of 9 gal. mash water (7.5 gal. in brew pot), See [Palmer's-Water-Calc-IPA.xlsx](#), & [EZ water calculator-3.0.2-RRIPA.xls](#) with 3% Acidulated malt per John Bl. (½ each). 109 ppm Ca, 10 ppm Mg, 138 ppm SO₄, 60 ppm Cl, 35 ppm Na, SO₄/Cl = 2.3. 9 gal. in brew pot night before.
- 3) **Grain Bill** (15.9 lb total grain, assumed 85% extraction efficiency for 1.070, after sugar added)

4 lb. Simpson Golden Promise PA	5.5 lb. Marty 2 Row	½ lb. Acidulated (3%)
3.5 lb. Rye Malt	½ lb. Munich I (6L)	½ lb. Munich II (9L)
½ lb. Cara Red (20L)	¼ lb. Melanoidin (25L)	3 oz. Roasted Barley
0.5 lb. Cane Sugar		\$21 grain
- 4) **Mash-In** – 1x infusion, 146-151°F, use 1.25 qt./lb., heat to 173°F for 5.0 gal of 161°F strike, hold 50 min. (this one was 173°F made a 158°F strike, so added a big pan of near boiling, got 149 to 144°F, then 151°F w/added 1 gal., w/o RIMS working, plus 1 pan hot H₂O, for total of 62 min. mash). pH = 5.2, 18 min. into mash.
- 5) **Mash-Out** - Add 3 gal. of near boiling, actual 1.5 gal., got 160°F, re-circulate 7 min. Collect 7¾ gal. **Target = 1.068**, should get S.G = **1.049 before boil** (+10 pt. for 1.25 lb. sugar, -1 pt for yeast). I got 11.2 Brix = 1.045 which should boil to 1.055, ended up O.G. = 1.058, 3 pt high, so added 1.25 lb. cane sugar (+ 10 pt., had planned 1.25 lb.= +10 pt.), to get 1.068. pH = 5.3 into brew pot.
- 6) **Boil Adds** (75 min. total boil of full volume, should end up at 6 gal.). Hops not in bags.

1 oz. Azacca pellets (9.8%)	65 min. boil left
2 oz. CTZ, whole (10.4%)	65 min. boil left
1 teaspoon Irish Moss & ½ Zn tablet & 3 tsp YN	17 min. boil left
Put wort cooler in *** Get whirlpool set up ***	13 min. boil left
3oz. HG Cascade , whole (~2.5% , 2010)	2.5 min. boil left
- 7) **Whirlpool for** 30 min., after 2 min. delay, total of 63 min. to cool wort (immersion chiller w/ice) to 71°F
- 8) **Transfer** to 6.5 gal. carboy, 1.75 min. vigorous pure O₂, add blow-off. pH = 5.5 (same as [#143](#).)
- 9) **Pitch yeast** (not foamy, 1st use of 8"x8" Pyrex pan to rehydrate 2 packs US-05).

Fermentation

- 1) ___ days in **primary** @64°F 1 day with thermostat and heater, then ___°F for ___ days. ___ days in added ___ lb. sugar, after ___ days, +1°F/day to 70°F, held for ___ days, then heat off, ___ days at ___°F.
- 2) **Kegged** 10/___/15 (2.0 hr), dry hop with 2 oz whole Citra & 2 oz. Centennial in 4.5 gal keg, Set for 5 days in Brewery, then hops out, no oak, added 2 oz. Citra for 2 days, then rack to clean keg (6 bottles by CPBF for Florida). Denny used 1 oz. Columbus for dry hopping. Got 5.7 gal. pH = 4.6
- 3) 1.068 to 1.0___ is ___% apparent attenuation, good.

Results



Brewed 10/15/15, got 74% grain extraction, low due to Marty's 2 row. Citra dry hopped, ___ aroma, ___ bitterness, ___ red rye flavor & body, ___ sweetness. ___ color and clarity after ___ weeks. John Bleichert liked #143, won [Gold](#) in March 2015 Coconut Cup, [37.5 in Specialty class, 23](#).

*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.