

King's Summer IPA - #147

Description [See Brew.XLS](#)

Based on #109, #123, #131, #138, 3rd cut at extract, for summer brewing, with dry Safale US-05 yeast. Makes ~5.7 gal, 84 IBU, 77% (v/v) alcohol, and 242 calories in 12 oz. 2015 NHC Gold

Brew (Brew day takes ~5.5hr.)

- 1) No salts in 7.5 gal. C filtered H₂O. Also, add 1 Campden tablet per 20 gal. the night before.
- 2) **Malt**
6.85 lb. Golden DME ½ lb. Dark Munich 9L ½ lb. Melanoidin 25L 1.5 lb. Cane Sugar
\$18 malt
- 2) **Steep Grain** – Heat 7.5 gal. H₂O, add grain in bag at 105°F, raise to 156°F, hold 30 min., raise to 165°F.
- 3) **Remove grain**, Check S.G. Expect 102% extraction, based on previous 102%. Got 97%. But used -4 pt. correction of hydrometer this time, didn't for #138, where it was 102%.
- 4) **Add DME**, preboil should be 11.4 Brix, 1.046, should boil to 1.056. Add Sugar (+12pt) after peak ferment, for effective O.G. = 1.068. Got 1.047, 1 pt. high, leave it. Boiled to 1.054, 2 pt low, so add 0 qt. H₂O with 1.5 lb. table sugar, after peak fermentation.
- 5) **Boil Adds** (66 min. total boil of full volume, should end up at 5½ - 6 gal.). Hops not in bags.

2 oz. Azacca Pellets (11%)	60 min boil left
Put wort cooler in	45 min boil left
1 teaspoon Irish Moss & ½ Zn tablet & 2 tsp YN	12 min boil left
2 oz. CZT Pellets (10.4%)	2 min boil left
- 6) **Whirlpool**, don't prime and run until after whole hops, for hot break & pellet filtering on false bottom.
- 7) **Rapidly cool** wort (immersion cooler w/ice) to 65°F at completion of boil. Hot, only got to 72°F.
- 8) **Re-Hydrate 1.5 packs of Yeast.**** Per Mr. Malty, but I used 2 packs US-05, Chico yeast.
- 9) **Transfer** to 6.5 gal. carboy, used 2 min. of pure O₂, add blow-off. Tons of break material, need whole hops.
- 10) **Pitch yeast.** Was cooled to 72°F, wet towel added, 69°F in 6 hrs, then 67°F next am.

Fermentation

- 1) 21 days in **primary** @ 67 – 65°F for 4 days, with blow-off tube in brewery with wet towels. Added 2.1 qt. H₂O with 1.5 lb. table sugar on day 4, rose to 68°F, day 6 added heater & blankets, stepped up to 70°F, 1 F° per day, held 5 days.
- 2) **Kegged** 8/17/15 (2.0 hr), Wet hop with 8.3 oz. fresh HG Cascade for 3 days, dry hop with 2oz. old Citra whole hops and for 5 days in Brewery, hops out, then to fridge. Got ~5.25 gal. total.
- 3) **3rd Dry Hop**, 2 oz. whole CTZ pellet hops from Ted, late 2014, out after 3 days.
- 4) 1.066 to 1.009 is 86% apparent attenuation. Safale US-05 should be low in flavor, good starting and attenuation. Good, due to low X-stal malt level & 1.5 lb. table sugar.

Results



Brewed 7/27/15, Good flavor, good bitterness when young, good body & head, low sweetness. Expensive, but works well for summer. Dry hop doesn't last long, just a few weeks. Keep it simple.

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.

* **Fermentis Safale US-05 American Ale Yeast.**

**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.