#57: Hop Bitters (India Pale Ale)
Chris Swingley (22-Apr-2006)

Hop Bitters was the name of the Rochester, NY American Association baseball team. They played a single season in 1890, finishing with a record of 63 and 63. The American Association was absorbed by the National League in 1890. Hop Bitters was a best selling snake-oil patent-medicine of the era. This recipe is based on late nineteenth century India Pale Ale recipes.

Recipe (for 5 gallons final volume)

13	pounds	(81%)	Crisp Maris Otter Pale Malt
3	pounds	(19%)	Briess 6-Row Malt
1	ounce		Northern Brewer whole hops, 7.0% AA (first wort hop)
1¼	ounces		Chinook whole hops, 12.1% AA (75 minutes)
1	ounce		U.S. Goldings whole hops, 5.0% AA (2 minutes)
¼	teaspoon		Irish Moss (15 minutes)

White Labs WLP022 Essex Ale Yeast, pitched at 66°F
Starter: Top crop from previous recipe stored under distilled water in fridge, pitched into 1 quart sterile wort a few days earl
Aeration: Drill aerator for three minutes after pitching

Water
- Fairbanks city water
- 40¼ quarts water treated with:
    - 4 ml Potassium Metabisulfide solution (50ppm). removes chlorine ion and chloramine, reduces oxidation
- 24 quarts mash water treated with:
    - 2 teaspoons Gypsum. adds 90 ppm Calcium ion, 216 ppm Sulfite
    - 1 ml 88% Lactic Acid

Mash
- 24 quarts water @ 159°F, grist ratio of 1½ quarts:pound @ 150°F (Held 100 minutes)

Sparge
- 11½ quarts water @ 210°F, drain
- 5 quarts water @ 168°F, drain

Boil
- Boiled 8.0 gallons for 90 minutes to yield 5½ gallons wort

Fermentation
- Primary: bucket, 7 days, 66°F. Temperature range 65–70°F
- Secondary: keg, 14 days, 65°F. Gravity 1.021 at transfer

Packaging
- Kegged at 8 psi, 50°F (1.8 volumes CO_2)
- Conditioned for 8 weeks
- Ready to drink on 8-July-2006

Properties

Starting Gravity:	1.078	Final Gravity:	1.018
Original Extract:	18.9°Plato	Apparent Extract:	4.6°Plato
		Real Extract:	7.4°Plato
Alcohol:	7.9% by volume	Alcohol:	6.2% by weight
Apparent Attenuation:	75.8%	Mash Efficiency:	74%
Bitterness:	55 IBU	Color:	7°SRM
BU:SG:	0.71	BV:	1.53

Tasting Notes