

# #99: Original Piper's (Irish-American Red Ale)

CHRIS SWINGLEY (20-MAR-2016)

Named after our red dog Piper, who died in 2012.

## RECIPE (for 5 gallons final volume)

7½ pounds	(71%)	6-Row Malt (gap 0.9 mm)
12 ounces	(7%)	Crystal 60L
2 ounces	(1%)	Chocolate Malt
2 pounds	(19%)	Flaked Maize
4 ounces	(2%)	Flaked Barley
8 ounces		Cane Sugar (see notes below)
½ ounce		Simcoe whole hops, 11.6% AA (first wort hop)
½ ounce		Simcoe whole hops, 11.6% AA (45 minutes)
10 drops		Five Star Defoamer 105 (60 minutes)

Safale US-05 dry yeast, pitched at 64°F

Starter: Started 30 minutes ahead in ¼ cup of 80°F water.

Aeration: Drill aerator for three minutes after pitching

## WATER

- Fairbanks city water
- 36½ quarts water treated with:
  - 1 Campden tablet. Removes chlorine ion and chloramine, reduces oxidation
- 16 quarts mash water treated with:
  - 1 ml 88% lactic acid

## MASH

- Cane Sugar: added to offset bad mash efficiency
- 16 quarts water @ 163°F, grist ratio of 1½ quarts:pound @ 153°F (Held 60 minutes). Temperature range: 153–150°F.

## SPARGE

- 21½ quarts water @ 180°F, drain

## BOIL

- Boiled 8¼ gallons for 60 minutes to yield 5½ gallons wort

## FERMENTATION

- Primary: bucket, 7 days, 64°F. Temperature range 64–68°F
- Secondary: keg, 7 days, 68°F. 1.012 at transfer.

## PACKAGING

- Kegged at 8 psi, 50°F (1.8 volumes CO<sub>2</sub>)
- Conditioned for 3 weeks
- ready to drink on 10-apr-2016

## PROPERTIES

Starting Gravity: 1.052	Final Gravity: 1.011
Original Extract: 12.9°Plato	Apparent Extract: 2.8°Plato
	Real Extract: 4.7°Plato
Alcohol: 5.5% by volume	Alcohol: 4.2% by weight
Apparent Attenuation: 78.1%	Mash Efficiency: 62%
Bitterness: 31 IBU	Color: 12°SRM
BU:SG: 0.60	BV: 1.35

## TASTING NOTES