



847-359-BREW

# Resilience IPA 5.5 Gallon All Grain Instructions

## \*Proceeds donated to Campfire Recovery\*

### Cleaning and Sanitizing

Both a cleaner and a sanitizer should be used. Each has their own function. Cleaners remove organics which are food for unwanted contaminants.

PBW is an example of a cleaner. Use 1 tablespoon in 2-3 gallon of warm to hot water. Let it soak. Scrub surface with brush and rinse 3 X using water.

Sanitizers remove the unwanted contaminants (bacteria and yeast). Star San is an example of a sanitizer. Dilute ½ oz in 2.5 gallons. Place in a spray bottle and or dip equipment just prior to use. It can be used wet. 30 seconds of contact will kill 98% of the bacteria. A good rule is to clean all your equipment after its use. Then it will be ready to sanitize just before use.

**Grains:** 11 lbs 2-row, 1.25 lbs Crisp 60L

**Total water:** 9.4 gallons based upon 1 gal/hr boiloff

**Target Mash Temp:** 152 deg F

#### **Hop schedule:**

1.0 oz. Centennial hops @ 80 min  
1.0 oz. Cascade hops @ 15 min  
1.0 oz. Centennial hops @ 15 min  
0.5 oz. Cascade hops @ Whirlpool  
0.5 oz. Centennial hops @ Whirlpool  
0.5 oz. Cascade hops @ dry hop  
0.5 oz. Centennial hops @ dry hop

**Liquid Yeast:** Omega Oly-004

**IBU=64 ABV=6.3% OG=1.064 FG=1.016**

1. Heat 5 gallons of water to 171 °F . Target temp is 152 °F. Your equipment temperares may vary.
2. Mash grains at 152 °F for 60 minutes.
3. Collect the wort by slowly draining the mash tun.
4. Add the remainder of total water to sparge the grains and slowly drain.
4. Boil wort for 80 minutes, adding hops at the times indicated in ingredients list.
5. Add Irish moss and yeast nutrients with 15 minutes left.
6. Ferment at 65-71 °F for 10- 14 days.
7. Rack to secondary and let condition in a cool place for 10- 14 more days.