

Grape and Granary 915 Home Ave Akron, OH 44310 330-633-7223

G & G Beer Brewing Kit MALT EXTRACT- WITH GRAIN STEEPING

GG18 INDIA PALE ALE- G & G

**Ingredients** 

Dry Malt Extract #1 Dry Malt Extract #2 Dry Malt Extract #3 Specialty Grains #4 Bittering Hops #5 Aroma Hops #6 Priming Sugar #7 Irish Moss Sock for Steeping Yeast

# **Recipe Specifics**

Batch size- 5 US gallons Total grain-1 lbs Anticipated SG 1.067 Anticipated color SRM- 10 Anticipated IBU- 51 Boil time- 45 minutes

### Equipment

S.Steel or enamel canning pot Primary fermenter w/ lid Airlock and stopper Siphon equipment Hydrometer/thermometer Sanitizer Caps and Capper

## **Process Specifics**

Grain steeping temperature- 150-160 deg f. Recommended Yeast strain- wyeast #1028 Fermentation temperature- 60-75 deg f. Primary fermentation time- 3-5 days Secondary fermentation time- 5-7 days Carbonation- 5 oz dextrose Ideal conditioning time- 4-6 weeks

For a list of instruction sheets for grape and granary kits, visit http://www.grapeandgranary.com/ggrec.htm

1) Sanitize primary fermenter, lid, airlock (preferably using one-step or iodine sanitizer)

2) Pour approximately 2 gallon dechlorinated water into your boiling kettle. Bring water to 150-160 degrees F. Place (specialty grains #4) in steeping sock and place sock in water. Allow grains to steep for 20 minutes at 150-160 deg. F. Stir well repeatedly throughout the 20 minutes to allow for maximum extraction of color, flavor and aroma. After 20 minutes remove the sock. Add an additional 1-2 gallons of brewing water to the kettle and bring to a boil.

3) Turn off heat. Add all dry malt extract (#1, #2, #3 and bittering hops (#5). Stir well so that ingredients do not stick to the bottom of kettle. Hops may be put directly into kettle, straining bag not required.

4) Bring this mixture called 'wort' back up to a boil (watch for possible boil over). Allow to boil at a good rolling boil for 45 minutes. Control heat during boil so boil-over does not occur.

At 15 minutes before the end of the boil, add Irish Moss into the boiling wort.

At 2 minutes before the end of the boil add aroma hops (#6) into the boiling wort.

5) After 45 minute boil, turn off heat. If possible, place boiling pot into a sink of cold water. Circulate cold water around the outside of the pot for 15-20 minutes. Cool the wort to 110-120 degrees Fahrenheit. Pour or siphon wort from boiling kettle to primary fermenter (attempt to leave most of the hop residue and any proteins behind). Add enough cold water (refrigerated with no chlorine) to the wort and bring the volume up to 5 gallons.

6) Check temperature of wort and obtain 60-75 deg F. If necessary, place primary fermenter into a sink of cold water to achieve this temperature range.

7) Add yeast- if using liquid yeast make sure it has previously been popped and incubated or have yeast starter ready. If dry yeast is being used, rehydrate according to manufacturers instructions or sprinkle on top of wort. Check starting specific gravity with hydrometer and record for future reference. Fill airlock half full with water and attach to primary fermenter lid. Fermentation will commence within 24 to 72 hours.

8) When airlock stops bubbling (only bubbles 1 time per minute) check specific gravity. If doing a one stage fermentation go to step 10.

#### 9) RECOMMENDED STEP-

Siphon beer off yeast sediment into a 5 gallon glass jug. Do not splash. Allow beer to sit in carboy until clear usually 5-7 days. Add a fining agent if needed ( not included in this kit ).

10) Sanitize recappable beer bottles. Siphon beer from primary or secondary fermenter into priming container. Dissolve priming sugar (#7) in 1 cup boiling water. Add this sugar mixture to the beer in the priming/bottling container. Stir well but do not splash.

11) Fill bottles to within one inch of the top. Cap bottles and allow to sit at 60-75 degrees F. for two weeks. The bottles may then be refrigerated. The beer may be consumed after two weeks but will continue to improve up to 2 months in the bottle. The beer will store well for a year or longer. Chill the beer to 45-55 deg. F. before drinking and decant into a clean beer glass that has the capacity to hold all of the beer in the bottle- Enjoy!

IF YOU HAVE PROBLEMS OR QUESTIONS, PLEASE CALL 330-633-7223

#### India Pale Ale

A hoppy, moderately strong pale ale that features characteristics consistent with the use of English malt, hops and yeast. Has less hop character and a more pronounced malt flavor than American versions.

**History:** Brewed to survive the voyage from England to India. The temperature extremes and rolling of the seas resulted in a highly attenuated beer upon arrival. English pale ales were derived from India Pale Ales.

**Comments:** A pale ale brewed to an increased gravity and hop rate. Modern versions of English IPAs generally pale in comparison (pun intended) to their ancestors. The term "IPA" is loosely applied in commercial English beers today, and has been (incorrectly) used in beers below 4% ABV. Generally will have more finish hops and less fruitiness and/or caramel than English pale ales and bitters. Fresher versions will obviously have a more significant finishing hop character.

**Ingredients:** Pale ale malt (well-modified and suitable for single-temperature infusion mashing); English hops; English yeast that can give a fruity or sulfury/minerally profile. Refined sugar may be used in some versions. High sulfate and low carbonate water is essential to achieving a pleasant hop bitterness in authentic Burton versions, although not all examples will exhibit the strong sulfate character.