



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

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

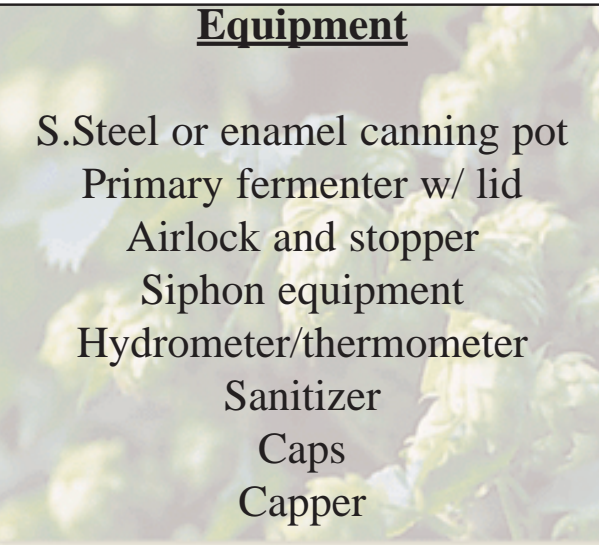
GG22
SCOTTISH ALE- EXPORT 80/-

Ingredients



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

Equipment



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

Recipe Specifics

batch size- 5 us gallons
total grain-1 lbs
anticipated SG 1.052
anticipated color SRM- 17
anticipated IBU- 35
boil time- 45 minutes

Process Specifics

grain steeping temperature- 150-160 deg f.
recommended Yeast strain- wyeast 1728
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 gallons (no more) of 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 for maximum color, flavor and aroma extraction. After 20 minutes remove the steeping. Add an additional 1-2 gallons of water to kettle and bring water to a boil.

3) Turn off heat. Add all malt (#1, #2 and #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.

15 minutes before the end of the 45 minute boil add Irish Moss (whirlfloc tablet) 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. 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 (#6) in 1 cup boiling water. Add this sugar mixture to the beer in the 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

Scottish Ale- Export

Cleanly malty with a drying finish, perhaps a few esters, and on occasion a faint bit of peaty earthiness (smoke). Most beers finish fairly dry considering their relatively sweet palate, and as such have a different balance than strong Scotch ales.

History: Traditional Scottish session beers reflecting the indigenous ingredients (water, malt), with less hops than their English counterparts (due to the need to import them). Long, cool fermentations are traditionally used in Scottish brewing.

Comments: The malt-hop balance is slightly to moderately tilted towards the malt side. Any caramelization comes from kettle caramelization and not caramel malt (and is sometimes confused with diacetyl). Although unusual, any smoked character is yeast- or water-derived and not from the use of peat-smoked malts. Use of peat-smoked malt to replicate the peaty character should be restrained.

Ingredients: Scottish or English pale base malt. Small amounts of roasted barley add color and flavor, and lend a dry, slightly roasty finish. English hops. Clean, relatively un-attenuative ale yeast. Some commercial brewers add small amounts of crystal, amber, or wheat malts, and adjuncts such as sugar.