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What's A Scottish Ale

5 Gallon Extract Instructions

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.

The Recipe

IBU=25 ABV=4.6% OG=1.049 EG=1.012

Extract:

3.3 lb Pilsen Light LME; 2 Lb Golden DME

Grains: (Place the grains in the muslin bag)

UK Dark Crystal 110 (12 oz); Caramunich 1 (8 oz); UK Dark

Crystal 155 (8 oz); UK Pale Chocolate (2 oz)

Hops:

N. Brewer 0.25 oz - 60 min; Fuggle 1 oz – 30 min; Fuggle 0.5 oz – 10 min

Priming sugar: 5 oz corn sugar

Yeast: Lallemant Windsor or OYL-015 Scottish Ale (break the smack pack just prior to starting "The Process")

The Process

If using Liquid Yeast, remove from refrigerator to bring to room temperature.

1. Heat the water to 160 degrees F and turn off the heat.
 - If the water is city water, the chlorine needs to be removed. Either carbon filter or let it sit out overnight. Don't use well or RO water. Buy spring water from the store.
 - Rule of thumb; boil as much water as your pot allows. (Up to 5 gallons) 0.5-1 gallon will be lost in boiling (60 minute boil).
2. Steep the **grains** for 30 minutes.
3. Remove grain bag and discard.
4. Heat the wort to just below a boil.
5. Turn off your heat source then add the **extract** using the whirlpool technique so the extract dissolves, and doesn't burn on the bottom of the kettle. After it is all dissolved, turn heat back on.

6. Bring to a boil. Add the **Hops** as specified in the recipe, Start the timer countdown (another 60 minutes).
7. Timer at **15 minutes** (Optional): add **Yeast Nutrient** and **Whirlfloc** or **Irish moss**.
8. Timer at 0: Stop heating. **Note: Everything that touches the beer from this point on should be sanitized.**
9. Remove from heat and **Chill** wort (**use an ICE BATH IF NO CHILLER**).
10. When **Temperature** of wort is less than 70 degrees F:
 - Transfer to fermenter splashing wort to oxygenate. Top off to 5.5 gallons with water if needed. **Oxygenation is needed to help the yeast get started. Pour the beer back and forth between 2 sanitized buckets or shake the carboy for 2 minutes.** Note: This will be the only time you want to oxygenate the wort. Avoid exposing the beer to air anytime after this point.
 - Pull a sample and Record starting **Specific Gravity** **OG= _____**
 - **Add Yeast and airlock.** Add the dry yeast to 1 cup of lukewarm water 10 min before pitching.
 - You will want to rig a blow-off tube.
11. Place the fermenter in dark cool spot (65-70 degrees F).
12. The next day check, for activity. It could take up to 48 hours for the airlock to start bubbling.
13. Ferment until the krausen that has formed on top has dissipated (usually 2 weeks).
14. Rack into a 5 gallon **Carboy**. By secondary fermenting, the beer will clarify and the flavors will mature.
15. Wait 2 weeks. Record Ending Gravity. **EG= _____**
16. **Bottle:** Dissolve priming **Sugar in 1/2 cup of preboiled hot water and place into sanitized bottling bucket. Rack the beer on top.** Sanitize the caps and bottles then bottle using the bottling bucket and bottle filler, fill each bottle 1 inch below the top and cap. Store them at room temperature while carbonating.
17. Wait 2 weeks.....Chill your first beer and test for carbonation... It could take up to 3 weeks to fully carbonate.

Cheers!!!!!!!!!!