Recipe for

GERMAN ALTBIER STYLE*

Yield: 5 gallons

Starting Gravity: 1.044 - 1.048
Final Gravity: 1.008 - 1.014
Alcohol by Volume: 4.0% - 5.0%
Hop IBUs: 25 - 35

INGREDIENTS (INCLUDED):

- 3.3 lbs. Plain Light Malt Extract
- 3.3 lbs. Plain Amber Malt Extract
- 12 oz. Crushed Crystal Malt 60L
- 1 oz. Crushed Black Patent
- 1 each Grain Steeping Bag
- 1 oz. Cluster Hops (Bittering)
- 1/2 oz. Hallertau Hops (Finishing)
- 5 oz. Priming Sugar
- 60 each Crown Caps
- 1 each Beer Yeast

EQUIPMENT NEEDED:

- Stainless Steel or Enamel Pot (at least 12 quart capacity)
- 6.5 Gallon Fermenter with grommeted lid
- Airlock
- Siphon Package (5 feet of siphon tube, bottle filler, racking tube with tip, and bucket clip)
- Hydrometer
- Bottle Brush
- No-Rinse Cleanser
- Liquid Crystal Strip Thermometer
- Beer Bottles (approximately 53 of 12 oz. capacity, returnable bottles only)
- Bottle Capper
- Bottling Bucket with Spigot
- Floating Thermometer

* All recipes conform to AHA guidelines

PROCEDURES

RECOMMENDATION: READ THESE INSTRUCTIONS FROM BEGINNING TO END BEFORE YOU BEGIN. ALL TEMPERATURES LISTED ARE FAHRENHEIT.

A. Following the cleanser package instructions, thoroughly clean and sanitize these items using No-Rinse cleanser:
   - Primary fermenter
   - Lid
   - Airlock
   - Hydrometer
   - Heat-tolerant spoon
   - Laboratory or floating thermometer

B. Pour two gallons of clean water into a 4 gallon or larger pot. If included in your recipe, pour crushed grains into the cloth bag and tie the end into a knot to close it. If crushed grains are not included, go to Step C. Place the grain-filled bag into the brewpot water and heat to approximately 160° - 170° and steep for 20 minutes. DO NOT BOIL THE GRAINS. Carefully remove the grain bag and allow it to drain into the brewpot without squeezing. Discard the grain-filled bag.

C. Heat the brewpot water to boiling. Add malt extract syrup and/or dry malt extract. Stir constantly until it returns to a boil. If your recipe includes Malto Dextrin or Rice Syrup Solids, add at this time. Add bittering hops. **Be careful not to let the pot boil over.** Boil for 55 minutes, stirring occasionally, then add finishing hops. Boil for an additional 5 minutes (total boiling time is 60 minutes).

*** Note - liquid malt extract will pour easier if you first place the tin in a pan of hot water for 10-15 minutes.***
D. Cool the wort rapidly to 70º. Temperature can be monitored by adhering the liquid crystal thermometer to the outside of the fermenter.

**NOTE** - cooling can be done quickly by immersing the fermenter into a tub of cold water. Other methods are available to the homebrewer. Ask your homebrew retailer for advice and instructions regarding wort cooling.

E. Pour or siphon brewpot contents into a sanitized 6.5 gallon food grade plastic fermenter, leaving sediment (trub) behind. Add 3 gallons 70º or lukewarm water until the level reaches the 5 gallon mark on the bucket.

F. Sanitize a hydrometer and take the Original Gravity (O.G.) reading. Write down this number for future reference. Sprinkle the contents of the yeast packet on top of the wort and stir well. Secure the lid on the fermenter with the airlock in place (approximately half filled with clean water).

G. Place the fermenter in a warm area to maintain a temperature of 68º - 72º. Keep the fermenter away from sunlight and fluorescent lights. You should notice bubbling in the airlock within 24 hours. Bubbling will slow down significantly and then stop completely after 3 to 7 days. When bubbling has stopped, remove the lid, sanitize a hydrometer and take the Final Gravity (F.G.) reading. Write down this number for future reference. If this reading matches the F.G. reading specified for your recipe, go to Step H. If the reading is higher than the reading specified in your recipe, place the lid back onto the fermenter and allow fermentation to continue for another few days.

**OPTIONAL** - a process called secondary (or two-stage) fermentation may be used at this point to improve beer clarity. Consult your homebrew retailer for advice regarding secondary fermentation.

**NOTE** - in preparation for bottling, we recommend against the use of twist-off bottles. Use standard crown top or returnable bottles only. Make sure bottles are clean, inside and out. Use a bottle brush to remove stubborn deposits. Following the cleanser package instructions, thoroughly sanitize the bottles using No-Rinse cleanser immediately before bottling.

H. Following the cleanser package instructions, thoroughly clean and sanitize these items using No-Rinse cleanser:

- 6.5 gallon bottling bucket and spigot
- Siphon tubing
- Racking cane
- Bottle filling wand
- (53) 12 ounce bottles
- (53) Brewer’s Best Crown caps

In a small saucepan, dissolve 5 oz. priming sugar into 2 cups of clean water and boil for 5 minutes. Pour this mixture into the bottling bucket. Siphon the beer from the primary fermenter into the bottling bucket. The siphoning action should thoroughly blend the beer and the sugar solution. Fill bottles using the siphon tubing connected to the spigot at one end and the bottling wand at the other. Bottles should be filled to approximately one inch from the top. Cap the bottles.

I. The sugar addition in Step H will produce natural carbonation in your beer. This process will take up to two weeks at room temperature. The beer should be stored in a dark place at 65º - 75º to ensure proper carbonation. For best flavor, age the beer an additional 21 days. Aging times will vary, depending on the type of beer brewed and your personal taste. Sit back and enjoy your just reward – QUALITY HAND-CRAFTED BEER!

***Always consult your local homebrew retailer if you have any questions regarding this product.***