Brewing Guide

Guide for beginners by Mark B. Alston

Methodology

These directions are designed to help the beginning brewer to not only brew excellent beer but to learn what each of the basic ingredients can add to the quality of her brew.

I suggest that you make your first batches in the following order. This will help to show you how easy it is to brew quite a variety of beers as well as help to define the difference in flavors attained from malts and grains, and the distinction between hop bitterness and the other benefits of the hop: flavor and aroma. ■

Batch # 1

For a 5-gallon batch.

- 1-Hopped Extract kit of your choice
- Dextrose (corn) sugar as required by kit instructions
- 1-2 pkg (14 gr.) Ale yeast
- 1/2 tsp. dextrose sugar per 12 oz. bottle to prime

Batch # 2

This batch should be exactly the same as the first batch with the exception of the substitution of malt extract for the dextrose in the boil.

- 1-Hopped extract kit of your choice
- 1-can unhopped malt

or for more bitterness

- 2-Hopped extract kits of your choice
- 1-tsp. Irish Moss last 15-20 min. of boil

Batch # 3

This batch is the same as # 2 with the addition of finish and dry hops.

- 1/2-1 oz. finish hops at end of boil
- 1/2-1 finish hops dry at 1st rack or after primary fermentation

Batch # 4

Same as # 3 except as follows:

- 1/2-3 lbs. flavoring grains of your choice

Steep grains in 160° F brewing water for 30 minutes to 1 hour. Strain liquid into wort prior to boil. Proceed as with other batches

Batch # 5

Now that you have learned what each ingredient can add to your beer you are ready to choose and bitter your own malt. Add your choice of flavor grains and the addition of finish and dry hops. Now we are really brewing.

- 5-10 lb unhopped malt extract
- 1/2-5 lb Specialty grains
- 1-2 oz Bittering hops
- 1/2-1 oz finish hops at end of boil (flavor)
- 1/2-1 oz aroma hops after primary fermentation
- 1-2 pkg (14 gr) Ale yeast
- 1/2 tsp dextrose sugar per 12 oz bottle to prime
- 1 tsp Irish Moss for clarity (optional)

Basic Instructions

Remove lid and label from can and heat can in pot of boiling tap water for 15 to 20 min. or until it will pour. In another pot bring 1 gal. of brewing water to a boil. Use as large a pot as you can.

Once extract can be poured, pour it into the boiling brewing water. Rinse out can with heated brewing water (heated in a separate saucepan) and pour into pot. Add the corn sugar, if required, and enough brewing water to bring level of wort (unfermented beer) to 2 inches below top of brewpot. Stir until mixed to prevent scorching and bring to a rolling boil. Add bittering hops if used. Boil for 60 minutes **watching very carefully for boil-overs**.

After 60 minutes, cool wort by placing brewpot into a cold water bath. Once wort has cooled to approx. 77° F add to primary fermenter and fill to pre-marked 5 gallon level with brewing water. Pitch (add) rehydrated yeast and oxygenate your wort. Affix airlock and ferment until all signs of activity have ceased. Prime, bottle, carbonate, age and DRINK!

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Sanitation

You must properly sanitize all equipment used in brewing. This will insure your beer is not contaminated with bacteria and wild yeast.

A 20 minute soak in B-brite or household bleach solution (2 tablespoons bleach per gallon water) works great. Rinse all items thoroughly with hot water. DO NOT leave stainless steel items soaking in bleach. Chlorine corrodes the steel. Use caution with glass carboys. They will break if the temperature change is too abrupt.

Anything touching the wort or it's ingredients prior or during the boil do not need to be sanitized. The boil will take care of that quite well.

Priming, Carbonating, and Aging

After all signs of fermentation activity have ceased you must add sugar to the finished beer to produce carbonation, this is called priming. First you must sanitize your bottles, a 5-10 gal. plastic bucket, your siphoning hose, and your bottle caps (boil these for 5 minutes). Boil 3/4 cup corn sugar in 16 oz. water for 5 minutes. Add this sugar solution to the sanitized pail. Siphon the beer from the fermenter into the plastic bucket. **Being very careful not to aerate the the beer.** Now siphon from this bucket into the bottles. Leave about 1 inch of air space in the bottle. After filling each bottle place a sanitized bottle cap atop it but do not cap. This allows residual oxygen to be forced out of the bottles by the carbon dioxide. Finally, after filling every bottle go back and cap each of them with your bottlecapper. Store away from light (inside the case works great) at room temp for 1 to 2 weeks. After this time the beer will be lightly carbonated. Move beer to a cool place for aging, or refrigerate for drinking if desired.

Flavoring Grains

Because we are brewing an extract brew you will not need to mash these grains. You must crush them however. You brewing supply store should have a mill for this purpose. Otherwise, you can crush them with a rolling pin using a small amount of pressure. You must steep them, after they have been crushed, to extract the flavor, body, and color that they will add to your beer. A 30-60 min. steep in 160° F brewing water will extract all the goodness and keep from extracting the harsh tannins from the husks. These tannins begin to come out of the husks at 170° so keep that temp down.

Oxygenate your Wort

To help your yeast get a good start and to prevent a stuck fermentation, your beer must be well aerated. After pitching the yeast shake the fermenter briskly for 2 or 3 minutes. This will make your yeast much happier micro-organisms.

Rehydrate your Yeast

To rehydrate dry brewing yeast boil 5-6 oz brewing water then cool to 100°F. Stir in yeast until mixed and cover loosely. Let it stand for 10-30 minutes.

Bittering Hops

In order to extract the hard resins which give hops their bittering qualities the hops must be boiled. A rolling boil of 60 to 90 minutes is best for efficient extraction.

Finish Hopping

Hop flavor; Add 1/2-1 oz of aromatic hops to the wort as you finish the boil. Allow the hops to steep in the wort as it is being chilled.

Hop aroma; Single stage brewers add 1/2-1 oz of aromatic hops to fermenter after primary fermentation activity subsides. (When you notice the foam on top of your brew start to fall the time is right) Reseal and allow hops to remain until bottled. Two stage brewers: add 1/2-1 oz of aromatic hops to the secondary fermenter before racking the beer from the first stage. Secondary fermentation should last around one week to allow sufficient extraction.

Keeping Notes

Keeping good notes on each brew is one of the best ways to learn and become a better brewer. It is hard to remember problems or experiences even 2 or 3 brews down the road.

Keep more records than you think that you need. After a few brews you will begin to see what is important and what simply stays the same from batch to batch.

Further Reading

The New Complete Joy of Home Brewing by Charlie Papazian is a great book to read. It should be the first homebrewing book any brewer buys.

The Complete Handbook Of Home Brewing by Dave Miller gets a little more technical and helps fill in a few gaps.

Equipment

The following equipment is available at your local homebrew supply. Look up "Beermaking Supplies" in your yellow pages. Bottles can be found at restaurants & bars.

- 2-Food grade buckets w/ gasketed lid (6 gal)
- 1-Air lock w/ rubber stopper
- 1-Thermometer
- 6-Feet of 3/8 inch i.d. tubing
- 1-Bottle filler and Racking Tube
- 1-Bottlecapper
- Lots of bottlecaps
- 60-Returnable 12-oz. bottles
- 1-Beer bottle brush
- Malt, hops, grains, and yeast as called for in recipes