

Home Brewing Guide

This guide is designed to help the beginning extract brewer brew excellent beer from the very start. We suggest that for at least your first four brews you use our Beer Nut Ingredient Kits. These kits are designed to help you learn the brewing process while making excellent quality beer. Please read these instructions completely and ensure that you are familiar with each piece of equipment and every step you will take; then, go through all the ingredients and look for any special instructions. If you still have questions please give us a call before you get stuck.

Before we get into the basic steps of brewing beer I feel that it is important to discuss the three most important parts of home-brewing. These are sanitation, sanitation, and sanitation. If you are very careful to sanitize all your equipment you can be assured that every batch of beer you make will be excellent. However, if you become lax about sanitation an infection will get you for certain. Sanitation is very simple but so important that you must make it a ritual before any brewing activity. In order to sanitize something it must first be thoroughly cleaned. Any deposits on the equipment will harbor bacteria which the sanitizing solution will not be able to reach. Do not clean with any abrasive cleaners or equipment which could scratch your equipment. Scratches in plastic are notorious for harboring beer spoiling bacteria. After all items are completely clean soak them in a sanitizing solution made from either one-step, iodophor, or Star San. With these sanitizers, no rinsing is either needed or recommended. Rinsing only increases the chance for contamination. Even more importantly, whenever you transfer the beer, never start the siphon with your mouth. There are always bacteria and wild yeast in your mouth just waiting to infect your beer. Either prime the siphon using sanitizing solution or, even better, use one of our siphon starters.

Basic Steps

Taking Notes

You should be taking complete notes about the entire process. Keep track of all steps taken, all ingredients used, how they are used, and anything else that might seem useful. This is essential in order to adjust the recipes and improve upon them. Take more notes than you feel are necessary and later you will learn exactly which are important.

Treating Brewing Water

All brewing water should be boiled before use to drive off the chlorine which could otherwise ruin a batch of beer. Boil the water for at least 15 minutes then let it cool in a suitable container until ready for use. This cooling allows for some of the excessive hardness to settle to the bottom. If you use bottled spring water you can skip this step; bottled water does not contain any chlorine.

Heating extract

Remove the lids and labels from all the cans or jars of malt extract you will be using. Then, place these containers in a pan of warm (not hot) water and let sit until contents are easy to pour. This step is not strictly necessary but makes pouring the extract much easier and quicker.

Steeping Specialty Grains

While the malt extract is loosening up add at least two gallons of water to your brewpot. If you have a larger brewpot use more water. In fact, the more water you can use the better. Just make sure that you leave enough space so that after adding the malt there will be at least a few inches of headspace to keep from boiling over.

If your kit includes specialty grains, take these grains and pour them into the steeping bag. Tie the bag and place it into the pot. Bring the water to 155 F and hold at that temp for 30-45 min. Remove grain bag and discard. If your kit doesn't use grains then continue as below.

Adding Malt Extract

Take the brewpot off the heat and add the malt extract while stirring constantly. By removing the pot from the heat you reduce the chances of scorching the extract on the bottom of the pot. Once the malt has been mixed into the water put the mixture (called the wort) back on the heat and bring to a boil. Place the bittering hops into a hop bag, tie the bag closed, and add to the boiling wort. Allow the wort to boil for 45 minutes at a slow rolling boil.

Adding Finishing Hops and cooling wort

If your kit comes with finishing hops place them into a hop bag and add them to the boiling wort 2 minutes before the end of the 45-minute boil. At the end of the 2 minutes remove the pot from the heat and place lid onto pot. Place the boiling pot into a sink or tub of cold water. Use ice if tap water is not very cold. Allow the wort to cool until the pot is slightly cool to the touch (60-70 F). During this time it is very important not

to open the lid or allow unsanitized items contact the wort in any way.

Rehydrating the Yeast

Rehydrate the brewing yeast by bringing 5-6 oz of brewing water to a boil and allowing this to cool to at least 100 F. As an alternative to boiling the water, you can use a small jar of spring water to rehydrate the yeast in. Stir in yeast until mixed and cover. Allow the yeast to rehydrate for approximately 10 minutes.

Aeration

When the wort has cooled sufficiently pour the wort into your plastic fermenter. Try to keep the bags of hops in the pot and out of the fermenter. Then top up the wort to the five gallon mark with cool water. Splash the cool water vigorously while adding it to the wort. Affix the lid and rock the bucket vigorously to both mix the wort and to further aerate it. Aerating the cooled wort allows oxygen to dissolve into the beer and gives the yeast the necessary nutrient for growth. NEVER SPLASH AROUND HOT WORT! Aeration while the wort is hot leads to oxidation and will give you stale beer. Moreover, never splash around already fermented beer; this oxidizes the alcohols and leads to cardboard flavors.

Starting Gravity Reading

With a sanitized glass or baster remove a small quantity of wort and fill your hydrometer jar (the tube your hydrometer came in) approximately 3/4 full. Pitch (add) the rehydrated yeast to the fermenter and affix the lid and airlock, filling airlock 1/2 full with water. Put fermenter away in a warm (65 F) area away from direct sunlight. Float your hydrometer in the jar and give it a quick spin to dislodge any trapped air bubbles. Sight across the liquid level at the lowest point and make note of where the hydrometer reads on the S.G. scale.

Fermentation

You should notice the beginning of fermentation in about 24-48 hours and this will continue for 3 to 7 days depending on the temperature. After all appar-

ent bubbling has stopped, wait another 3 days and take another specific gravity reading, using a sanitized baster or wine thief, and note the reading. It should be approximately 1/4 of the original gravity. I.e. if you read an original gravity of 1.040 you should be near a final gravity of 1.010. Then wait another two days and take a third reading. If the last two readings are the same then it is time to bottle. If you didn't take an initial gravity reading don't worry; take the second and third readings and just make certain that they are not changing.

Bottling

Sanitizing Bottles

Clean and sanitize bottles. If the bottles are anything besides brand-new, it is best to brush them out with the bottle cleaning brush. If they are new, you can simply soak them in a no-rinse sanitizer as discussed above. You can use a sink or bathtub but I like to use another 5 gallon plastic bucket. You must also sanitize the bottle caps by soaking them in the sanitizing solution.

Priming

Boil the priming sugar in one pint of water and add this mixture to bottling bucket. Transfer beer from fermenter to bottling bucket using the racking tube and siphon hose. Use either the siphon priming method described in your brewing handbook, or a siphon starter to get the siphon going. Be very careful not to aerate the beer at this point. Mix the priming sugar into the beer by gently stirring with the racking cane.

Bottling

Now, connect the tubing to the spigot on the bottling bucket and the bottle filler. Turn on spigot and allow beer to flow through spigot and hose into bottle filler. Use Filler to fill bottles to about 1" from top. Place a cap on top of each bottle as they are filled and continue until all bottles have been filled. Now, go back and cap each bottle in the order they were filled. This delayed capping

allows the dissolved CO2 to purge the headspace of any oxygen.

Aging

This priming sugar added at bottling time will result in a secondary fermentation in the bottles which produces the carbonation. The beer should be left in an area away from direct sunlight where the temperature is between 68-75 F to ensure complete carbonation. After seven days, give each bottle a twist to dislodge any yeast which may be clinging to the sides of the bottles. The beer will be best after allowing it to age for a month or so, but I can never wait. So at this point go ahead and enjoy. Just remember to save a few bottles (6 or so) for comparison against the later batches.

Adjustments

Now is the time to decide what changes to make to the recipe for your second batch. While tasting your beer take good notes about what you think of the bitterness level, hop flavor, color, maltiness, etc. After a while you will start to get a feel for what each ingredient adds to the beer. This is where the real fun comes from, adjusting the recipe to your tastes.

Standard Questions

My beer fermented for only 1 day. Is something wrong? No, everything is fine. Fermentation can take anywhere from 24 hours to 10 days depending on yeast strain and temperature.

I didn't see any bubbling in the airlock!?! Don't worry yet. Pop open the lid and look for signs of foam on top of the beer or a decent sized scum ring around the bucket above the level of the beer. If you see either of these the beer is fine: the lid simply wasn't seated down tight enough.

And the all popular: My beer did _____ should I dump it out? No, no, no. Always taste your beer before passing judgement. Also, give it at least several months before totally giving up on a problem beer. Many off characteristics age away into beautiful beers.