Intro to Homebrewing

Information and step-by-step help for your first brew day

Making Beer

- A 4 step process!
  - Brew (make the liquid)
  - Ferment (turn the liquid into beer)
  - Package (put the beer into bottles)
  - Enjoy

Ingredients

- Water
- Malt (extract for beginners)
- Hops (cone or pellets)
- Yeast (turn the malty liquid into beer)

Equipment

- Kettle (2+ gallon pot)
- Spoon (stirring!)
- Thermometer
- Fermenter (bucket)
- F-lock
- Siphon/tubing
- Bottling equipment
- Hydrometer (measure potential ABV)
- Cleaning and sanitizing supplies

Brew (make the liquid)

1. Gather Supplies

Ensure you have all the homebrewing equipment and beer ingredients necessary to brew.

2. Clean Equipment

Using unscented cleanser, thoroughly clean all brewing equipment. Debris on equipment can harbor microorganisms that can spoil a batch of beer, even with proper sanitation.

3. Heat Water

Put 1 gallon (3.79 L) of water in the boil pot and bring it to a boil.

4. Add Malt Extract

Once boiling, remove the pot from heat and stir in the malt extract, being careful that it does not collect on the bottom of the pot. Stir until completely dissolved.

Removing the pot from the heat source prevents the malt extract from scorching.

5. Return to boil

Once the malt extract has dissolved, return the liquid to a boil.

6. Add hops

After the liquid reaches a rolling boil, add the bittering hop addition.

7. Sanitize equipment

Everything that comes into contact with the wort after the boil must be sanitized to prevent risk of infection that could spoil a batch of beer.

8. Chill wort

After the 30 minute boil is complete, you have successfully created wort, the unfermented liquid that will turn into beer. Fill the clean and sanitized fermenter half way with cold water.

Add the hot wort.

Fill the fermenter with cool water to reach 5 gallons, and allow the wort to sit until it drops in temperature to 70-75°F (21-24°C).

Optional: take a hydrometer reading

Ferment (turn the liquid into beer)

1. Pitch yeast

When the wort temperature has dropped, sanitize your yeast package and add (pitch) the yeast.

2. Seal fermenter

Seal the fermenter with a clean and sanitized airlock and bung.

If using a bucket fermenter, a carboy bung is not typically needed.

The airlock can be filled with no-rinse sanitizer or a high proof alcohol.

3. Shake fermenter

After sealing, give the fermenter a vigorous shake for a minute or two to provide some oxygen to the yeast.

After shaking, prevent the liquid from splashing as much as possible until the beer is enjoyed.

4. Store fermenter

In the next 1-2 weeks, the yeast will be converting the fermentable sugars from the malt extract into CO2 and alcohol, a process known as fermentation. Pick a location that holds temperature within the range called for by the specific yeast, allows for minimal disturbance (splashing) and prevents any light from reaching the wort.

5. Monitor fermentation

Signs of fermentation should be visible via a bubbling airlock after 12-72 hours. The bubbling is caused by CO_2, a byproduct of fermentation. If the bubbling slows down or stops, it doesn't necessarily mean fermentation is complete.

Another visible sign of fermentation is the formation of frothy foam on top of the wort called kraeusen.

The sure-fire way to know if fermentation has ceased is to use a hydrometer.

Package (put the beer into bottles)

1. Boil water

After 3-4 weeks in the fermenter, your beer is ready to be packaged. Now that fermentation has stopped, the un-carbonated beer needs to be primed in order to carbonate. To do this, a small amount of sugar (dextrose) will be added to the beer. The yeast will ferment the sugar, creating CO_2, which cannot escape the capped bottle and subsequently carbonates the beer. Bring two cups (473 mL) of water to a boil.

2. Add priming sugar

Once boiling, add 5 ounces (141.7 g) of priming sugar (dextrose), and boil for 10 minutes.If you'll be bottling less than 5 gallons (18.9 L), a good rule of thumb is to use 1 ounce of priming sugar for every gallon being bottled.

3. Add to bucket

After the 10 minute boil, remove from heat and add the priming sugar solution to your already clean and sanitized bottling bucket.

4. Transfer beer

Using clean and sanitized equipment, such as an auto-siphon or racking cane, transfer (rack) the beer from the fermenter into the bottling bucket.

Avoid transferring the solid contents (trub) at the bottom of the fermenter into the bottling bucket.

5. Attach bottle filler

Attach the bottle filler to the spigot of your bottling bucket with a small piece of food-grade tubing.

Be sure to sanitize all these pieces of equipment thoroughly.

6. Fill bottles

Fill the clean and sanitized bottles up to the very rim of the bottle neck. When you remove the bottle filler, the volume should be perfect—about one inch from the top of the bottle—and consistent from bottle to bottle.

7. Cap bottles

Carefully cap the bottles with sanitized caps using a sanitized bottle capper.

8. Store bottles

Place bottles in a room-temperature area, around 70°F (21.1°C), and let them sit to allow carbonation to take place.

Enjoy!

After 2-3 weeks, open a bottle and enjoy the fruits of your labor!