



URBAN EST 1981 WINERY & CRAFT BREWING SUPPLIES

Brewing in a Bag (BIAB) Method

Making a beer with the brew in a bag method is an easy and cost effective way to get into all grain brewing. Brewers often start their all-grain brewing hobby with this method. Below are the instructions on how to make a beer with the BIAB method. This tutorial is based on making a 5-5.5 gallon (20L) batch of beer.

Required Materials

- Brewpot 7-10 gallons in size
- Heating source
- Nylon/polyester bag to hold grain in
- A second pot (2+ gallons) or a pail
- Stirring spoon/paddle of some kind (metal works best)

How Does It Work?

The BIAB method is essentially making a giant grain tea. Grains are immersed in a nylon/polyester bag inside of a brewpot and left to steep. After the steeping is done, simply remove the bag and what is left a sugary, grain tea which will then be boiled and fermented. Full details of how to do this follow.

Important Tips

- The temperature of your mash is ABSOLUTELY CRITICAL. Not being in the 150-155f range can drastically affect your beer. Make sure you correct the temperature ASAP once all of the grain has been added to the mash.
- Do not use water that has been water softened. Use only hard water, or naturally soft water. In the area around Guelph the water is all very hard, use standard tap water and it will work well.

Preparation

- 1) The size of brewpot you have will determine your starting water level. Ideally there should be 7 gallons of water to start, but if your brewpot's capacity is just 8 gallons then we recommend starting with 5 gallons of water.
 - a. Adding the grain will displace a lot of water, we want to leave 3 gallons of space for the grain
- 2) Fill your brewpot with the desired amount of water and bring to 160°F. This will be our strike temperature. (strike temp means the temperature at which the water will make contact with the grain. Room temperature grain will cool down the water to a desired mash level.)

The Mash

- 1) Once the mash water is at 160°F, it is time to add the grain.
- 2) Wrap the muslin/nylon bag around the brew pot and slowly pour all the milled grains into the bag. Stir them in while adding to prevent clumps. The addition of grain should drop the temperature down to 150-155°F.

- 3) Temperature is extremely important during the mashing process. The mash water has to be in the range of 150-155°F, and if it is not, it **needs to be remedied immediately**.
 - a. If it is too warm, add cold water until it is in range. If it is too cold, turn the heat up until it is in range. This needs to be done very quickly. If the beer is mashed too hot, then it will struggle to fully ferment. If it is mashed too cold, then it will result in a thin tasting beer.
- 4) Once the grains are fully mixed in, and the temperature is correct, then set a timer for 60 minutes and close the lid, make sure the heat is off.
- 5) Every 20 minutes do a temperature check. If it has dropped below 150°F, then turn the heat back on until it is back in range.
 - a. We recommend checking both the temperature probe on the brewpot (if yours has one) and opening the lid and using a thermometer to check the temp in the liquid itself. Sometimes the probe on the pots reads a bit too warm.

The Mash Out

- 1) The grains have been immersed in the mash water for 60 minutes. It is now time for the mash out.
- 2) Raise the temperature of the mash water to 170°F and hold it there for 10 minutes.
 - a. This added temperature will strip a lot of the fermentable sugar off of the grains.
- 3) After the 10 minutes are up, turn off the heat.
- 4) Now, it is time to remove the giant, water logged grain tea bag.
 - a. Lift up the grain bag and hold it over the pot for as long as possible. It is pretty heavy!
 - b. Let the liquid in the bag dribble back out into the pot.
 - c. When your arms have given out, move the grain bag into another vessel. We prefer a pot, but a pail works too. Let the liquid dribble out as it sits in the second container.
- 5) You might be tempted to squeeze the bag to remove all of the liquid. **DO NOT DO THIS**. Squeezing the bag will release lots of tannins that will strongly affect the taste of the final product.
- 6) We want to have 5.5-6 gallons of liquid in the brewpot before we begin to boil. If your pot has less than that, it will need to be topped up with more water. *This is where having a 10 gallon brewpot can be really handy. With 7 gallons of mash water, there should be no need to add any top-up water.*
 - a. If possible, in advance of mashing heat up another 1-2 gallons of water up to 170°F that can be used to run through the removed grain bag. Doing this will get a bit more of the sugar off of the grains.
 - b. If you did not heat up additional water, then simply add more (non softened) water to the brewpot until you get up to the 5.5-6 gallon mark.
- 7) Once you've got 6 gallons in the brewpot, crank up the heat and bring it to a boil. It is time for the boiling stage!
- 8) The grains in the bag can be thrown away, composted, or you can even make bread from them. Either way, they no longer have any use for this beer!

Summing Up

- 1) Grains are converted to a fermentable liquid by being immersed in warm water within a polyester/grain bag for a hour.
- 2) We want to keep a consistent temperature in the 150-155°F range for a hour, and then 10 minutes of 170°F to strip most of the sugar off the grains.
- 3) Make sure to end up with 6 gallons of liquid for the next stage.