

Dan's Homebrewing Supplies
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All-Grain / Partial Mash Method

Single Infusion Mashing

These instructions assume that you are using a mash tun made from a single plastic bucket. Mashing in your kettle will require rigorous temperature control not covered here.

1. Heat 1 litre of water for each pound of grain to 78 degrees Celsius. (don't you just love the Canadian metric system?)
2. Preheat mashtun with a good hot water rinse. As soon as the strike water is heated, transfer to mash tun, and then stir in malt, -- not malt extract. Check that the temperature is 66 to 68 degrees C. Temperature can be adjusted by adding cold or boiling water, but re-stir and check again before taking corrective measures, it does take a few minutes for the malt to absorb the water.
3. Put the lid on the mash tun and cover with towels, or anything insulating, as any heat loss likely to occur will be through the lid. My personal experience is that the temperature only drops a couple of degrees in the course of a one-hour mash, even without insulation. A plastic bucket is pretty good insulation itself compared to a stainless steel kettle.
4. Let rest for 1 hour. The starch will convert to sugar during this rest. A longer rest will result in a more fermentable wort -- ie. more alcohol, less body, A shorter, hotter (70 C) rest will result in a less fermentable wort -- ie. higher terminal gravity.
5. Fill your kettle with water and bring it to a boil. This is your sparge water and you will need it ready at the end of the starch rest. Transfer this water to a bucket (your primary will work nicely).
6. 20 minutes or so into the starch rest, take a sample of a half litre or so from the spigot. You will notice that it is cloudy and starchy, but already turning quite sweet. Return sample to mash tun. Repeat this step every 10 minutes or so, observing the transformation to a sweet clear wort.
7. By the end of the starch rest, the wort should be fully converted, and quite sweet and clear. Slowly begin run off by opening the spigot. Use a hose on the spigot to run off directly into kettle while kettle is on stove, but wait until you have collected a few litres of wort before turning on heat.
8. As soon as water level falls below top of grain bed start adding sparge water a litre or so at a time, maintaining water level at grain bed level.
9. The temperature of the grain bed should be maintained between 70 and 75 degrees during the sparge. Since you are starting with near-boiling sparge water, which is cooling in your bucket throughout the sparge, this will pretty much take care of itself. However, if the temperature in the middle of the grain bed gets above 75 degrees, don't panic, but add cold water along with the hot sparge water.
10. When sparging is done and kettle is boiling, add hops and boil 1 hour. Mid boil hops go in as usual according to recipe.
11. 20 minutes before the end of the boil, re-hydrate 1 tsp Irish Moss in a few ounces of warm water. Add 10 minutes before the end of the boil.
12. If you are partial mashing, warm up the malt extract and add 15 minutes before the end of the boil. Once boiling resumes, submerge your wort chiller in the boiling wort and leave it there. This will effectively sterilize it.
13. Finishing hops go in as per recipe. I usually give whole hops an extra couple of minutes because they tend to clump around the wort chiller at first.
14. brew as usual.