



MINI-MASH BEERMAKING INSTRUCTIONS

B3 ? 975-D Detroit Ave. ? Concord, CA 94518 (925) 939-BEER

MINI-MASH

ESSENTIAL EQUIPMENT:

- 1) A B3 mini-mash ingredient kit.
- 2) A bucket with a spigot at the bottom (a bottling bucket.)
- 3) A 24x24 inch grain bag.
- 4) A kettle that will boil a minimum of 3 gallons. Usually a 20 qt. kettle is the minimum.

ASSUMPTIONS:

These directions do not include basic brewing directions as it is assumed that you already know how to brew using malt extract. The following instructions in conjunction with one of our Mini-Mash recipe sheets teach you how to do mini mashing, which is sometimes also called partial mashing.

STEPS:

Reminder: Take your White Labs liquid yeast out of the refrigerator and place at room temperature.

- ___ 1) Take your kettle, add 1.25 gallon of water, and turn on the heat. Heat to 170° F. Add gypsum if called for in the recipe. While the water is heating place your 24x24 grain sack in the bucket.
- ___ 2) Take the 5 LBS of malt mix (malted grains not malt extract) and stir the grain into the water. What you should have is thick, oatmeal like consistency. This is called the mash.
- ___ 3) Take the mash, pour it into the bucket with the bag, and cover it with the lid. We would like to maintain the temperature of this mash between 145-160° F. An optional but recommended step is to insulate the bucket with a blanket or sleeping bag by wrapping it around the bucket. Because this is a mini-mash and not a full blown mash there is no need to worry if the temperature gradually drops out of this range. The main bulk of the fermentable sugar will still come from the 5-8 lbs of malt extract that is included with this recipe.
- ___ 4) Allow the mash to sit for 45 minutes. A little less or a little more time is o.k.. During this 45-minute period the enzymes are activated by the heat and convert starches to sugar. This is called mashing.
- ___ 5) While the mash is going clean out your pot and heat 2 gallons of water to 175° F. This is called sparge water.
- ___ 6) After the 45 minutes of mashing time has elapsed and the sparge water is at 175° F uncover your bucket and using an insulated cup or PYREX measuring cup (ideal) scoop the 175° F water out of the pot and gently pour it onto the top of the grain bed. Repeat this process until you have 2" or so of water on top of the grain bed in the bucket.
- ___ 7) Place the insulated cup underneath the spigot and slowly open the valve to fill the cup. The liquid running out of the bucket is called sweet wort. Dump the first cup of sweet wort back on top of the grain. Repeat this process a total of three times. This is to filter out any grain particles that may have slipped through the bag. We call it recirculation.
- ___ 8) After recirculation, attach a section of 3/8" ID tubing onto the spigot on the bottom of the bucket. Drain this tubing down into any vessel that is large enough to collect 3 gallons of liquid. Another pot or bucket works fine. Whatever you choose, we will call it the collection vessel. The collection vessel needs to be placed below the mashing bucket. Having the sparge water on the stove- the mashing bucket on a chair (next to your stove)- and the collection vessel on the floor works great.
- ___ 9) Once the tubing is in place and set to drain into the collection vessel below, begin to let the wort slowly run out by cracking the valve on the bottom of the mashing bucket. Adjust the flow so that you are collecting 1/3 cup of sweet wort every 20 seconds. Using the ratio of drawing off 1/3 cup every 20 seconds, the sparge should last around 40 minutes. To know more about this process of sparging read the addendum.
- ___ 10) Maintain at least 1-2" of hot water on the top of the grain until you run out of hot water. This is important so that the draw of the water through the grain is even. If we poured water directly onto the grain it would channel through the grain and we would leave more sugar behind.

- ___11) After you have collected all of the wort in your collection vessel, take your cup and scoop out enough wort for a hydrometer sample and allow to cool. Transfer the wort in the collection vessel to your boiling kettle.
- ___12) If you are using a larger 7.5 gallon or 9 gallon kettle will you want to fill with water to the six gallon level at this time.
- ___13) At this point proceed as though it was a normal malt extract batch. Heat the sweet wort to a boil, turn off the heat, and add your malt extract as called for in the recipe.
- ___14) Go back to the sample of the mini mash wort, take a specific gravity reading, and write that down on your recipe sheet. When you are done you can dump the wort back into the boil kettle. The hydrometer reading of the mini mash is an optional step, but it is useful to see just how much sugar you got out of the grains. It does not replace taking a hydrometer reading after the batch is complete.

ADDENDUM:

Congratulations! Essentially you have just completed your first all-grain brewing experience (with a little malt extract thrown in.) Really quite simple, wasn't it? The only thing that separates a mini-mash from full-fledged all-grain brewing is that you need some additional equipment to be able to handle larger amounts of grain and liquid. The processes and time involved are nearly identical. What equipment would you need? Well you need an all-grain system. We offer our B3-150 all-grain system, based on using insulated coolers for a mashtun and hot liquor tank, for \$165.00. When you make the move to all-grain you will not be able to do a partial boil, so a larger kettle and wort chiller are a must have. Sometimes when you make the move to a larger kettle you also need to consider an outdoor, stand-alone propane burner. Page 39 of the catalog contains information and directions on how to use one of these types of systems.

For the more adventurous we also offer numerous Brewing Sculptures that bring scaled down professional brewing equipment right into your home. If you have questions please contact one of the brew guys at Beer, Beer & More Beer.

A note on sparging: The sparging process is basically rinsing. We are rinsing out the sugars that we created during mashing. We want the sparging process to last from 30-60 minutes. At 30 minutes we save time but we sacrifice a small degree of efficiency (the extraction of the sugars from the grain), for the longer the grain is in contact with the hot water the more the malt sugars are dissolved into solution and flowing out of the mashing bucket into the collection vessel. There is a point of diminishing returns somewhere between 30 and 60 minutes where your time is not worth a little extra sugar. We set the time to be around 45 minutes which a good compromise of efficiency versus time.

Some customers have asked us why we don't have more mini-mash kits. First they take up a lot of room and cold storage space is a premium. Second we try to create mini-mashes of the styles that really benefit from having their grain mashed. However, you can make up your own mini-mash recipes using our guidelines and following our instructions. Come up with a recipe that has 5 lbs of total malt (not malt extract). At least half of the malt should be enzyme bearing. You can refer to the grain descriptions online or in the catalog to see what malts are used for what purpose. How much extract you use will depend on the starting gravity you are looking for and the efficiency of the mini-mashes that you are currently doing. *Designing Great Beers* by Ray Daniels is the best recipe design book available and we highly recommend it to anyone who is thinking about designing mini-mash or all-grain recipes.

QUESTIONS?

Call 925-939-BEER or E-mail at info@morebeer.com
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