

## **Mini-Mashing: Adding Variety to Those Kit Brews**

*by Bill Bunning*

Last month's article dealt with using liquid yeast cultures to improve your homebrew. Another way for extract brewers to spice up their beers is to do a mini-mash. This is more than just adding specialty grains (crystal, chocolate, black patent, etc.) to your brews. Those grains just need steeping to extract their goodness. What I'm talking about is grains that need to be mashed, and therefore need to have the temperature controlled during the process.

Why do a mini-mash? Mini-mashes are a nice way to stretch a kit and save money. Instead of adding the malt extract kicker or extra DME, add a mini-mash. Grain is about \$4.00 a kilo while extract runs about \$11.00 a kilo. Another reason is it's a great primer for getting into all-grain brewing. You can mini-mash with the equipment you have right now! You can determine if all-grain is the way you want to go. You can also get some of those grains into your brew that you always wanted but couldn't. Grains that need to be mashed include pale malt (2-row, 6-row, pale ale, & Pils), Vienna, Munich, wheat, and aromatic to name a few. If you're interested in making a German beer and want to add Munich malt, do a mini-mash.

All that's needed for a mini-mash are the crushed grains, a mesh bag (like a hop bag), a thermometer, and some type of sieve. Start small, maybe only 1.5 kilos of grain. Consider making at least 50% of your grist (grain mixture) some type of pale malt. This will enable sufficient enzymes to convert the starch to sugar in a reasonable amount of time. Heat some water (about 2 to 3 litres per kilo) to approximately 75 degrees C. Put the grains (in the mesh bag) in the water and stabilize the temperature between 65 and 70 degrees C. Make sure the grain is covered (add more water if you have to). The lower temperature favors the enzyme beta-amylase and a more fermentable wort (more alcohol). The higher temperature favors the enzyme alpha-amylase and a more dextrinous wort (more body). These temperatures become more important when doing all-grain. For now, concentrate on keeping the temperature in the range. You'll need to maintain the temperature for about an hour. A great test for conversion can be accomplished with iodine. Take a teaspoon of mash liquid and put it in a white saucer. Add a drop of iodine. If the mixture turns black or purple, starch is present so continue mashing. If there is no colour change, conversion is complete.

While mashing the grain, heat up about 1.5 times as much water as you mashed with to about 75 degrees C. This will be your sparge water. When the hour's up or conversion is complete, fish out the grain bag and stick it in the sieve above your brew pot. Slowly pour the wort through the grain and try and filter out any small bits or particles. Then slowly pour the sparge water over the grain and get out all that residual sugar. From here, proceed as you would for an extract batch.

The mini-mash is an excellent way to increase the flavour of homebrew, a cheap way to stretch a kit, and the work involved is all done by the enzymes. Expect to get about 7 - 8 points of gravity per kilo of grain for a 22.5 litre batch. We're not going to get the efficiency we would get doing an all-grain recipe. But we are getting to experiment with mashing and adding a little bit extra to our homebrews. And since it's our homebrew, we don't mind doing a little extra work.