

**PURPOSE**

Mini mashes are great bench top testing tools used to address a range of brewing questions. Today, mini mashes will be used to determine mash pH of a range of grist bills. Each group will prepare one mash and measure the pH for discussion later in the day.

**MAJOR MATERIALS**

- Malt samples
- Coffee grinder
- Canning jars
- Hot water bath
- pH meter
- pH buffers

**MINI MASH COMPOSITIONS**

- Group #1
  - 100 grams Rahr North Star Pilsner malt
  - 300 mL 168-172°F mash water (collect from water heater)
- Group #2
  - 97 grams Rahr North Star Pilsner malt
  - 3 grams Weyermann® Acidulated malt
  - 300 mL 168-172°F mash water (collect from water heater)
- Group #3
  - 94 grams Rahr North Star Pilsner malt
  - 6 grams Simpsons Roasted Barley
  - 300 mL 168-172°F mash water (collect from water heater)
- Group #4
  - 92 grams Rahr North Star Pilsner malt
  - 8 grams Dingemans Special B
  - 300 mL 168-172°F mash water (collect from water heater)
- Group #5
  - 94 grams Rahr North Star Pilsner malt
  - 6 grams Gambrinus Honey malt
  - 300 mL 168-172°F mash water (collect from water heater)

**BASIC STEPS**

1. Weigh and mill malt sample per the group assignments above.
2. Transfer milled malt from mill to canning jar and clean mill for next group.
3. Add 300 mL of hot water to canning jar, close lid, shake for 15 seconds.
4. Transfer to hot water bath and incubate for 15 minutes.
5. Measure mash pH.