

## Honey and Biotech

# Standard Operating Procedure #503

## pH of Honey

**Laboratory:** Bioresearch

**Location:** RM 169

**SOP prepared by:** R. Sanders

**Last Revision:** 2/20/23

**General:** Honey is mildly acidic with an average pH of 3.9. This acidity is due to the acidic content of honey, mainly amino acids and organic acids that are responsible for the characteristic taste of honey. It is also important to mention that honey from tropical countries is generally characterized by lower acidity. This is due to the water content of these samples resulting in increased fermentation with a further decrease in the pH value. Relatively more acidic values ( $\text{pH} < 3.24$ ) indicate improper storage or impure samples.

**Safety:** eye protection

### Materials

honey samples  
pH meter (or test strips)  
beaker  
test tubes or small cups  
electronic balance  
distilled water  
serological pipettes and pump

### Procedure

1. In a test tube or plastic cup, make a 10% (w/v) honey solution by dissolving 1g of honey sample in 10mL of distilled water.
2. Using a handheld pH probe, measure the pH level of the honey sample and record on the work order form.
3. Rinse tip of pH probe off in a beaker of distilled water after taking reading and blot dry on a paper towel before testing the next sample.
4. Repeat steps 1-3 for 3 trials of each honey sample.

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