

The pH of the grow medium, nutrients, and water is very important to the health of your plants. Always check a solution's pH before using it to water your plants.

pH is measured on a (logarithmic) scale from 1.0 to 14.0.

- Pure water has a pH of 7.0 and is considered "pH neutral."
- pH below 7.0 is acidic.
- pH higher than 7.0 is alkaline.
- Tap water can range from 6.0 to 8.5.

A substance that decreases pH (pH down) is called an **acid**. A substance that increases pH (pH up) is called a **base**. A substance that helps nutrient solutions resist changes in pH is called a **buffer**.

Optimal pH:

• Soil: 6.2 +/- 0.2

Hydroponic: 5.5 to 5.8

Procedure

- Fill a container with water.
- Mix in the nutrients according to the manufacturer's directions.
- After mixing, use a pH meter to test the pH of the solution. Several pH meters are available online for under \$30.
- If the pH is not at the optimal level, use pH up-down to increase or decrease it.
- Always follow the manufacturer's instructions to test the pH and to calibrate, store, and maintain the pH meter.