HGV

Superior Plant Nutrition

Water Testing & pH Recommendations

The Importance Of Water Testing

Water Tests — Why Get One? Obtaining a water sample is a great practice for many reasons:

- Helps you determine what type of filtration (if any) is required. Dependent on where you're located, sometimes no filtration is needed.
- Helps you to understand what elements are already in solution, which can change the composition of the nutrient formula being injected into the garden.
- Municipalities may change chemicals used to treat water, which can alter the outcome of your pH and nutrient solution. Testing every 6 months can help determine if any changes were made, and what direction is best to move forward.

pH Up Recommendations

pH Up — What Is It?

- A product that increases the pH level of water to make it more alkaline.

When To Use It?

- When nutrient solution pH is below target pH and having the need to increase solution pH.
- Typically used when using RO or heavily filtered water.

Best Practices & Why?

- Always best to fully dilute pH up prior to injection or mixing.
- Given the caustic nature of pH Up, it has a high chance of reacting with other elements in solution (mainly calcium and sulfates).
- Diluting prior to use ensures there's an homogenous mix reducing the risk of "fallout".

Different Types

- Potassium Hydroxide
- Potassium Carbonate
- Potassium Bicarbonate
- Potassium Silicate

(see below for dilution recommendations)

pH Up Dilution Recommendations

Potassium Hydroxide 17% (HGV pH +)

- Dilution Rate: 50:1
- Usage (After Dilution): 15-35 ml/gal

Potassium Silicate 3% (HGV Level)

- Dilution Rate: 1:1
- Usage (After Dilution): 15-35 ml/gal

Potassium Carbonate / Bicarbonate -

- Dilution Rate: 0.1-0.25 lb/gal
- Usage Rate: Dependent on starting pH - 5-20 ml/gal

pH Down Recommendations

pH Down — What Is It?

- A product that lowers thepH level of water to make it more acidic

When To Use It?

- Use when pH is above target pH of solution
- Typically used when utilizing well or tap water

Best Practices & Why?

- Always best to obtain a water analysis to see what could be reacting with the water
  - This can determine what acid would be of best use for a pH down
- In some cases, diluting your pH down can minimize reactions

Different Types

- Phosphoric Acid
- Nitric Acid
- Sulfuric Acid

For additional help, contact your HGV rep or visit hgvnutrients.com/resources