

In order to get the maximum yield from your plants, you need to pay close attention to your nutrients as well as the pH throughout the plant's growth cycle. Monitoring is the key to ensuring your plant's health. It will prevent overfeeding (which can lead to a "burnt" quality), and underfeeding (resulting in poor yields), but you'll need to understand a few of the basics first.

Let's start with...

pH

Anything you add to your plants will have a pH value associated to it. The pH value measures how acidic or alkaline a solution (or substance) is. For example; distilled/pure water has a pH of 7.0, and it is considered neutral since the scale ranges from 0pH to 14pH. This is important since different nutrients are taken up by the plant at different pH values. Keep in mind that most plants enjoy a pH of 5.6 to 6.5 (alkaline). If the pH is too high, you'll get a build-up of salts (which are toxic to the plant) and this will prevent the roots from taking up nutrients as well as water. However, if the pH is too low, the plant is unable to take-up the nutrients because they'll be "bound up" at the roots. So the trick is to make sure these nutrients have free transport from the roots on upwards, and this is accomplished by monitoring and adjusting for the proper pH levels.

There are a couple of ways to measure your pH. You can use a "pH meter" or you can use "pH paper". Both are usually available at your local garden supply store. The meter is usually a hand-held unit and can be used repeatedly as long as you calibrate it from time to time. You get either a digital reading or a series of lights indicating the pH values. The litmus paper (or pH paper) is "one-time" use tool that will discolour depending on the pH and you match the colour to a scale provided to find the pH value. Both methods are easy to use and very helpful in determining the pH of your solution.