

# Wenke Wisdom

## Soil pH

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It really is important. But don't despair...it really isn't complicated. You just need to be aware that pH is a factor that can influence your gardening and learn what indicates a pH problem.

### **Just what is pH and why is it important?**

The pH is a measurement of acidity or alkalinity in the soil. Your soil pH influences whether or not your plants can make use of the nutrients that are available.

### **What kind of symptoms will my plants have if the pH is not what they like?**

Since pH can make nutrients in the soil available, plants will look like they need fertilizing. The leaves will be yellowing or pale green.

### **What pH does most plants like?**

The vast majority of plants grow well with a pH from 6.0 to 7.0. When you find out a specific plant prefers a pH of 6.5, keep in mind that most plants are tolerant of a fairly wide range and that value of 6.5 represents the middle of the range. Only a few require a specific number.

### **What is the range for pH?**

pH is a measurement on a scale of 0 to 14. A pH of 6.5-7.5 is considered neutral. All readings with a number value higher than 7.5 are considered alkaline. Slightly alkaline is 7.5-8.0 and moderately alkaline is 8.0-9.0. Readings with number value lower than 6.5 are considered acid. Slightly acid is 6.0-6.5 and moderately acid is 5.0-6.0.

### **What is the difference between tolerating and requiring a certain pH in the soil?**

Tolerance means the plant will not show a significant difference when the pH isn't what is ideal. For instance, delphiniums do best in a slightly alkaline soil, but will grow in neutral or slightly acid pH. A few plants require a certain pH and simply won't thrive without it. Azaleas and blueberries require very acid soil. Hydrangeas are a good indicator. In acid soil they will be blue and in alkaline soil they will be pink. White varieties will not be affected by pH.

### **Are there plants that actually like it acid?**

Almost all garden plants prefer a slightly acid pH. If your pH is moderately acid try growing azaleas, rhododendrons, clethra holly, foxglove, trillium, bleeding heart, bluebells, and evergreens.

### **Is there anything that does well where the soil is alkaline?**

For alkaline soil you don't want to adjust, try delphiniums, dianthus, boxwoods and spirea. Many salt tolerant plants grow in moderate alkalinity.

### **How can I measure the pH of my soil?**

Samples of soil can be tested by the University of Michigan. The MSU Extension Office has information and kits. They are located at 201 W. Kalamazoo Avenue, Kalamazoo. You can call them at 616-383-8830. They will give you information on where and how to take the sample.

### **Can I test the soil myself?**

The University's tests will be more accurate. There are home tests available. They usually involve a pinch of soil, a reactive agent, water, and mix. The color of the water will determine the pH. Remember if you do this at home, water also has a pH. Distilled water instead of tap water will increase accuracy.

### **Will the pH vary much in different locations in my yard?**

It can vary significantly. If you suspect that might be the case in your yard, simply take several soil samples.

### **There are different types of lime. What is the difference?**

Most lime is ground limestone, either calcitic lime (calcium carbonate) or dolomitic lime (calcium-magnesium carbonate). The type of lime available depends on what is found naturally in the area. Dolomitic lime is best in soils low in magnesium, but calcitic lime is usually less expensive. All lime is very slow to break down and won't affect your pH for months. You may also find hydrated (or quick) lime. It is more alkaline than ground limestone so it takes less to change the pH, but it is a fine powder that is harder to work with and you'll need to be especially careful not to let the caustic powder get into your eyes, nose, and mouth.

### **What are the differences between pelleted, granulated and powdered lime?**

To make lime easier to spread and quicker to dissolve, lime can be ground very fine and then made into pellets. Granular lime usually flows through a spreader fairly well, but is much slower to dissolve. Powdered lime is quick to dissolve, but can be very difficult to spread.

### **Is gypsum different than lime?**

Gypsum is calcium sulphate of lime. It is used more for improving drainage and adding calcium to the soil. Gypsum doesn't really change the pH.

### **How do I make my soil more acid?**

There are types of your favorite fertilizers that have an acid formula. They will say on the package. Aluminum sulfate will make the soil acid.

### **Is there a best way to apply these products? Is there a best time?**

The instructions on the product will give you rates for use. Please read the instructions as chemical analysis may vary with brand. If you have questions, we are here to help you.