

# Soil pH for Your Garden

## How do I know if my soils pH is okay?

The only way you really know if the pH of your soil is suitable for the plants you are growing is to get your soil tested, which is available at the [Curry County Master Gardeners Office in Gold Beach](#). Your plants will give you some clues if they are unhappy:

- Yellowing of leaves
- Failure to thrive

Most garden soils have a pH between 5.5 and 8.0. This number helps you determine when and how to adjust your garden soil's pH level. If the pH level is below 6, the soil may be too acidic, and you need to add ground limestone. If the measurement is above 7.5, the soil is too alkaline for most vegetables, and you need to add soil sulfur.

In general, soils in climates with high rainfall — such as east of the Mississippi River (particularly east of the Appalachian Mountains) or in the Pacific Northwest — tend to be acidic. West of the Mississippi, where less rainfall occurs, soils are more alkaline. But regardless of where you live in the United States, you should easily be able to find the lime or sulfur that you need at your local garden center.

Look at the chart below to see what pH different plants like.

### Optimum soil pH range for selected crops.

Alfalfa	6.5–8.4
Vegetables	6.5–8.2
Garlic	6.5–7.5
Grass for seed or pastures	5.5–8.2
Fruit trees	6.0–8.0
Highbush blueberries and cranberries	4.5–5.5
Rabbiteye blueberries	4.2–5.0
Azaleas and rhododendrons	4.5–5.5
Field or silage corn	5.5–8.4
Wheat	5.5–8.4

## **When should I test my soil?**

Typically your soil will have a higher pH in the spring and end of winter as compared to the fall. Soil pH can change more than 1 unit from spring to fall in sandier soils. Typically, pH is from 0.3 to 0.5 unit higher in spring than during the growing season. Take a soil sample long before you choose to plant if possible. Make the necessary amendments and re-test at the same time of year to judge whether or not you have been able to modify the pH in a desirable direction. Acidifying (lowering the pH) takes much more time, several years, than sweetening the soil (raising the pH).

## **How do I adjust my soil's pH?**

Applying limestone or elemental sulfur to your soil will help you adjust your pH. The best way to apply sulfur and limestone to your soil is to use a drop spreader (the same machine you may use to apply lawn fertilizer). This simple machine doesn't cost very much, and it helps you spread the material more evenly. Some nurseries may even loan you a spreader or allow you to rent one inexpensively. You also can spread these materials by hand if you're careful and wear gloves. No matter how you spread the materials, make sure that you work the soil well afterward to work the sulfur or lime at least 4-6 inches into the soil. Your soil uses limestone and sulfur most efficiently when it's tilled into the soil to a depth of 4 to 6 inches.

Other methods are described in the articles listed at the end.

## **Are there different types of limestone and sulfur?**

Most definitely! You can purchase and apply different types of limestone to your soil. The type you use may depend on the type of nutrients your soil needs:

**Dolomitic limestone** contains magnesium, as well as calcium. Magnesium is one of the nutrients that a soil lab may test for, and even though it isn't in the top three (nitrogen, phosphorus, and potassium), it's as important as calcium for plant growth. Use dolomitic limestone to adjust the pH if your soil test shows that your soil is low in magnesium.

**Pulverized limestone** is the most common and inexpensive acid neutralizer. Use this limestone if you don't need to add magnesium to your soil.

**Pelletized pulverized limestone** is a little more expensive than ordinary pulverized limestone, but it's cleaner, less dusty, and easier to use than both dolomitic and powdered limestone.

**Sulfur** usually only comes in powdered form or mixed with other nutrients, such as ammonium sulfate and magnesium sulfate. Sulfur is also called flowers of sulfur, soil sulfur, and powdered sulfur.

### **SOURCES AND ADDITIONAL INFORMATION**

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em8857.pdf>

<https://vric.ucdavis.edu/pdf/soil/changingphinsoil.pdf>

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw599.pdf>