WRITING SAMPLE

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Low pH in Soil Affecting a Carrot Plant

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You love fresh veggies, and there's nothing fresher or more delicious than beautiful homegrown vegetables plucked right out of your own backyard garden. Fresh-picked carrots (Carota sativus) are a nutritious and tasty snack or a delightful addition to a salad, and can be a fun component of a vegetable garden. However, if the soil in your area has low pH, you might find growing carrots to be a bit tricky.

Soil pH

Soil pH is a measure of the acidity or alkalinity. It's measured in pH units on a scale from 0 to 14, with pH 7 being neutral, anything below pH 7 being acidic and readings above pH 7 being alkaline. Various plants have specific pH requirements. Most plants will not grow well in soil that is outside their preferred pH range, which is why it's important to know the pH level of the soil in which you intend to grow your carrots.

Ideal pH for Carrots

According to gardening experts across the country, the ideal pH range for growing carrots is 6.0 to 6.8 — soils within these parameters will yield the biggest, tastiest carrots. However, if your soil is slightly outside this range, but still within a pH 5.5 to 7.5, you will likely be able to grow tasty carrots. If your soil pH is below 5.5, it is too acidic for carrots to grow well. The carrot seeds might not germinate at all, or they might germinate but produce little to no root.

Testing Your Soil

Testing your soil will help you understand how alkaline or acidic it is and whether it is suitable for growing carrots. You can purchase an inexpensive soil testing kit from a garden center or home improvement center. You can also order one online or send a soil sample to a soil-testing lab.

Amending your Soil

If your garden soil falls outside of the ideal pH range for growing carrots, you'll want to amend the soil. If your soil is too acidic (less than 6.0) for good carrot production, you can add calcitic or dolomitic lime (five to 10 pounds per 100 square feet to increase pH by one level) or wood ashes (two pounds per 100 square feet of soil) from a fireplace to increase alkalinity. If your soil is too alkaline (over 7.5), you can add elemental sulfur at the rate of .8 pound per 100 square feet for sand, loamy sand or sandy loam soil. For loam or silt loam soils, apply elemental sulfur at a rate of 2.4 pounds per 100 square feet. You can also use a commercial liquid soil acidifier (1 tablespoon to 1gallon of water to cover 10 square feet). Another way to reduce pH is by working in organic materials such as sphagnum peat moss, compost or manure. All of these additives are available at garden centers, where you might want to pick up another testing kit for checking your soil after you've amended it.