

# The Importance of Soil pH

**Why does soil pH matter?** Soil pH is an important factor that influences the growth and health of plants. Soil pH is a measure of the acidity or alkalinity of the soil, and it is measured on a scale from 0 to 14. The ideal pH range for most plants is between 6.0 and 7.0, which is considered slightly acidic. Plants that prefer more acidic soil require a lower pH, while those that prefer alkaline soil need a higher pH.

→ **Nutrient availability:** Soil pH affects the availability of essential plant nutrients. Most plant nutrients are available in the soil at pH values between 6.0 and 7.5. At higher or lower pH values, some nutrients become less available to plants. For example, at low pH values, aluminum and manganese can become toxic to plants, while at high pH values, iron, phosphorus, and zinc can become less available.

→ **Microbial activity:** Soil pH affects the activity of microorganisms in the soil, which can impact soil fertility, nutrient cycling, and disease suppression. Different microorganisms grow best in different pH ranges, and some microorganisms are better at cycling nutrients or stopping disease at certain pH levels.

→ **Plant growth and health:** soil pH affects the growth and health of plants directly. Some plants prefer acidic soil, while others prefer alkaline soil. For example, blueberries, azaleas, and rhododendrons prefer acidic soil, while beets, broccoli, and spinach prefer alkaline soil. If the soil pH is not suitable for the plant, the plant may have stunted growth, yellowing leaves, and other symptoms of nutrient deficiency.

→ **Soil structure:** Soil pH affects soil structure and stability. At low pH values, soil particles can become destabilized, leading to soil erosion and reduced water-holding capacity. At high pH values, soil can become compacted and hard, which can reduce root growth and limit water infiltration. **For healthy plant growth and optimal soil function, it's crucial to maintain the soil pH at the proper level.**

