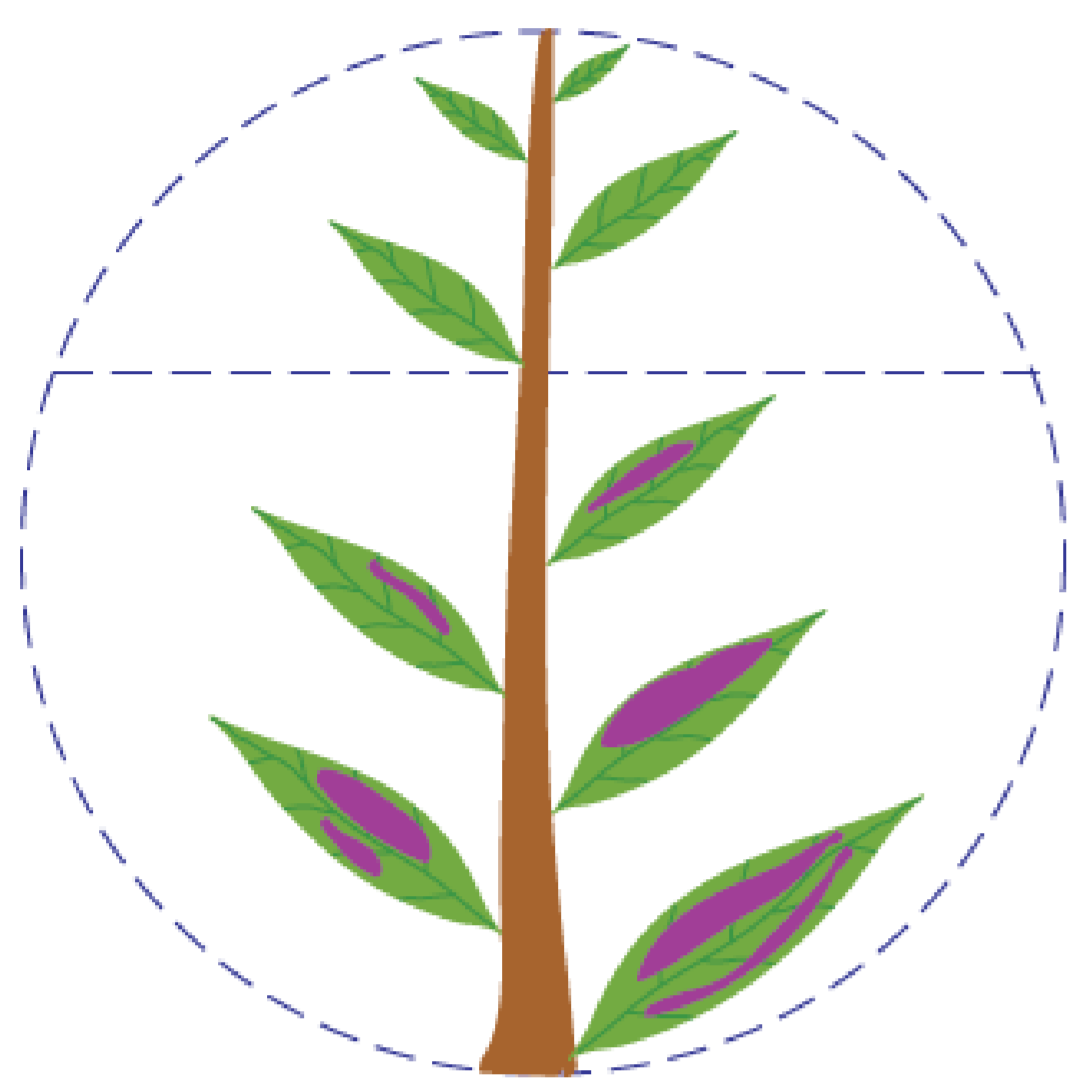


Phosphorus deficiency symptoms



Phosphorus is a vital component in the process of plants converting the sun's energy into food, feed, and fiber. Phosphorus plays a key role in photosynthesis, the metabolism of sugars, energy storage and transfer, cell division, cell enlargement, and transfer of genetic information. Phosphorus promotes early root formation and growth, as well as early shoot growth. Soil provides very small amounts of plant available P and this supply must be continually replenished from minerals and organic matter.

Symptom Description — The first sign of a P shortage is an overall stunted plant. Leaf shapes may be distorted and tissue may be dark green in color. With severe deficiency, dead areas may develop on leaves, fruit, and stems. Older leaves are affected before younger ones because of the redistribution of P in the plant. Some plants, such as corn, may display a purple or reddish color on the lower leaves and stems. This condition is associated with accumulation of sugars in P-deficient plants, especially during times of low temperature.



Lettuce



Maize



Sweet Potato



Barley



Maize



Wheat



Cabbage



Rapeseed