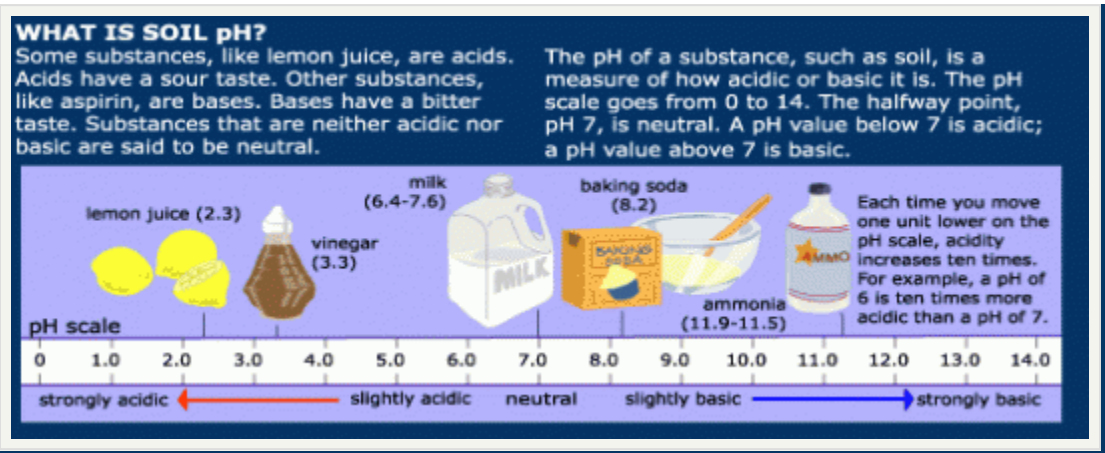
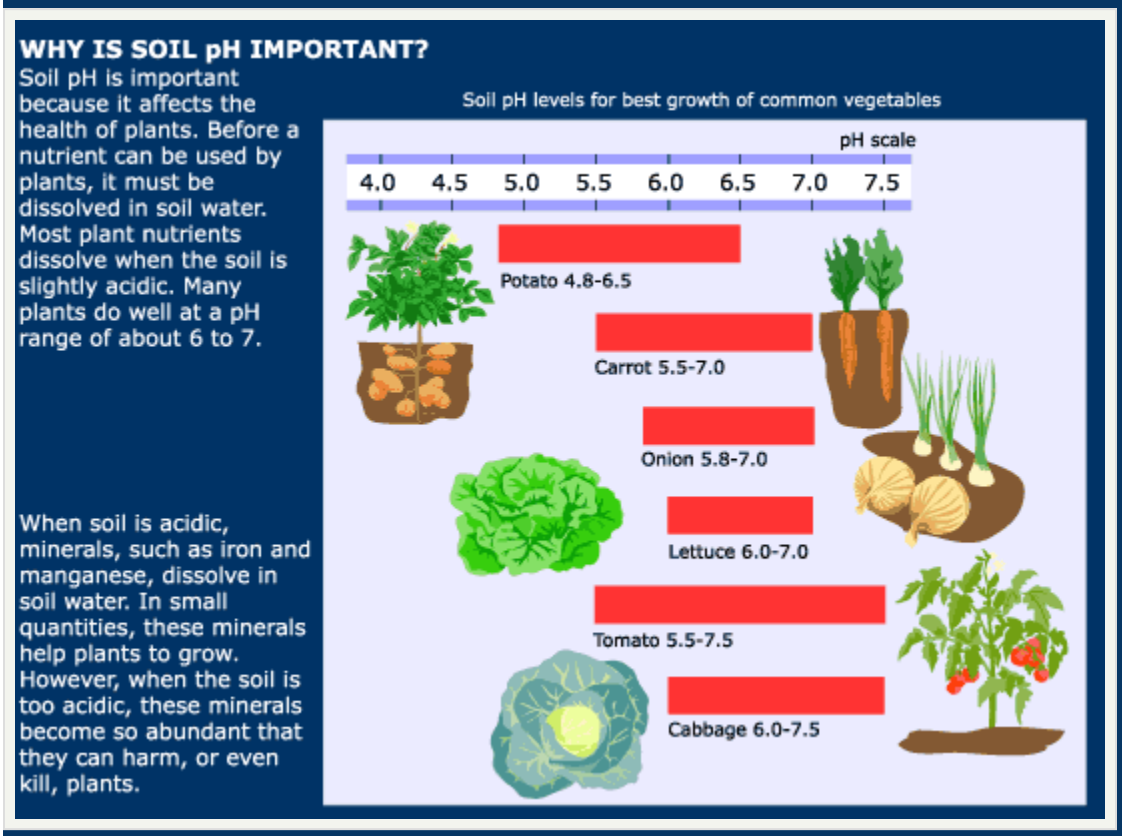
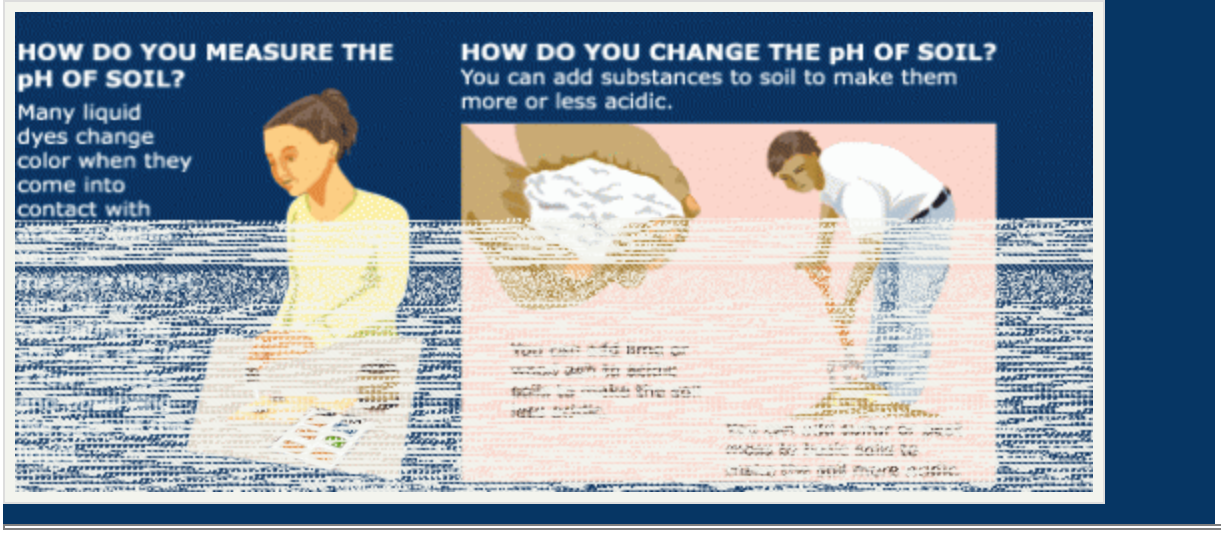
Soil pH


WHAT IS SOIL pH?
Some substances, like lemon juice, are acids. Acids have a sour taste. Other substances, like aspirin, are bases. Bases have a bitter taste. Substances that are neither acidic nor basic are said to be neutral.
The pH of a substance, such as soil, is a measure of how acidic or basic it is. The pH scale goes from 0 to 14. The halfway point, pH 7, is neutral. A pH value below 7 is acidic; a pH value above 7 is basic.
lemon juice (2.3)
vinegar (3.3)
milk (6.4-7.6)
baking soda (8.2)
ammonia (11.9-11.5)
Each time you move one unit lower on the pH scale, acidity increases ten times. For example, a pH of 6 is ten times more acidic than a pH of 7.
pH scale
0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0
strongly acidic
slightly acidic
neutral
slightly basic
strongly basic


WHY IS SOIL pH IMPORTANT?
Soil pH is important because it affects the health of plants. Before a nutrient can be used by plants, it must be dissolved in soil water. Most plant nutrients dissolve when the soil is slightly acidic. Many plants do well at a pH range of about 6 to 7.
When soil is acidic, minerals, such as iron and manganese, dissolve in soil water. In small quantities, these minerals help plants to grow. However, when the soil is too acidic, these minerals become so abundant that they can harm, or even kill, plants.
Soil pH levels for best growth of common vegetables
pH scale
4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
Potato 4.8-6.5
Carrot 5.5-7.0
Onion 5.8-7.0
Lettuce 6.0-7.0
Tomato 5.5-7.5
Cabbage 6.0-7.5



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