Food and Agriculture Organization of the United Nations

12b

Check out the pH poster for more information

WHAT IS soil acidification

WHEN THERE IS A BUILDUP OF H^+, THE pH OF YOUR SOIL DECREASES CAUSING ACIDIFICATION

SOME CAUSES OF SOIL ACIDITY

FERTILIZER

NH_4^+

INEFFICIENT USE OF NITROGEN FERTILIZERS

H^+

EXPORT OF FOOD AND FIBRE FROM LAND

(removal of plant residues from the field)

SOIL ACIDIFICATION IS A NATURAL OCCURRENCE IN AREAS WITH HIGH RAINFALL

RAINFALL & LEACHING

ACID RAIN

H^+ Mg^{2+} Ca^{2+} K^+

ANIONS LEACHED

HOW DOES SOIL ACIDITY NEGATIVELY IMPACT YOUR SOIL?

RISK OF TOXICITY

A decrease in soil pH = elements more soluble and toxic (ex: Aluminium)

One of the symptoms of aluminum toxity is the inhibition of root growth

NITROGEN · POTASSIUM · SULPHUR · PHOSPHORUS · MANGANESE · CALCIUM · MAGNESIUM

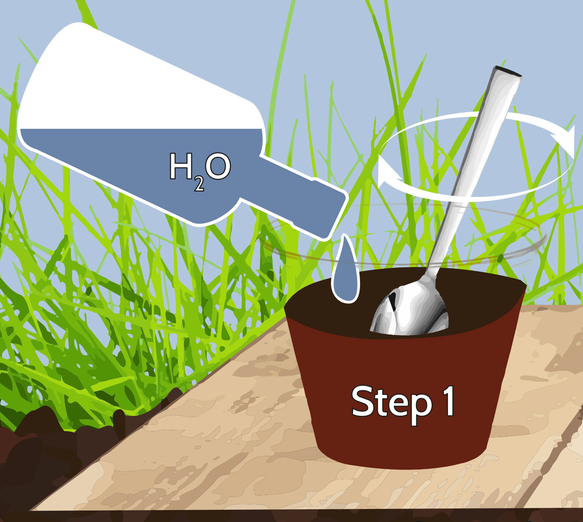
NUTRIENT AVAILABILITY

A decrease in soil pH can lead to key plant nutrients becoming unavailable

MICROBIAL ACTIVITY

- Decrease or change in microbial communities
- Decrease in Rhizobia bacteria

IS YOUR SOIL ACIDIC? LET'S CHECK TOGETHER USING THIS SIMPLE METHOD THAT YOU CAN DO AT HOME!



Step 1

Put some of your soil in a cup and add some water. Mix it into a paste.

Step 2

Add baking soda. If the mixture fizzes, forms bubbles or foams your soil is acidic.

Thanks to the financial support of

European Commission

© FAO, 2019
CA7160EN/1/12.19

GLOBAL SOIL PARTNERSHIP