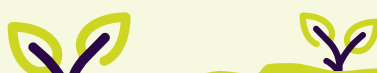




SOIL: THE MVP OF CROPPING



IMPORTANCE OF HEALTHY SOIL

PLANTS

- > Structural Support.
- > Oxygen.
- > Moisture/Water.
- > Nutrients.

WATER

- > Filters water.
- > Enables and improves water retention.
- > Stores water (groundwater).

CLIMATE

- > Mitigates greenhouse gases through carbon sequestration.

ECOSYSTEM

- > Supports microorganisms, including bacteria and fungi.
- > Provides resistance to erosion.
- > Suppress pests and parasites.

AGRICULTURE

- > Soils provide us with 98.8% of our food.
- > Soil is needed for plant and animal growth.
- > Cycles nutrients.

GOOD SOILS = HEALTHY CROPS!

So what makes a good soil:



SOIL COLOUR

The darker the soil colour the more fertile (which means the more that we can grow). The black/dark brown colour is made up by the organic matter in the soil which provides nutrients for the plants.



IDEAL SOIL PH

This can vary between crops but generally a pH between 5.5 and 7.5 is ideal because at this pH most nutrients in the soil will be available to the plants.



SOIL STRUCTURE

We want our soil to be able to have water and air travel through the soil but also hold enough water for the plants to use. Soil has 'peds', clumps of that soil breaks into when you dig and pores which allow water to move through.



SOIL ORGANISMS

3% of soil is made up of living organisms including bacteria, fungi, ants, beetles, earthworms and more! These organisms breakdown organic matter, helping improve soil fertility and can improve soil structure by moving through the soil.

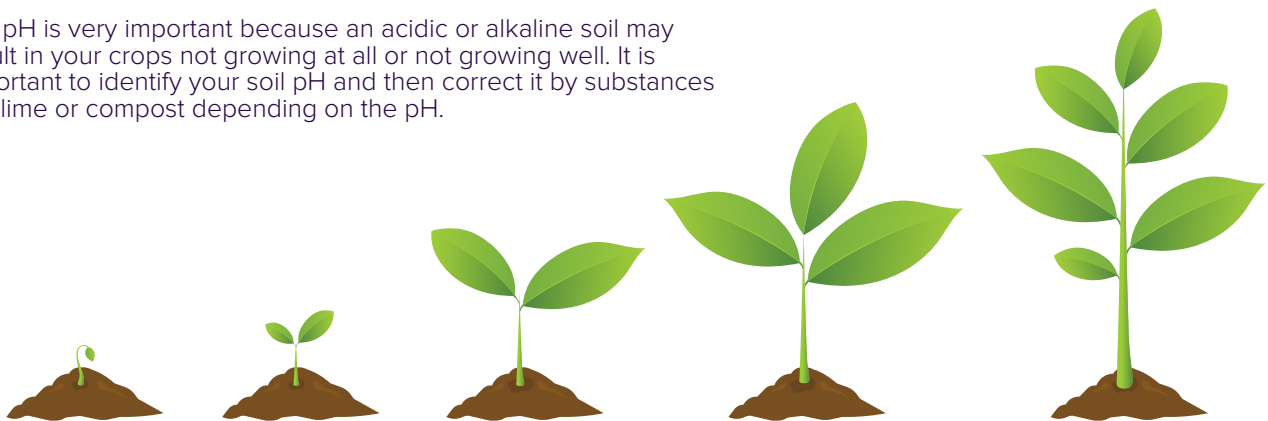


SOIL: THE MVP OF CROPPING



SOIL PH

Soil pH is very important because an acidic or alkaline soil may result in your crops not growing at all or not growing well. It is important to identify your soil pH and then correct it by substances like lime or compost depending on the pH.



ACIDIC < 6.5

STRONGLY ACIDIC < 5.5:

- > Toxicity e.g. aluminium, manganese, calcium and magnesium
- > Low essential nutrients e.g. phosphorous
- > Poor plant growth

ALKALINE > 7.5

STRONGLY ALKALINE > 9:

- > Deficiencies of minerals e.g. zinc, copper and boron
- > High levels of sodium
- > Poor plant growth

ACIDIC < 6.5

NEUTRAL
6.5 – 7.5

ALKALINE > 7.5

IDEAL PH FOR SOILS IS 5.5 TO 7.5