

Analysing soil pH and organic matter

Soil management

Because a good soil has organic matter which holds more water, always use a standard method to sample soil and remove a block of soil with a spade and mix it and remove any stones. Keep about 1 kg of soil to do test as pH is measured using pH metre scale from 0-14 and 7 is neutral

Equally, acidic soils have value below 6 and alkaline soils have value above 8 and most crops grow well in pH of 5.5-7.5. Fill glass to 2cm of soil, add water to 4cm high and stir for a minute and let it settle for 2 minutes and submerge pH paper in water with soil for 10 seconds and compare with pH chart to determine pH.

Add ash or agricultural lime to acidic soil and add compost, animal manure or chicken manure to alkaline soils to measure particulate organic matter, use need a wash bottle.

Furthermore, prepare small plastic water bottle with between 100-150mm hole near bottom of bottle and make a 15*20cm sack that lets water and clay pass through. Find a cloth with mesh of 1/4 mm, put bottle with holes inside bag of cloth, weigh 100g of soil from sample got from field and submerge bag with bottle in bucket of water and wash the soil until no more soil comes out of bottle and remember not use soil which is free of stones.

As you discard all the remaining debris inside bottle, transfer all contents of bag with water and particulate organic matter will float and sand will settle at the bottom. Floating organic matter is poured on the ordinary cloth that lets water pass through quickly.

Also repeat the process until no more organic matter is floating and dry particles of organic matter and measure once dry as a circle of 3-7cm means soil has medium level of organic matter and a circle of 2 cm indicates low organic soil matter.

Finally, add manure and compost or rotate with legumes and also mulch to increase organic matter.