

Soil NPK and pH testing



CaSTCo

Making sure that people count at the heart of rivers' recovery

Using the HI-3895 soil test kit for pH and NPK.

Collect your soil sample

- 01** Take 2 soil samples per 1000 m² (0.25 acre) of homogeneous in-field land. Collect two cups of soil per sample.
- 02** **Depth of extraction:** dig and discard the 5 cm of topsoil.
For grass: Sample at a depth of 5-15 cm
For trees: Samples from 20-60cm
For other plants (flowers, vegetables, shrubs): from 20-40cm
- 03** Mix all samples from each field together to obtain a homogeneous mixture of soil.

Equipment



pH test

- 01** Add half a teaspoon of your soil sample to the pH test tube and then add water to the lower graduation mark (2.5 ml): use the graduated card to measure. For best results, use bottled or distilled water.
- 02** Add one packet of the HI 3895-pH reagent to the test tube. Replace the cap and shake gently for 30 seconds. Allow the tube to stand for 5 minutes.
- 03** Match the colour with the pH colour-card and read the pH value, and record the score in the Vidacycle app.

NPK tests - preparation

- 01** Using the soil you collected earlier, add 1.5 cups of soil and 8 cups of water to a clean jar. For best results, use bottled or distilled water.
- 02** Stir or shake gently for at least one minute and make sure that all the soil is moistened. Allow to stand until the soil settles (from 30 minutes to 24 hours depending on the soil texture). The clearer the extract becomes, the better the results, however, a little cloudiness will not affect the accuracy of the test.

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Nitrogen (NO₃) test

- 01** Use the pipette to transfer 2.5 ml of the clear general soil extract (prepared earlier, see NPK tests - preparation) to a clean test tube.
- 02** Add one packet of HI 3895-N reagent to the tube, replace the cap and shake well for 30 seconds to dissolve the reagent.
- 03** Allow the tube to stand for 30 seconds, then match the pink colour with the Nitrate colour-card. Record the score in the Vidacycle app.

Phosphorus (P₂₀₅) test

- 01** Use the pipette to transfer 2.5 ml of the clear general soil extract (prepared earlier, see NPK tests - preparation) to a clean test tube.
- 02** Add the contents of one packet of HI 3895-P reagent to the tube, replace the cap and shake well for 30 seconds to dissolve the reagent.
- 03** Match the blue colour against the Phosphorus colour-card for the P concentration, and record the score in the Vidacycle app.

Potassium (K₂₀) test

- 01** Use the pipette to add 0.5 ml of the clear general soil extract to a clean test tube. Fill the tube to the lower graduation mark (2.5 ml) with water.
- 02** Use the pipette to add 0.5 ml of the clear general soil extract to a clean test tube. Fill the tube to the lower graduation mark (2.5 ml) with water.
- 03** Match the test tube against the Potassium reading card, and record the score in the app.

