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Is it really October already? We are definitely on the home straight towards the end of the year.

This past month we exhibited at the York Peninsula Field Days which was a great success. We had a huge amount of interest for our [Weather Stations](#) for farming applications; specifically for monitoring weather conditions when spraying and baling. A lot of farmers were excited by the [IC6250AU](#) Vantage Vue Weather Station and the [IC3349SSC](#) Watchdog Sprayer Station.

In this month's newsletter we are taking a closer look at pH meters. We answer the top seven questions asked about using them and also explain how they are used in agricultural applications. We will profile one of our most versatile and accurate pH meters, our [EC-PHTESTR30](#), which is perfect for use both in the lab and in the field.

Remember; if you have any questions regarding tests you need to conduct or specific instrumentation please don't hesitate to give us a call.

Until next month...

Tyson Grubb



Top 7 pH Meter Questions

[pH meters](#) are a widely used electronic instrument for testing the pH (acidity or alkalinity) of liquids. In some cases they are also used for measuring the pH of semi-solids such as food and moistened soils. Below are some commonly asked questions about pH meters.

1. Why do I need to calibrate my pH meter?

As pH electrodes age, their measuring characteristics can shift. Calibration is used to allow the meter to make corrections for these changes and keep the readings accurate.

2. How often do I need to calibrate my pH meter?

How frequently you need to calibrate your meter depends on how accurate you need the measurements to be and how frequently you are using the meter. If you use your meter every day you should calibrate it daily, if you use it a few times a week, weekly calibration would be suitable. It is best practice to calibrate your meter before each use as this will ultimately give you the most accurate reading possible.

3. How should I store my pH electrode?

pH electrodes have a glass bulb that needs to be kept hydrated. To ensure longer life and more stable measurements, pH electrodes should be stored in [electrode storage solution](#).



Product of the month - [EC-PHTESTR30](#)

The EC-PHTESTR30 is ideal for quick and accurate pH checks where frequent pH testing is required. It is a robust waterproof meter with a large display, along with a user replaceable electrode sensor.



This helps to keep the bulb hydrated and minimise leakage from the internal electrolyte solution. If you do not have any storage solution, [pH 4 or pH 7 buffer](#) can be used. Distilled or deionised water should never be used for electrode storage.

4. What items do I need to calibrate my pH meter?

To calibrate your pH meter you will need your pH meter, at least one [buffer solution](#), a clean dry beaker or cup and water for rinsing before and after calibration.

5. How can I clean my pH electrode?

For most water testing applications, simply rinsing with distilled water will suffice. A mild detergent and tap water solution can also be used. There are also [electrode cleaning solutions](#) available.

6. How can I measure soil pH?

Prepare a sample by combining a 10g soil sample with 10ml of distilled water in a clean dry jar, beaker or sample container (a 1:1 solution). Mix these thoroughly and allow the mixture to settle for 10 minutes. Carefully insert the probe so that bulb is in the soil part and the junction is in the supernatant (the water above the settled soil). Then allow the reading to stabilise. Alternatively you can use a product like the [pH spear](#) to allow you to make pH measurements in-situ.

7. What is temperature compensation?

The pH value of a solution is temperature dependent. As a result, pH readings should be compensated for temperature to standardise the readings. pH meters will have either no temperature compensation, manual (MTC) or automatic temperature compensation (ATC). The meters with MTC need you to enter a temperature reading in manually and the ATC meters will take a temperature reading and adjust the pH reading automatically.



Measuring pH on the farm

pH is something we all have probably learnt about at school, and if you have a pool at home you might know it as something you have to measure. Even though most of us are aware of what pH is, not a lot of us fully understand it or the many situations it is relevant

pH is the measure of a substances acidity or alkalinity on a scale of 1 to 14 ([see pH scale](#)), with 1 being highly acidic, 7 being neutral and 14 being highly alkaline. As with any industry, the uses for a pH meter in farming and agriculture can be quite specific.

Chemical Spraying - pH is an important factor when diluting chemicals for spraying, and in particular the pH of the water used to dilute the solution needs to be tested. The effectiveness of the chemicals can be altered if the mixing water does not have a neutral pH, the consequences being that time and money is wasted spraying chemicals that don't give the desired results.

Bore Water Monitoring - Another common application of pH meters (combined with a conductivity meter) is to measure the pH along with conductivity (or salinity) of bore water. Unlike mains water which has a regulated pH around neutral 7 pH, bore water pH can vary depending on the bore so it is best to measure the pH of each bore at the time of use, this will

allow you to determine how suitable the water is for you application.

Soil pH Monitoring - The pH of your soil can effect the growth of your crops and so it is important to keep an eye on this important factor (refer to question 6 in the top 7 pH meter questions above).

The [EC-PCSTESTR35](#) is the perfect pH and conductivity meter for use on the farm as it is extremely reliable, accurate, durable and waterproof. It is able to withstand occasional knocks and bumps, so perfect for rough outback conditions.

Call us on 1300 737 871 to chat about which pH meter best suits your specific application.



What do you need?

[CLICK HERE TO CONTACT US](#)

In less than 3 business hours you will have an answer from one of our experts.
There is more available than listed online!