University of Glasgow use pH logging on TRUEscience meter to advance their research

A recent study at the University of Glasgow has made use of the logging feature on the new TRUEscience pH meter to advance their research on Equine gastric conditions.

We spoke with Viola Farci to find out how the built in logging feature allowed them to collect data in a way not previously possible.

Equine feed study

Viola Farci and Anna Garber at The School of Veterinary Medicine conducted the work, investigating how diet can change stomach pH and affect the health of horses.

"Different feeds can cause a drop in pH, which in turn can lead to Equine Gastric Ulceration Syndrome or EGUS. Our work has reviewed three different feeds to see what affect they have in an in-vitro simulation of horse stomach conditions" Viola explained.

The three feed options were prepared and mixed with acid and salts in large beakers, then adjusted to the right pH to mimic the live conditions found in horse gastric tracts. The beakers were then held at set temperatures in a water bath for 6 hours, simulating the real digestion time.

Using TRUEscience to develop the work

In order to advance the work, two key features of the TRUEscience system were used; monitoring the three samples at once,

and using the logging feature to take frequent readings throughout the 6 hour period.

"We had one TRUEscience cap on each beaker, all feeding back to the same Android tablet." Viola told us,

"It was really easy to set up the logging, to start at a set time and take a reading every 5 minutes throughout the digestion period. This would not have been possible without the logging feature."

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The TRUEscience app logging pH at set intervals over the test.



"We had 3 pH caps all logging a reading every 5 minutes for the 6 hour test - this would not have been possible without the logging feature" - Viola Farci and Anna Gerber at The School of Veterinary *Medicine, University of Glasgow.*

Previous studies in the field have recorded pH changes much less frequently at 1 hour or more intervals, meaning the researchers don't get such a full picture of the stomach conditions throughout the whole digestion.

Easy to use, the team recommends the meter to their colleagues

"The kit, the app, calibration – everything was very easy to set up and navigate" said Viola

The group has even recommended the meter to the rest of their department following the success of the study; "Lots of the features could really help our colleagues in their work too, so we have told everyone about our study and would recommend the TRUEscience meter to anybody"

Viola and her group will continue to use the TRUEscience meter in their future research, developing our understanding of Equine health.

Find out more about the TRUEscience smart pH meter at www.truescience.co.uk