

Evaluating the Accuracy and Usability of Low-Cost Phosphorus Testing Kits

Emma Bird and Sue White

Research objectives

To evaluate the accuracy of low-cost home phosphorus testing kits for use by farmers in participatory monitoring.

To identify design or procedural issues which might limit their potential usability by farmers.

Key messages

- Project will evaluate the measurement accuracy of a range of phosphorus testing kits and stakeholder preferences
- Project will recommend the best available kit(s) for use by the Environment Agency and partner organisations in engaging farmers in monitoring work

Contact: e.bird@cranfield.ac.uk

Description of research/methods

Suitable testing kits have been identified through web searches and visits to aquarium shops.

Kits have been tested under laboratory conditions against a range of chemical standards, with and without added sediment. Chemical standards are of known concentrations to allow the accuracy of the kits to be tested under controlled conditions.

The kits are now being tested in the field in low sediment and high sediment conditions. Samples will be collected at the same time and analysed in the laboratory to understand their performance under real conditions.

The kits have also been trialled with selected farmers to identify design or procedural issues which would limit their usability by farmers.



Laboratory testing: checking standards

Exchanging
knowledge

Sharing
expertise