WFP PLANS AND AUDITS

- [x] SOIL
- [ ] CARBON
- [ ] BIODIVERSITY
- [ ] ANIMAL HEALTH & WELFARE
- [ ] INTEGRATED PEST MANAGEMENT

Planning 4 Change

Soil Benchmarking for Whole Farm Planning

From May 2025, new requirements for the Basic Payment Scheme (BPS) mean that regular soil analysis will be required as part of the Whole Farm Plan (WFP). All region 1 land which receives applications of artificial fertilisers and/or organic manures must be sampled by 2028, and every 5 years thereafter.

Why measure soil health?

Healthy soils are the foundation of a productive and profitable farm. Regular testing and monitoring of soil organic matter help guide management decisions, such as adjusting inputs or incorporating livestock into crop rotations. This is a fundamental part of the whole farm planning process and setting an objective of restoring or improving soil health – and reducing soil erosion – can lead to improvements in plant and animal health as well as benefit the long-term resilience and sustainability of the farm business.

What should you measure?

To comply with Whole Farm Plan requirements, soil analysis must be carried out by a lab, and include details on pH level, Phosphate (P), Potash (K) and soil Carbon (measured as organic matter) as a minimum. It is also recommended (although not mandatory) that analysis includes Magnesium and/or trace elements. The Carbon test may be a Loss on Ignition (LOI) or a Dumas test. Both methods provide accurate readings of the Carbon levels in soil, but make sure to stick with the same method in future analysis so you can compare like with like.

From 2028, businesses will also be required to create a Nutrient Management Plan (NMP). A NMP provides recommendations for crop and grassland nutrient requirements, based on the determined nutrient status of soils. It is recommended that in Scotland, NMPs are prepared using PLANET (Planning Land Applications of Nutrients for Efficiency and the environmenT).

Contacts

Soil Association advice and support

Contact our Farming and Land Use Team: 0131 370 8150

Email: contact@soilassociation.org

Find out more at Planning for Change: A Whole Farm Approach

Full scheme guidance: Whole Farm Plan full guidance

SRUC Soils resource: Valuing Your Soils

Funding for this programme is being made available through the Knowledge Transfer and Innovation Fund (KTIF), which is funded by the Scottish Government.

How to take a soil sample

Take samples from representative locations across the field walking a 'W' pattern pattern, taking at least five samples to a depth of 7–10cm for grass and 15cm for arable fields on each leg of the W. Note down variations in soil type, soil management, texture and clay content, and to get a combined sample for each field, mix 5 core samples in a bucket. You can use GPS coordinates or What3Words to accurately test in the same place each time.

Take samples at the same time of year, not too soon after cultivation, manure spreading etc, and at least two months after amendments/inputs. Avoid sampling wet or frozen ground, and record field conditions (hot, dry, wet, soil temperature etc). Use the same soil tests and preferably the same lab each time.

SOIL ASSOCIATION EXCHANGE

Soil Association Exchange soil analysis can be used in Whole Farm Plans

Other ways to monitor soil health

Dig a hole! Using your senses to see, smell and feel your soil can tell you a lot about its condition. It should come apart quite easily in your hands, smell pleasant, and be loose enough that plant roots can grow freely. A Visual Evaluation of Soil Structure (VESS) is a good way to look for issues like compaction, as is a water infiltration test – healthy soils should hold water and release it for crop growth. Counting worms is also a good indicator of biological condition, especially if counted in spring or autumn – lots of worms can indicate good biological condition.

Soil in good health should be 25% water, 25% air and 50% organic matter

Improving soil health

There is a range of ways that farmers and crofters can improve or restore their soil, including:

- Monitoring for management, e.g. optimising pH for crop yield
- Increasing organic matter, e.g. through integrating livestock or adding bulky manure or compost
- Reducing soil disturbance – both depth and frequency
- More diverse crop rotations
- Reducing soil compaction
- Improving water infiltration
- Minimising chemical inputs (to improve soil biology)
- Keep soil covered, e.g. with green manures and cover crops
- Intercropping, or companion cropping
- Integrating trees
- Restoring peatland.

Benefits of benchmarking soil health

Understanding the chemical, physical and biological status of a soil can potentially save businesses money by reducing inputs, emissions and possible negative environmental impacts.

Using regular soil analysis to assess pH level and soil carbon as well as available crop nutrients including nitrogen (N), phosphate (P), potash (K), is fundamental to making informed decisions about soil management.

Benchmarking soil health enhances productivity by guiding improvements over time. It supports reducing chemical inputs, identifying and alleviating compaction (which lowers flood, drought, and erosion risk), and improving soil structure and soil organic matter (SOM) content. These changes boost below-ground biodiversity and strengthen resilience, contributing to whole farm business resilience.