



Forage analysis for
optimal livestock
nutrition management



With over 30 years' experience in animal feed analysis, Sciantec is one of the UK's largest providers of specialist forage analysis. We determine the nutritional quality of forage to allow herd nutrition, crop nutrition, and fertiliser programmes to be tailored. This helps provide the highest quality forage possible for optimal animal welfare and productivity.

Sciantec offers standard and bespoke services for specific customer needs, including nutrition, vitamin, minerals, mycotoxin, and microbiology analysis. We test forages including fresh grass, grass silage, maize silage, whole crop, Alkalage, Lucerne, hay and haylage, as well as other forages including crimped grain.

Sciantec is a member of the Forage Analysis Assurance Group. We are UKAS and GMP+ accredited to satisfy quality management and assurance schemes for full legislative requirements.



Why test forage and fresh grass?

Forage quality has a considerable impact on nutrient and dry matter consumption in livestock. High quality forage is easier to digest, optimising animal nutrition and improving both productivity and profitability.

- Understanding the nutrient content of forage helps ration and plan herd nutrition for optimal livestock performance.
- Crop nutrition and fertiliser plans can be tailored to provide the highest quality forage possible
- Incidence of nutrition-related diseases such as sub-acute ruminal acidosis (SARA) is reduced
- Long-term grassland provides an effective carbon sink, helping to offset emissions and supplying a potential income stream.



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Analysis Options

NIR

In Near Infrared Reflectance spectroscopy (NIR) analysis, infrared light is used to analyse feed materials for nutritional content. The results are generated from the correlation between the spectra produced by scanning a material through the NIR instrument and the calibrations that have been developed.

Nutritional results by NIR are provided within 24-48 hours, with individual result reports for each sample. The results are reported on a 'Dry Matter' (DM) basis stated as low, standard, or high for each parameter reported. This test is the cheapest and quickest option available.

Wet chemistry

The more traditional way of testing samples, wet chemistry is generally capable of providing more 'robust' results than NIR.

However, NIR has broader testing parameters and some wet chemistry tests are designed specifically for testing feed samples as opposed to forages. Results are provided within 10 working days. Wet chemistry testing is more expensive than testing by NIR, and as results are reported on an 'as received basis', they require a conversion to DM.

How to take forage samples for analysis

The best way to take a representative sample is to take material from multiple areas of a clamp, field, or from 6-10 bales. They should then be mixed thoroughly in a large clean container or plastic bag, before filling the sample bag with a portion of this.

When sampling fresh grass forage:

- Use clean scissors to cut a couple of handfuls of grass 2cm above the ground at 6 to 10 sites across the field
- Follow the optimal W pattern across the area, sampling as you go.

For all samples:

- Fill your sample bags (one per sample) and ensure all the air is squeezed out
- Clearly label the sample bags in block capitals, ensuring that they correspond with the details entered on the template request forms provided by the laboratory
- Samples can then be posted to the laboratory for testing.
- Avoid sending samples towards the end of the week to prevent them being held in transit over the weekend.

Please contact us to discuss which analysis option is best for your requirements.

Contact us on 01757 242400
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