



Going Dry Enhances Forage Insight and Maximises Yield

Q&A

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With dairy prices fluctuating over the last 18 months, the pressure on farmers to maximise yields from their herds has never been greater.

Despite this, latest developments in silage analysis used elsewhere in the world have been slow to make their way to the UK due a lack of incentives to invest, leaving British farmers with a dearth of choice when it comes to accessing innovations.

Now, a method of silage testing new to the UK and Ireland has opened up possibilities for greater insight into ruminant nutrition, and brings about a higher level of accuracy.

Why is it important to know the make-up of my silage?

Understanding the precise composition of feedstuffs is vital in order to know what's necessary to optimise your cattle's diet.

As farmers, feed firms and agriculture consultants will know, giving cattle exactly the right nutritionally balanced feed in turn brings about optimised and increased milk yield, and crucial cost efficiencies.

How do you know what's in my silage?

Feed and forage samples are analysed using Near-Infrared Spectroscopy (NIRS), a method that uses near-infrared light. The resulting reflection is compared to a database of corresponding values to derive key information from the composition of different feedstuffs, much in the same way as fingerprints are used in crime detection.

What's wrong with what I'm doing now?

Nothing at all. But in order to rightly exploit every bit of nutritional value from feed and forage farmers, feed suppliers and agricultural consultants are relying on underdeveloped agricultural analytical methods first developed in the 1960s, which reference outdated databases.

Traditionally, fresh samples of feeds and forage are sent to a testing laboratory and analysed using NIR while wet. Although this method works, and analysis takes less than 60 seconds, the risk is that the results will not be accurate and could lead to improperly nutritionally balanced diets, hampering efforts to get the very most from livestock yield.

So the sample results are inaccurate?

Not at all, but the moisture in a fresh and wet sample acts like a 'fog', clouding what's visible when analysis is performed, so results aren't as precise as they could be.

But I've been doing it that way for years?

Yes, and it's easy to go along with the status quo, especially when there's been such a lack of innovation. But with the increased pressure on farmers to get the very best from their herd, a change is overdue.

What's different about the new testing method?

Crucially, silage samples are dried and ground into a powder-like state before being scanned in the laboratory. This gives a much more homogenous sample that can be interrogated more comprehensively, which in turn yields much greater accuracy from more reliable and repeatable results.

By drying the sample and removing the moisture, we're able to make a much more confident prediction of the make-up of the material, giving farmers a much better insight into what they're feeding their cattle.

And, unlike fresh samples that are frozen and thawed, subsequently changing their structure, a dried sample does not degrade over time. This means that the sample materials can be kept for further analysis at a later date.

Are the results compared against the same databases?

No, and that's the important bit. The size and material specificity of the database that the results are compared to is critical.

Until now, the UK has only had ready access to grass, maize and whole crop silage data. Using dried NIRS analysis, the breadth of feed samples that can be analysed in the lab is vastly increased, and can include silages such as grass, maize, Lucerne, barley, oats and peas; fresh grass, hay, haylage, Total Mixed Ration, materials and concentrates.

What can you do with this new information?

We then translate the results into nutritional information, which is essential for improving feed composition for cattle, and can give advice and recommendations on enhancing silage and ration optimisation.

We're also able to work with specific calculation rules, which can be applied to local feed value systems.

How long does it take?

Typically, using the dried and ground analysis, results can be delivered in just 48 hours.

How much does it cost?

In order to take advantage of the greater insight into your cattle's rumination, and have the ability to adjust rations and diet accordingly, our comprehensive package costs £40 per sample.

Who are you?

Eurofins Agro Testing UK engages in research, either on its own or in collaboration, with other knowledge institutions with the aim of expanding the parameter results that can be derived directly from the NIRS test.

The company is part of Eurofins Scientific, and as such has global access to specialist centres of excellence testing laboratories, with the highest level of accreditation, quality and resources, providing customers with access to state of the art analytical methods and consultancy advice.

How do I find out more?

For more information, phone Eurofins Agro Testing UK on 0845 604 6740 or email agrotesting@eurofins.co.uk



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