



Feedstuff Sampling



Welcome to this self-sampling kit for feed analysis. In here you'll find:

- ◆ **Advice** on how to sample
- ◆ **Analysis Request Form** for you to tell us which tests you want done
- ◆ **Sample Bags**
- ◆ A **Free-post Bag** to send your samples and Analysis Request form to us.

This pamphlet will guide you on how to take samples. It covers:

- ◆ Tests Available
- ◆ Sampling Procedures for feedstuff samples
- ◆ Size of sample required
- ◆ Delivery to the laboratory

Tests Available

Pasture

Profile Name	Tests Reported
Feed	Dry Matter, Crude Protein, Acid detergent fibre (ADF), Neutral detergent fibre (NDF), Soluble Sugars, Ash Digestibility (DOMD) and Metabolisable Energy (ME)
Spring Pasture Profile	Mixed pasture profile ,Chloride + Protein and ME
Complete Pasture Profile	Pasture = Mixed pasture profile + protein and ME Clover = Basic Plant , Mo
Extended Feed Profile	Pasture Feed + Mixed pasture profile, Chloride
Additional tests	Nitrate-N, Iodine, DCAD*

* Wet Chem or NIR prediction—please specify on form

Silages

Profile Name	Tests Reported
Silage Profile	Dry Matter, Crude Protein, Soluble Sugars, Starch, Ash, Acid Detergent Fibre, Neutral Detergent Fibre, Digestibility (DOMD), Metabolisable Energy, pH and Ammonium N (as % Total N), Lactic Acid
Volatile Fatty Acid Profile (VFA)	Lactic, Acetic, Butyric, Propionic and Formic Acids

Other Tests

All feeds	Dry Matter + Metabolisable Energy (DMME)
All feeds	Dry Matter only
Forage Maize (pre-ensilation)	Dry Matter, Crude Protein, Ash, ADF, NDF, Starch, DOMD, ME
Additional tests	Starch, Crude Fat

General Comments

Sampling Method

Feedstuffs can be particularly variable and great care must be taken to get a representative sample. Approximately 1 kg per sample is required for silages, 500g for greenfeed and pasture.



Pasture & Greenfeeds

Choose typical paddocks and sample prior to grazing. Take samples from 12 to 20 points, walking in a random or zig-zag pattern and avoiding dung and urine patches and fence lines. Cut to grazing height (about 5 cm from the ground) with clean scissors or shears. Fill the sample bag, seal, complete the analysis request form and courier to the laboratory. Chill samples overnight in the fridge if unable to send to the laboratory on the same day. For nutrient analysis also, a larger sample may be required, particularly when clover analysis is desired.



Hay

Take a handful from at least 6 bales, avoiding the outside edges. Fill sample bag, seal, complete analysis request form and post to the laboratory.



Pasture Silage & Balage

Take material from about ten sites across a freshly cut face of the stack (or from inside wrapped bales, avoiding the edges), combine on a clean plastic sheet and fill sample bag. Squeeze out the air, seal, complete analysis request form and post to the laboratory.

Maize Forage

N.B. The proportion of cob and stover is variable (within paddock and between paddock variation found—dependent on variety, growing conditions and harvest process) so that Dry Matter results from one sample to another may differ widely.

Stack Sampling—samples for DM-only should be taken before the ensiling process has commenced (before the stack is covered). Sub-samples should be collected with a corer in order to reduce variability. Otherwise, scoop or hand sub-samples may be adequate providing enough are collected to represent the stack (see table 1). Collect the sample for analysis by mixing the sub-samples on a clean plastic sheet and quartering and re-mixing until 1kg size. Place in a Ziplock bag or similar and squeeze the air out. Seal the bag, complete analysis request form and post to the laboratory. Place in freezer (or chill well) if sample cannot be sent on the day of sampling, and received by the laboratory on a working day.

Truck Sampling—A bulk sample can be collected from a number of trucks with a minimum of 4 sub-samples per truck. See table 1 below for accuracy requirements. The bulked sub-samples should be placed on a clean plastic sheet and the lab sample collected by quartering and mixing until 1 kg is collected. Place into a Ziplock bag or similar, squeeze out air and seal. Complete the submission form and post to the laboratory. Place in freezer (or chill well) if sample cannot be sent and received by the laboratory on a working day.

Desired DM accuracy (± DM)	Number of samples required	
	Truck/paddock (hand samples)	Stack (auger corer samples)
4.0	4	-
2.5	-	3
2.0	8	-
1.5	16	4
1.0	25	8
0.5	-	14

Table 1. Number of samples required to give a result accurate to a particular level of DM.
(Ref: Foundation for Arable Research, Arable Update No.32)

For technical information

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