

FEEDSTUFF SAMPLING

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

- **Sampling procedures** for feedstuff samples including tests available
- **Analysis Request Form** for you to tell us which tests you want done
- **Sample Bags and a Free Courier Bag**



Tests Available

Feed quality tests are carried out by NIRS, with statistically uncertain results denoted on the lab report. Wet Chemistry options are available upon request, at additional cost.

Pasture/Fodder Crops (fresh, non-fermented)

Profile Name	Tests Reported
Feed [Feed]	Dry Matter, Crude Protein, Acid Detergent Fibre (ADF), Neutral Detergent Fibre (NDF), Lignin, Crude Fat, Soluble Sugars, Starch, Ash, Digestibility (DOMD) and Metabolisable Energy (ME)
Mixed Pasture Profile [MPast]	Basic Plant Profile (Nitrogen, Phosphorus, Sulphur, Potassium, Calcium, Magnesium, Sodium, Iron, Zinc, Copper, Manganese, Boron), Molybdenum, Cobalt, Selenium, Chloride + Protein and ME (includes DCAD)
Extended Feed Profile [ExtFed]	Feed + Basic Plant Profile, Molybdenum, Cobalt, Selenium and Chloride (includes DCAD)
Additional tests	Nitrate-N, Iodine, DCAD

Silages (fermented)

Profile Name	Tests Reported
Silage Profile [Silage]	Dry Matter, Crude Protein, Soluble Sugars, Starch, Ash, Acid Detergent Fibre, Neutral Detergent Fibre, Lignin, Crude Fat, Digestibility (DOMD), Metabolisable Energy, pH and Ammonium N (as % Total N), Lactic Acid
Extended Silage profile [ExtSil]	Silage Profile plus minerals including Cl for DCAD
Silage +Volatile Fatty Acid Profile [SilageVFA]	Silage Profile PLUS Acetic, Butyric, Propionic and Formic Acids

Other tests

All forages/silages	Dry Matter, Crude Protein + Metabolisable Energy [DMME]
All feeds	Dry Matter only [DM]
Meals, pellets etc (excluding, PKE, Copra, molasses, liquids)	Compound Feed Profile [CpdFeed] (Dry Matter, CP, Ash, Soluble Sugars, Starch, ADF, NDF, Crude Fat, DOMD, ME) – all tests may not be available depending on sample matrix. NIRS & wet chem options. Please contact the laboratory.

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 send to the laboratory.



Silage & Baleage

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 send to the laboratory. Double-bag samples if the silage is very wet or if there will be a delay in sending. Chill samples overnight in the fridge if unable to send to the laboratory on the same day.

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.

[Refer also to Hill Labs Technical Note – Feed Dry Matter Testing]

- **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. Collect the sample for analysis by mixing the sub-samples on a clean plastic sheet and quartering and re-mixing until 1kg size. Place into a Feed bag and squeeze the air out. Seal the bag, complete analysis request form and send 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. 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 Feed bag, squeeze out air and seal. Complete the submission form and send 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.

Bulb Crops (Fodderbeet, Swede, Turnips)

Obtaining a representative sample of bulb crops is more difficult than for green forages. The fewer plants selected for sub-sampling, the more uncertainty of measurement will be associated with the test result.

Select 4-6 plants (being tops and bulbs) and remove excess soil. Ideally tops and bulbs should be analysed separately as it is very difficult to obtain a representative sample for both fractions combined. Separate tops and bulbs then sub-sample bulbs to achieve 500g -1kg by dividing first into quarters lengthwise, then halving quarters lengthwise and selecting a random quarter from each bulb to combine into one sample bag for testing. Alternatively, sampling bulbs with a coring device, ensuring angled longitudinal samples (including outer and inner portions) from several bulbs are taken, has been shown to be a rapid and effective method. Tops can be chopped roughly and placed into the sample bag for sub-sampling at the laboratory (or reduce down selecting representative fractions before sending if very large).

DO NOT FREEZE bulb crops before sending for analysis. Fodderbeet in particular breaks down upon freezing and cannot then be analysed.

Contact Details

For further information about any of the above tests please visit www.hill-labs.co.nz or phone the laboratory and ask to speak with one of our Agriculture Client Service Managers.