

Feed Sample Submission Form

Submitter Details

Name:	Company:
Address:	Mobile:
Town/City:	Phone:
State/Postcode:	ABN:
Email:	

Sample Source (if not the same as submitter)

Name:	Company
Address:	Town/City:
Email:	Property Identification Code (PIC)

Name to appear on Report (please tick): Submitter Sample Source

Accounts - Send to (please tick): Submitter Sample Source

Authorisation

By ticking this box, I have read and agree to the NSW DPI Laboratory Services Terms and Conditions.	
By signing below, I declare that I am authorised to request analysis of the samples listed on this form	
Name:	Number of Samples:
Signature:	Date:
Have you been given a quote? Yes No	Quote Number:
Internal Client Project Task:	

Report Requirements

Do you require one report for bulk samples?	Yes - all samples listed on one report is sufficient
	No - I require individual reports at extra expense
Will the report be used in legal proceedings?	Yes Additional information may be required
	No

Sample Details

Sample ID (As seen on Report)	Sample Type	Date of Sampling
1		
2		
3		

If additional samples please attach list

Send your sample(s) and this form to:

Customer Service Unit
NSW Department of Primary Industries
Locked Bag 701
Wagga Wagga NSW 2650

For further information including Terms & Conditions and current pricing
contact NSW DPI Feed Quality Service on:
1800 675 623 prompt 2 or (02) 6938 1957
wagga.csu@dpi.nsw.gov.au
or visit the website at:
www.dpi.nsw.gov.au/labs

Laboratory Use Only

Date Received:	Accession No:
Accessioned by:	Samples Checked:
Total Number of Samples:	Testing Authorised:

Analysis Required

Standard Package (NIR) (Pasture, Hay, Forage, Silage, Straw)	Dry Matter, Ash Content, Total N & Crude Protein, NDF, ADF, Dry Matter Digestibility, Metabolisable Energy, WSC	
Premium Silage Package (NIR)	Standard Package + Silage pH and Silage Ammonia-N	
Healthy Horse Package (NIR)	Standard Package + Fat and Calc of DE for horses	
Grain/Concentrate Package (NIR)	Standard Package + Total Fat/Ether Extract	
Total Mixed Ration	Special calibration for mixed feed rations	
Wet Chemistry Feed Package	Standard Package + Total Fat/Ether Extract + WSC	
Wet Chemistry Forage Package	Standard Package + WSC (Wet Chemistry)	
Wet Chemistry By-Products Package	Standard Package + Total Fat/Ether Extract	

Minerals ¹	Starch *	Bulk Density & Screenings*
Chloride ¹	Prussic Acid*	Gross Energy*
DCAD (incl Min & Chloride)	Mould Count*	Nitrate/Nitrite*
Urea	Full Mycotoxin scan ¹	Energy (please tick): Pig DE* Fish DE* Poultry AME*

Other (please check website for options)

* Denotes tests not covered under the Laboratories NATA Scope of Accreditation

1 Denotes tests where service is subcontracted to an external provider. Preference is given to other NATA accredited Labs, and/or Govt facilities

PLEASE ASSIST RESEARCH BY COMPLETING THIS SECTION

What is the source of your sample	Grown on Property	Bought elsewhere
What will you use the feed for	Beef Cattle Dairy Cattle Horse	Sheep Sale/Export Other (please specify)
Standard or Silage Package	Forage or Pasture Silage	Hay Straw
Maize	Pasture-legume dominant	Pasture-grass dominant
Cereal	Winter Forage Crop	Summer Forage Crop
Lucerne	Other	

Major Species 1 2

Stage of Growth:

Early vegetative	Late vegetative	Boot
Flowering	Dough stage	Seed development

Grain Concentrate Package

Oats	Wheat	Barley
Triticale	Faba Beans	Peas
Lupins	Maize	Sorghum

Total Mixed Ration (TMR) / ByProducts Package (Wet Chemistry)

Primary Ingredients: 1..... 2..... 3..... 4.....

Contains urea or other non-protein nitrogen (NPN) source: Yes

Test results and findings may be provided to authorised staff and used for statistical, surveillance, extension, certification and regulatory purposes in accordance with Departmental policies. The information assists disease and residue control programs and underpins market access for agricultural products. The source of information will remain confidential unless otherwise required by Law or regulatory policies.



COLLECTING FEED SAMPLES

The laboratory can only determine the quality of the sample according to the condition in which it is received. It is therefore very important how you collect, sub-sample and dispatch your sample to the laboratory.

- 1. Collect your bulk samples.** Collect your bulk sample early in the week so that it can be received and processed by the laboratory before the weekend. Ensure that the bulk sample represents the feed that you are testing (see below), and is free from contamination from soil and leaves and so on. For baled hay and silage we recommend that a sample corer be used to collect your sample. If a corer is not available take a 'grab' from deep within the bale or pit.
- 2. Thoroughly mix the bulk sample and sub-sample.** Use the mixing, coning and dividing technique shown on the back of this page to obtain the quantity of sample indicated on the sampling bag.
- 3. Complete the enclosed sample submission form.** This information tells the laboratory who owns the sample and what tests are required.
- 4. Package and dispatch.** Put the sample and the submission form into the Reply Paid post bag and send to the laboratory.

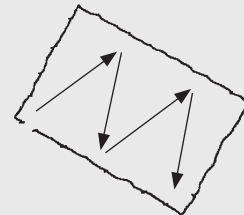
Samples with high moisture content (fresh pasture, fresh mown pasture and silage) must be frozen, in the plastic inner sample bag, before sending to the laboratory. Once frozen, the sample will remain stable during delivery. The sample inner bag should be well wrapped in dry newspaper, just prior to sending, to minimise defrosting. Send the sample to the laboratory in the green Reply Paid post outer bag provided.

Samples must not be allowed to heat during storage and transport prior to testing, as they will deteriorate. Never leave samples in vehicles, particularly on a hot day.

HOW TO COLLECT YOUR SAMPLE

PASTURE – FRESH AND FRESH MOWN

- Sample at random by taking between 15 and 20 'grab' samples across a paddock.
- Grab to grazing height or to the full depth of the swath or windrow.
- Combine all 'grabs' in a bucket and mix well.



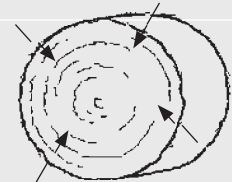
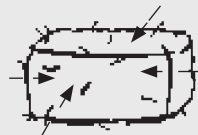
SMALL SQUARE BALES

- Select 10–20 bales at random. Take one core from each bale, through the 'butt' and at right angles to the surface.
- Combine cores in a bucket and mix well.



LARGE ROUND OR SQUARE BALES

- Select 5–10 bales at random. Take one core from each side of the bale, probing at right angles to the surface and at different heights.
- Combine cores in a bucket and mix well.



CUBES, PELLETS, MEALS AND GRAIN

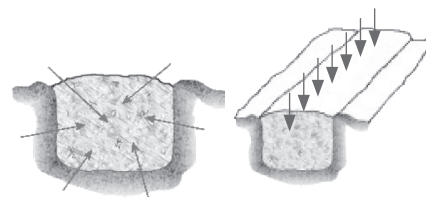
- Take 10–15 'grab' samples from the bulk supply or from individual bags.
- Combine all 'grabs' in a bucket and mix well.



COLLECTING FEED SAMPLES

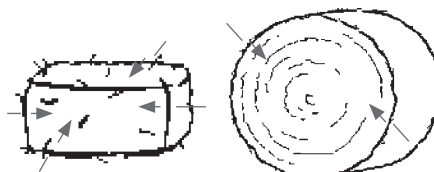
BUNKER OR PIT SILAGE

- Sample 10–15 sites across a freshly cut silage face or 7–10 random sites along the length of the pit. Avoid sampling from only the top 50 cm of the pit.
- Combine cores in a bucket and mix well.



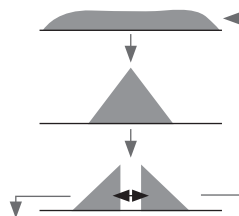
BALED SILAGE

- Select 10–15 bales at random. Take one core from each side of the bale, probing at right angles to the surface and at different heights.
- Combine cores in a bucket and mix well.



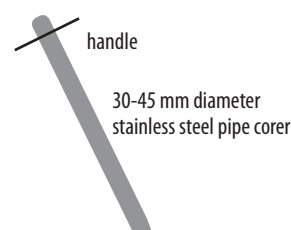
SUB-SAMPLING – CONING AND DIVIDING

- Mix the sample.
- Bulk the sample in the centre (coning).
- Divide it in half.
- Discard half and repeat until desired sample size is achieved.



SAMPLE CORERS

- Core sampling devices are commercially available or can be made on-farm. A common construction material is stainless steel dairy airline. More sophisticated corers have a removable cutting head, but home-made corers simply rely on scalloping one end of the tube and sharpening it with an angle grinder. It is important to keep the cutting surfaces sharp for efficient sampling.
- Corers can be manually operated or fitted with an attachment to allow operation with a power drill. In the former case a hole is drilled through one end of the pipe so that a lever/handle can be inserted. **When operating a corer either by hand or by a drill, ensure the corer does not get hot by rotating the corer slowly.** The core can be pushed out of the corer using a length of wooden dowel.



For more information on sample collection, please contact our free call number on 1800 675 623.

References

1. *Fodder Analyst's Laboratory Manual*. Australian Fodder Industry Association
2. *Successful Silage*. Top Fodder. Chapter 12. Authors: Alan Kaiser & John Piltz



INTERPRETING THE FEED ANALYSIS REPORT

Your feed analysis report will include results for some or all of the following tests. We recommend contacting your local adviser for further explanation and interpretation of the results.

DRY MATTER % (DM)

- 'Dry Matter' is everything remaining after all the water in the sample has been removed
- It is expressed as a percentage of the original sample. $DM\% = \text{dry matter} \div \text{sample weight} \times 100$
- DM contains the energy, protein, vitamins and minerals required by animals for maintenance and production.
- DM is the basis for a true comparison between feeds and feed components.

DRY MATTER DIGESTIBILITY % (DMD)

- DMD is the proportion of the dry matter in a feed that can be digested by an animal.
- It is expressed as a percentage of DM.

DRY ORGANIC MATTER DIGESTIBILITY % (DOMD)

- DOMD is the proportion of the organic matter in the dry matter that can be digested by an animal.
- It is expressed as a percentage of DM.

CRUDE PROTEIN % (CP)

- Crude protein = nitrogen (N) \times 6.25
- CP includes protein and non-protein nitrogen.
- It is expressed as a percentage of DM.

FIBRE

- Fibre is the structural part of plants and feeds.
- It consists mainly of compounds called hemicellulose, cellulose and lignin.
- It is expressed as a percentage of DM, either as acid detergent fibre (ADF) or neutral detergent fibre (NDF).

ACID DETERGENT FIBRE (ADF) is a measurement of cellulose and lignin.

NEUTRAL DETERGENT FIBRE (NDF) is a measurement of hemicellulose, cellulose and lignin.

METABOLISABLE ENERGY (ME)

- ME is the amount of energy in a feed that is available to an animal to utilise for maintenance, production and reproduction.
- It is expressed as megajoules of metabolisable energy per kilogram of dry matter (MJ ME/kg DM).
- It is calculated from the digestibility of the organic matter as a percentage of DM.

ASH CONTENT

- Ash content is the total inorganic matter (minerals) present in a feedstuff.
- It is expressed as a percentage of DM.

INTERPRETING THE FEED ANALYSIS REPORT

RISK OF POOR FERMENTATION IF pH EXCEEDS:

15	4.10	4.20
20	4.20	4.30
25	4.35	4.50
30	4.50	4.70
35	4.65	4.80

SILAGE AMMONIA-NITROGEN (%)	SILAGE FERMENTATION QUALITY
less than 5	excellent
5 to 10	good
10 to 15	moderate
greater than 15	poor