A GUIDE TO FEED SAMPLING

When sampling for feed test analysis, it is important that the samples collected are representative and stored correctly to ensure accurate results. This guide will cover the basics of sampling procedures across a range of feedstuffs.

1. COLLECTING SAMPLES

Different feeds require different sampling methods to ensure representative results. The recommended sampling techniques are as follows,

Pastures

Take grab samples down to grazing height. Several samples should be collected across the paddock, avoiding stock camps, troughs and fencelines.

Grains

Depending on the delivery and storage method of the grain, sampling methods will vary.

Grain in semi-loads may be sampled by using a slotted grain corer to collect a minimum of six samples to a depth of 3/4 of the load. Alternatively, handfuls can be collected during the unloading process.

Bagged grains, meals and pellets, at least 10 bags should be sampled at random. If a corer is being used, work in a diagonal pattern from the top left-hand corner to bottom right-hand corner of the bag.

Hays

Different bale sizes will require varied sampling methods to achieve a representative sample.

Small square bales, sample 10-20 bales at random using a probe, sampling from the ‘butt’ end of the bale.

Similarly, large square bales should be sampled from the ‘butt’ end, working on a right angle at different heights over 10 bales.

Round bales should be sampled from the curved surface through the middle of the bale. At least 10 samples should be taken.

Silages

Silage bales are to be sampled using the same method for round and square hay bales. Care should be taken to ensure holes are re-sealed to prevent deterioration.

Silage stored in pits of bunkers can be sampled with a corer or using ‘grab’ samples. A minimum of 10 cores should be taken, preferably sampling the pit prior to opening the pit or bunker with a long corer. Grab samples may be taken from the face of the pit from several heights.

2. WHEN TO SAMPLE

Depending on the test ordered, it can take up to three weeks to receive the results, so send your sample in advance of feeding out where possible.

Silage should be sampled after ensiling. If sampled prior to ensiling nutrient losses won’t be accounted for. Pit silage should be sampled monthly to track quality changes.

Pastures can be more challenging to sample due to a number of factors affecting the quality. It is advised that pastures are sampled in the middle of each season to create a profile of feed quality.

2. MIX IT UP

After you've collected your sample, mix it thoroughly to obtain a final sample weight of 500 grams.

Quatering is a useful method for obtaining this sample size. Please note that this method is not suitable for hay as there is a high risk of leaf loss.

Quartering can be undertaken as follows,

1. Mix your sample thoroughly
2. Pour it onto a clean surface and create a layer
3. Mark the sample into quarters
4. Take the two opposite quarters
5. Mix the quarters and repeat these steps until you achieve your desired sample of 500grams.

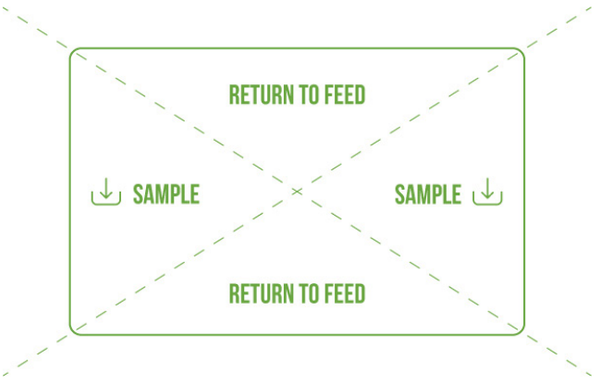

Figure 1 Illustration showing the quartering technique to achieve a representative sample.

3. PACK IT

The quicker you send your samples, the less deterioration that will occur

1. Place the feed in a sealed large zip lock bag ensuring all air is squeezed out before sealing. One bag is required for each feed sample.

2. Fill out the sample submission form provider by the laboratory. Ensuring correct labelling will be of benefit in the future when comparing against your feed test database.

3. The sample should arrive at the laboratory no later than 48 hours after sampling, therefore express postage is recommended.

4. Don't leave the sample in a hot place such as the cab of your ute, keep it in an insulated cooler or fridge to minimise deterioration.

5. Avoid posting towards the end of the week or over the weekend to avoid the sample sitting in the mail. Refrigerate the sample until you are ready to post it.

FEED TESTING COST

Feed testing can be undertaken by numerous labs across Australia. Prices will vary depending on the analysis the sample requires. A feed test covering basic feed values should cost between $60 to $170, depending on whether near-infrared spectroscopy (NIR) or wet chemistry analysis is used.

CONTACTS

Emma Egan
RMCG, Penguin, Tasmania
Phone: 0448 214 745
Email: emmae@rmcg.com.au

FURTHER INFORMATION

For further information, please visit **tasfarmingfutures.com.au** to view the following,

- Interpreting your Feed Test Guide
- Measuring Feed Value Fact Sheet

Other resources and tools include,
- Dairy Australia 'GrainstoMilk' Feed Report
- Alberta Agriculture's Sheepbytes and Cowbytes
- NSW DPI Feed Cost Calculator
- NSW DPI Drought Feed Calculator App