

Feed lab testing – getting a good sample



Feed lab testing should provide you with the key information you need to buy on value. Do you ensure the feed lab gets a sample that is truly representative of the feed you plan to buy?

Collecting a good feed sample

There's not much point using a feed lab analysis report to guide your feed buying decisions unless the feed sample collected for analysis was truly representative of the feed on offer.

The aim should always be to collect the most representative sample possible.

Here are some suggested methods you can follow with confidence:

Key tips

- Always be sure to collect a truly representative feed sample for testing.
- Label all feed samples clearly with a description and sample date.
- Ensure your feed samples arrive at the lab quickly, with minimal deterioration.

Table 1: Collect the most representative sample you possibly can!

Grains / concentrates and co-products	<p><i>Supplied in semi loads</i></p> <p>Collect several samples from at least 6 locations from the front to the rear. Use a slotted grain probe that is long enough to penetrate at least $\frac{3}{4}$ the depth of the load.</p>
Grains / concentrates and other feed ingredients	<p><i>Supplied in bags</i></p> <p>1-10 bags – sample all bags, collecting at least five probes. 11 or more bags – sample 10 bags at random.</p> <p>Stand each bag upright, insert the probe into the top corner and move diagonally through the bag to the bottom corner opposite the top corner and withdraw sample.</p>
Hays	<p><i>Small square hay bales</i></p> <p>Sample 10-20 bales, selected at random, using a probe or corer (grab samples are not good enough). Take one core from each bale, near the centre of the 'butt' end, at right angles to the surface. Ensure that the corer doesn't get too hot.</p> <p><i>Large round or square bales</i></p> <p>Sample 10 bales, selected at random, using a probe or corer (grab samples are not good enough). Take one core from the middle of the curved surface of each round bale taken through the middle of the bale. Take one core from each side of each square bale, at right angles to the surface and at different heights.</p> <p><i>Hay cubes or pellets</i></p> <p>Select a handful of cubes or pellets from at least 6 locations or bags.</p>
Silages	<p><i>Bunkers and pits</i></p> <p>Ideally, collect a sample before opening the bunker or pit, using a long coring device that extends deeply into the pit or bunker. Alternatively, take random handfuls from at least 10 locations across a freshly cut face of the bunker or pit (understanding that the silage face represents only a small proportion of the silage in the bunker or pit, so it may not provide a good representative sample).</p> <p><i>Wrapped bales</i></p> <p>Sample 10 large bales, selected at random, using a coring device as for large round hay bales. Take great care to immediately re-seal the holes made in the plastic by the corer.</p>

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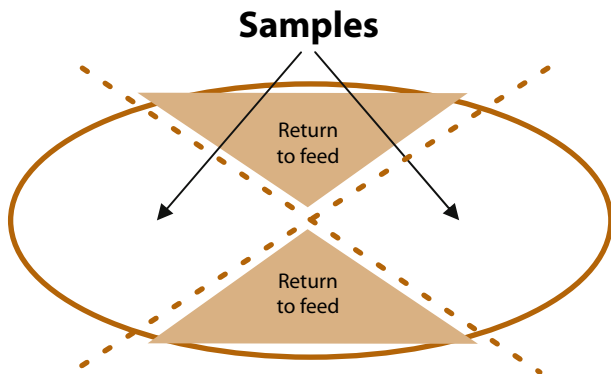


Preparing a sample for the lab

Combine sub-samples collected, mix thoroughly to obtain a final sample size no greater than 500 grams for submission to the feed lab.

Often you will have collected much more than 500 grams. Here is a simple method called 'quartering' you can use to get your 500 grams:

- Mix the entire sample thoroughly.
- Pour it onto a clean sheet of plastic or paper to form an even layer.
- Mark into quarters.
- Take two opposite quarters, mix and repeat until the two quarters selected give the desired sample size.



Note:

- Do not quarter hay samples to reduce sample size, as leaf loss can make the sample un-representative.
- Be sure to label all samples as you prepare them, marking them clearly with a description and date.
- Keeping a duplicate sample on-farm gives you the option of doing further testing later on if you wish.

Garry says: "My nutrition adviser told me that taking a few grabs out of one or two bales just isn't good enough. So I've got myself a hay corer now, which I attach to an electric drill. It makes sampling pretty easy, provided I make sure the battery is fully charged!"



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Getting your feed sample to the lab safe and sound

The aim is to get your sample to the laboratory as quickly as possible, with minimal deterioration.

- Immediately after sampling, place the final feed sample in a press-seal plastic bag, remove the air by squeezing the bag and seal.
- If feed material is stalky and there is a risk of puncturing the bag, double seal the sample inside a second press-seal plastic bag.
- Never leave the sample in a vehicle, especially on a hot day. It will deteriorate quickly if allowed to heat during storage and transport. Store in a cool place immediately, such as an insulated cooler.
- Unless you can get the sample to the laboratory within 24-48 hours, refrigerate or freeze it to ensure dry matter is measured accurately and aerobic spoilage is minimised (this is especially important for high moisture feeds during hot weather!). Follow the feed lab's guidelines.
- Avoid mail delays over the weekend by posting samples early in the week. Use an express courier service.
- Label samples accurately.

Take the time to fill in the feed lab's sample submission form properly. You and other farmers benefit in the long-term as labs use the information to refine their testing methods and databases of results for particular feeds.



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