

Are you overpaying for your hay and silage? Have you looked at more than the dry matter of the test results?

These are all questions to keep in mind when sourcing fodder. We cannot stress enough the importance of getting your hay and silage tested prior to committing to purchase. However, this year, it is even more important given the wet weather we have had over late spring affecting quality.

A feed analysis will give an accurate measure of the metabolizable energy (MJ ME/ kg DM), crude protein (% CP) and fibre content (% NDF). These values are all the more important than just knowing the Dry matter (DM) of the sample.

Metabolizable energy (MJ ME/ kg DM)

Metabolizable Energy (ME) is the net energy remaining after fecal and urinary energy loss is accounted for and represents the energy available for growth, reproduction and for supporting metabolic processes.

Crude Protein

Protein contains nitrogen which is used to estimate the protein content of feeds. It is typically measured as crude protein and expressed as a percentage of dry matter. It is called crude protein because it measures both the true protein (amino acids) and a portion of the nitrogen in feed that is non-protein nitrogen (such as nitrates, ammonia and urea).

Neutral detergent fibre

Neutral detergent fibre (NDF), is a measure of the total fibre (the digestible and indigestible parts) and indicates how bulky the feed is. It is again reported as a percentage of dry matter. One of the biggest challenges this year has been the high NDF of fodder samples given most of them have matured and were cut too late.

Higher NDF- >taking up more space in the rumen ->high fill factor- >longer to breakdown - >very little production benefits.



How can we work out the \$ tonne/ME/DM rather than simply comparing on cost? What feed is better on an energy basis?

Eg Take for example Lucerne hay

	Cost (according to Dairy Australia Hay report 2023)	Dry Matter	Energy
Feed 1	440	86.7	10
Feed 2	504	90	12.5

Calculating price on a DM basis $\$ \text{tonne of feed} \times 10 / \% \text{ DM} = \text{cents kgDM}$

Feed 1 $440 \times 10 / 86.7 = 51 \text{ cents kgDM}$

Feed 2 $504 \times 10 / 90 = 56 \text{ cents kgDM}$

Calculating the cost per MJ of energy $\text{Cents kgDM} / \text{MJ ME/kgDM} = \text{cents/MJ ME}$

Feed 1 $51 / 10 = 5.1 \text{ cents/MJ ME}$

Feed 2 $56 / 12.5 = 4.48 \text{ cents/MJ ME}$

Therefore, Feed 2 is better value per unit of energy, costing 4.48 ¢/MJ ME, compared to 5.1 ¢/MJ ME for Feed 1.

Other values that we need to draw our eye to on our feed analysis is maybe ADF protein, NDF digestibility (30hrs), silage acids, Ash, pH, % of volatile fatty acids, NFC and Relative Feed Value.

If you would like to understand your feed analyses further to make more informed decisions, please call to speak to one of our specialised nutritionists to organise an on-farm consult. 03 5866 2771



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