

Dry Matter vs As Fed

We nearly always pay for feeds based on an 'as fed' basis which includes the moisture. Moisture content varies considerably between feeds contributing to the as fed weight therefore it is important when comparing or purchasing feeds to convert values to a Dry Matter (DM) basis which is the feed remaining once the moisture has been taken out. However in some cases you may need to convert the values to an as fed basis.

Most grains are 90% DM 10% moisture.

Most hays are 85-90% DM 15-10% moisture.

Most silages are around 30-60% DM 70-40% moisture.

Exercise 1:

Convert values from a dry-matter basis to an as fed basis by multiplying the percentage of dry matter divided by 100. On a DM basis a citrus pulp sample contains 9% crude protein. The dry matter content is 25%.

The protein content on an as fed basis is:

$$9 \times (25/100) = 2.25\% \text{CP}$$

Exercise 2:

Convert values from an as fed basis to a DM basis, multiply by 100 and divide by the percentage of dry matter. A cereal silage sample contains 4.9% crude protein on a wet basis and contains 48% DM. The protein content on a DM basis is:

$$4.9 \times (100/48) = 10.2\% \text{CP}$$

Exercise 3:

I have purchased lupins at \$400 per tonne on an as fed basis at 90% DM and silage at \$220 per tonne at 40% DM what is the cost comparison per tonne on a DM basis?

$$\text{Cost of lupins per tonne DM basis} = \$400 \times (100/90) = \$444.40/\text{t DM}$$

$$\text{Cost of silage per tonne DM basis} = \$220 \times (100/40) = \$550/\text{t DM}$$



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