

Feed & Mineral Test Analysis

How to read your results.

Feed Analysis.

Dry Matter/Moisture Legume hay with soft leaf should be around 13% moisture. Too dry and the leaf shatters and is lost, too wet and the hay can go mouldy and heat up. Cereal and **Grass hays should be 8% to 12%.**

Crude Protein (CP) can vary widely from 1% to 3% for straw, **3% to 10% for grass hay**, 15% to 25% for legume hays and 23% to 29% for fresh pastures. Protein is an important factor in the overall Digestible Energy of a feed.

Acid Detergent Fibre (ADF) is the indigestible fraction of the hay including hard stalks and stems. It is important for function and fermentation in the hindgut. The higher the ADF, the lower the energy value of the feed.

Neutral Detergent Fibre (NDF) is the total amount of fibre including cell walls in leaves and stems. Some fibre is digestible in both the foregut and the hindgut. High NDF can limit the physical amount of fodder a horse can eat.

Digestibility (DMD) generally refers to ruminants but this figure can give an idea of the overall value of a feed. High digestibility means high feed efficiency and energy absorbed per kilo of fodder.

Digestibility (DOMD) is the digestibility of the organic matter and has the ash content taken out.

Metabolisable Energy (ME) is a calculation of the calorific value of the feed, it is like the Calories on the back of the cereal box. It is an indication of the energy value of the feed and the animal performance that can be expected from it.

Water Soluble Carbohydrates (WSC) is the sweetness of the hay and the sugar load which can be critical to IR or laminitic horses.

Non Structural Carbohydrates (NSC) is the sum of WSC and Starch or Fructans. Starch is generally low in hays, in the order of up to 3% so the WSC is the greater bulk of the sugar load in a hay. Oaten hays can be very high ranging from 18% up to 35% WSC, **Grass hays harvested for peak sweetness are generally 15% to 20%**, native grasses are up to 12%.

Ethanol Soluble Carbohydrates (ESC) are a sub-set of WSC and measure the short chain and small molecule sugars which are rapidly digested.

Starch Starch is generally low in hays but can be important in overall digestive function. Starch carryover into the hindgut can contribute to problems.

Sugar The sugar measurement is part of the Starch analysis and consists of simple sugars only. The difference between WSC and Sugars is likely to be predominantly Fructans.

Horse DE Horse Digestible Energy (MJ/kg) indicates the energy density of the feed. This is critical to ensure that the horse gets enough nutrition from the volume of hay it eats.