

HAY TESTING DEFINITIONS

Dry Matter (DM) - Feed free of moisture or 100% DM. Feeds are expressed on a DM basis due to the large variation in moisture or DM content of feeds fed to cattle.

Crude Protein (CP) - Total protein equivalent including nitrogen from both protein and non-protein sources.

Unavailable Protein (Heat Damage) - Bound protein in the fiber of feed material. Normally about 1% protein (on a DM basis) is found. Values >1% indicate heat damage.

Adjusted Crude Protein - The amount of protein available to the animal. It is an adjustment to crude protein by unavailable protein.

Digestible Protein Estimate - An estimate of the amount of protein digested and absorbed by the animal.

Acid Detergent Fiber (ADF) - The percentage of highly indigestible plant material in a feed or forage. The lower the ADF the more digestible a feed is to the animal.

Neutral Detergent Fiber (NDF) - The percentage of cell wall material or plant structure in a feed. The lower the NDF percentage, the more an animal will eat. NDF includes acid detergent fiber and is inversely related to intake, therefore, a low percentage of NDF is desirable.

Lignin - A biologically unavailable mixture of polymers of phenolic acid. Lignin is a major structural component of mature plants and trees.

Total Digestible Nutrients (TDN) - The sum of the digestible protein, digestible nitrogen free extract, digestible crude fiber and the digestible fat. TDN accounts for the fecal loss of digestion and to a large extent the urinary energy loss.

Net Energy of Lactation (NEL) - An estimate of the energy in feed available for body maintenance and milk secretion.

Net Energy for Gain (NEG) - An estimate of the energy of feed available for the deposition of body tissue in non-lactating animals (the term "non-lactating animals" refers to growing males and females, and mature bulls).

Net Energy for Maintenance (NEM) - An estimate of the energy of feed available for the maintenance of non-lactating animals (See NEG for term non-lactating animals).

Digestible Dry Matter (DDM) - An estimate of the percentage of the feed or forage that is digestible, Based on feeding trials with animals and is determined from ADF concentration and can be used as an estimate of energy value in ration balancing.

Dry Matter Intake (DMI) - Is an estimate of the relative amount of forage an animal will eat with only forage fed. DMI is based on feeding trials and NDF concentration.

Relative Feed Value (RFV) - A measure of feed value compared to full bloom pure alfalfa where 100 is equal to full bloom alfalfa. An RFV above 100 is better quality forage than an RFV below 100.

Macro Minerals - Minerals required in greater quantities and are present in animal tissue at higher levels. These include phosphorus, calcium, potassium, magnesium, sulfur, sodium and chlorine.

Trace Minerals - Minerals required in smaller amounts and are generally present in animal tissue at lower levels. These include copper, iron, manganese and zinc.