

Fresh Grass Analysis for Precut Testing

Fresh Grass Testing

Parameter	Comments
Dry Matter	This shows how much of the fresh crop is not water. A grass with a low dry matter will require more acid to produce a stable silage. Low dry matter grass will also result in more effluent. It is not possible to tell from the analysis if the water present
Crude Protein	This is a measure of the total amount of nitrogen present in the grass multiplied by 6.25. When used in conjunction with the fibre and potassium values it can be used to predict the quality of the protein and also the extent to which there is unused fertiliser nitrogen present.
NDF (Neutral Detergent Fibre)	This is a measure of the total cell wall content, including cellulose, hemicellulose and lignin. This gives a very good guide to the maturity and hence further growth potential of the grass.
Buffer Index	This gives a measure of the amount of free nitrogen present. High levels would normally indicate a higher risk to fermentation. It is important to appreciate that levels vary during the day, with highest levels in the morning.
Nitrate - N	This is a measure of the nitrogen in the crop. Excessive nitrogen will increase nitrate and reduce sugar levels and may have a negative effect on fermentation and intakes. Fermentation is badly affected at nitrogen levels above 0.25%. Below 0.10% is ideal.
“D” Value	A high inverse correlation with fibre levels. Indicates both nutrient value and growth potential of the crop.
ME (Metabolisable energy)	As with “D” value high inverse correlation with fibre levels. Indicates both nutrient value and growth potential of the crop.
Sugars	Sugars are used by bacteria to produce crucial fermentation acids. High sugar levels increase the likelihood of a good fermentation. Levels can vary during the day with highest levels usually occurring in the afternoon.

Range and target values

Parameter	Range	Target	Parameter	Range	Target
Dry Matter (%)	15 - 45	22	Nitrate - N (%)	0 - 30	0
Crude Protein (%)	5 - 36	18	“D” Value	65 - 70	70
NDF (%)	40 - 75	50	ME (MJ/Kg DM)	9.5 - 11.5	10.5
Buffer Index (meq/kg)	400—450	< 450	Sugars (%)	0 - 30	> 10