



Fresh Grass Analysis for precut testing



Fresh Grass Testing

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 is within the structure of the grass or is surface water, like rain or dew.
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	The higher this value, the more difficult it will be to achieve a pH drop sufficient to produce a stable silage. Several factors act together to produce this buffering effect and this can be the most important factor in achieving a good fermentation.
NITRATE-N	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.
"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	This is the substance used by the bacteria to produce fermentation acids. The higher the value the more likely to be a good fermentation. Levels vary during the day with highest levels in the afternoon.

Range and target values for each of the parameters

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 (%)	25 - 60	<40	Sugars (%)	0 - 30	>10



Wellington Road, The Airfield,
Pocklington, York. YO42 1DN
Tel: 01759 305116
Fax: 01759 306955
Email: laboratory@phosyn.com
www.yaraphosyn.com

