

Visual Assessment of Silage

How to take the silage sample

Core the silage pit at 2-4 points diagonally across the pit

Discard the first sample at each point

Be careful that all the moisture is not squeezed out of the sample, resulting in a higher DM.

Silage DM content for silage with DM <30% can be estimated by squeezing a handful of silage

Amount of 'squeezing	Dry matter %
Juice easily expressed by hand	Less than 20%
Juice expressed with difficulty	20- 25%
Little or no juice expressed but hands moist	25 - 30%

Dry matter in drier chopped silages may be estimated by taking a handful of silage and compressing it tightly for half minute before suddenly releasing hand pressure and noting the effect on the silage "ball"

Ball Shape Dry Matter %	Dry matter %
Ball retains its shape and some free juice is expressed	Less than 25%
Ball retains its shape but no free juice is expressed	25 - 30%
Ball slowly falls apart	30- 40%
Ball rapidly falls apart	Greater than 40%

Preservation

Fermentation	Colour	Smell	Comment
Good	Bright, light green	Fruity/vinegary	
Poor	Very dark olive grass		High PH
Refusal of silage suggests poor preservation			

pH using litmus paper

Where to take the sample? - Don't take it at the top of the pit -take it in the middle of the pit

DM	Acceptable pH	DM	Acceptable pH
18 - 20%	3.8 - 4.2	24 - 28%	4.4 -4.6
20 – 24%	4.2 – 4.4	28%+	Up to 4.7V
Animals throwing up cud suggests a low pH			

Feeding value

Dry matter digestibility (DMD)

- Does it come out in layers? Suggest that it's well compacted which is good for preservation and also likely to have a lot of leaf in it.
- Roll it up in a ball in your hand -does it roll up well and is soft in your hand rather than a lot of stem pricking your hands
- Visual look at the % of leaf compared to stem -if there is stem, is it dead material or hard stem or soft stem
- Are the grasses mostly perennial ryegrass? Or is there a significant proportion of weed grasses?

Leaf and Stem Content

DMD %

Very leafy – no stem visible	76%+
Leafy – some stem visible	72 – 75%
Leafy with some flowering stems	68 – 71%
Moderately leafy with large numbers of flowering stems emerging	64 - 67%
Stemmy –grasses at about flower stage	60 -63%
Stemmy – grasses post flowering stage	< 60%
Every week delay causes a 3 point drop in DMD i.e. quality. This equates to an extra 1kg of meal to maintain daily live weight gain.	