

Making best silage: Making silage. What to do in the wet.



Many farmers and agricultural contractors have become expert in producing high quality baled silage in good summer weather conditions. However in recent years some erratic weather patterns in some regions have provided some farmers with the challenge of baling in wet weather.

Dr. Dave Davies, a highly published Senior Research Scientist and an expert in silage and rumen nutrition, offers the following advice on wet weather silage making.



**Think dry matter content.
Think soil contamination.**

“Advances in balewrapping techniques and balewrapping technology have dramatically increased the ease with which good quality baled silage can be created in dry conditions,” Dr. Dave Davies explains. “But for most of us, producing good quality silage in the wet is a new and mainly unwelcome challenge.

“Whilst the advice from institutions like IBERS’ is to avoid this wherever possible there may be times when its need becomes an absolute necessity.

In these instances, there are certain steps the farmer or agricultural contractor can take to increase their chances of success. Aside from all the usual considerations, they especially need to be aware of two issues which can be even more pronounced.”

“Firstly, it will be difficult to achieve a sufficient dry matter content in the cut crop because it won’t be as easy to wilt. This dry matter content is crucial and has a large effect on the intake of the resultant silage and therefore on the level of nutrients which are available to your animals.

“And secondly” Dave continues, “there’s an increased risk of soil contamination due to the wet ground and the naturally sticky nature of mud. This contamination needs to be avoided as it can bring with it all manner of undesirable bugs such as Enterobacteria and Clostridia which encourage a poor fermentation with high concentrations of ammonia and butyric acid. Even worse, it can also bring Listeria and Bacilli, which are pathogenic to livestock and can lead to abortions, eye infections and meningitis.

“So just how should farmers and contractors adapt their silage making to overcome these issues? Well that’s perhaps easier to understand if we consider each issue individually.”

What’s what with wilting

“To make wilting as effective as possible and in turn ensure the best achievable dry matter content, it’s important to spread the sward as widely as you can” says Dave Davies.

“There is a common misconception that leaving a thick sward under wet conditions will aid the wilting process but in reality, the exact opposite is true. All it does is lock in the moisture and create a warm, damp environment that’s ideal for unwanted bacteria to breed. It’s a bit like a giant compost heap.

“Scientific studies on the other hand have shown that even under wet conditions, spreading the sward will encourage wilting. In one experiment for instance, grass was cut under wet conditions at 9.30am and left in a thick sward with no spreading and also as a sward that was spread widely.

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“The dry matter content of both swards was then assessed at 5.30pm. The thick sward gave a reading of 21% whilst the sward spread immediately after cutting benefited from 23%. It might seem like a small gain but when it comes to producing silage in the wet, any opportunity for improvement is worth pursuing.

“As well as spreading the sward” Dave continues, “farmers should also resist any temptation to extend the wilt in an attempt to compensate for the wet weather. IBERS always recommends a wilt of no more than a day and that’s a recommendation that’s again based on scientific fact.

“Any longer and studies have shown that the crop actually starts to lose some of its dry matter content – something which applies no matter what the weather. Plus, extended wilts also make the silage more prone to cases of mould growth.”

A short cut for success

“As for soil contamination” Dave Davies explains, “the extent to which this will be an issue will vary greatly depending on individual fields and on their ground conditions”.

“If a field is a long term lay for example, then soil contamination is less likely to be a problem. Similarly, farmers can expect fewer problems when the soil is free draining. But if a field happens to be low lying or water logged, then a particularly fastidious approach is required.

“In such situations, it’s always advisable to mow the crop leaving a longer stubble than usual. Instead of cutting at two inches, cut at three or four inches. This helps to reduce the risk of soil contamination during both mowing and raking.”

Storage. More than an afterthought

“Having taken steps to improve the wilting of the sward and to reduce the risk of soil contamination, farmers still need to think hard about one other crucial factor when making silage in the wet” says Dave Davies. “The bales’ subsequent storage.”

“Silage bales made using a wet crop can be more prone to leaking effluent during storage and so it’s especially important for farmers and contractors to ensure they are wrapped using at least 6 layers of film rather than 4 layers. This is especially important in those regions where farmers have traditionally applied only 4 layers of balewrap. IBERS always recommends this as standard practice anyway because the additional layers of film have been shown to improve fermentation, to reduce mould growth and to help retain more of the silage as feedable dry matter. In addition, this increased risk of effluent leakage, also means there is a very real need to store the silage bales away from water courses.

“Another thing to bear in mind is the fact that the extra moisture will make the bales heavier. As such, bales made from a wetter crop should never be stacked in rows more than two high. If they are, the extra weight can squash the bales on the bottom layer and cause them to ‘blow’ the air tight seal formed by the balewrapping film.

“At the end of the day, producing well fermented, nutritious silage in the wet isn’t impossible’ Dave Davies surmises.

“It’s a lot like other less than perfect situations in life. A case of controlling the negatives – and maximising the positives.”



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