



SILAGE DECISIONS FACTSHEET



WILTING

Wilting grass in the field reduces the moisture content of a crop, saving the amount of water carried from the field and reducing effluent produced (which is a highly pollutant liquid). Fresh grass can be less than 20% dry matter and when allowed to dry to 30% dry matter silage effluent is almost eliminated.

A high dry matter silage is also seen as desirable for livestock and dry matter explains most of the variation in silage intake. When stock eat a crop not wilted and picked up two hours after mowing intakes will be 15-20% lower than a silage wilted for 24 hours. This is a result of poor fermentation and stock needing to eat more bulk of an unwilted silage to achieve the same dry matter intake.

There is a small loss in crop digestibility during wilting, but this is balanced by reduced effluent loss from the clamp during storage, so wilting should not affect the net nutrient losses during silage making.

However, when dry matter is very high (e.g. more than 30% when clamped or 35% when baled), with risks increasing as dry matter increases, it can cause concern because it can be difficult to compact in the clamp or bale and it can grow moulds or yeasts which are toxic. *Listeria*, which originates from the soil and can grow in a clamp or bale in the right conditions is a particular concern in silage for sheep.

Successful wilting also depends on suitable weather and rain, which delays pick up or results in a wet crop being picked up, can reduce silage quality and increase losses in the field. Sun and wind can more than double the rate of wilting compared with that achieved on an overcast day.

Spreading out and turning cut grass will lead to more rapid wilting, but there is a cost to these operations and subsequently rowing up grass before it is picked up. Mower-conditioners are designed to increase the speed of wilting and this could make it wilt up to 20% faster than unconditioned grass.

When grass starts to become too dry, rowing it up can slow down wilting. When it is going into the clamp too dry, consider putting a layer of freshly cut grass on top making it easier to consolidate and lower in overall dry matter. Both these tactics may be useful when dealing with hot and windy weather or to cope with a breakdown.

When using an additive, consider the dry matter of the intended crop when choosing the additive type and product (see the Silage Additives factsheet in this series).

Further information: Factors influencing the response in silage intake and animal performance after wilting of grass before ensiling: a review, published in the BGS Journal, Grass and Forage Science, 55, 1-13 (2000).

New developments in the prediction of intake of silage based diets, published in the proceedings of the XIII International Silage Conference (2002).

Department of Agriculture and Rural Development, Northern Ireland booklet, Rapid Wilt Silage www.ruralni.gov.uk/index/publications/information_booklets/rapid_wilt_silage.htm

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Please note: Any changes to management should be researched thoroughly and tried cautiously, bearing in mind any restrictions in force. BGS and EBLEX cannot be held liable for any losses.