



## Coming into spring: Silage Quantity or Quality?

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After extended dry periods, below average spring growth or drought, farmers need to restock their silage storages and hay sheds the first “good” spring after the long dry spell. However, farmers will now be faced with another quandary. Do I make a bulk amount of silage of poorer quality or less silage of higher quality and/or do I buy in hay? There are no right/wrong answers to these questions but there are some considerations to think about.

Many farmers will chase high yielding crops to rebuild silage (and hay) reserves, as has always been the case following a long dry period or drought. This is fine if you are looking to stick away silage of medium to low nutritive value. This silage will test about or under 9.5 mega joules of metabolisable energy per kilogram dry matter (MJ ME/kg DM or ME), under 10 – 12 per cent crude protein (% CP) and over about 55 per cent neutral detergent fibre (% NDF).

Silage of the nutritive value has a limited role due to its lower feed value. It can only be fed in relatively small amounts without affecting milk production, so other higher quality feeds need to make up the bulk of the diet if milk production and cow condition are to be looked after. It is suitable for late lactation lower producing cows and for the dries.

Some farmers, having made lower yielding silage, have been surprised at how well the cows have milked, and silage of high quality will lift production if enough is fed. This is not surprising because this silage is at or near grazing height pasture and can test over 10.5 ME, over 16% CP, and below 50% NDF. The earlier the pasture is cut, the more leaf and less reproductive tillers it will have compared to heavier cuts usually shut up for much longer or pushed too far with nitrogen.

FEEDTEST has analysed silages in recent years as low as 7 ME, 4.5% CP and as high as 77% NDF, not good enough to maintain even dry cows without a supplement to lift its quality! Alternatively, in good silage making conditions, pasture silages can be attained with over 11.0 ME, over 20% CP and about 35% NDF. So, where does your silage normally sit? Can you do better? Why?

Let’s look at the other equally important factors when deciding to go bulk or quality. Look at the paddocks after the heavy crops come off. They will be yellow, have a lot of bare ground between ryegrass plants and take a long time to regrow. This is because a major guideline for maintaining a dense high quality pasture has been broken. The pasture has grown well past three green living leaves and sunlight has not reached the base of the sward. Result: new leaves cannot reach sunlight, no new tillers generated, existing daughter tillers weakened or died off, aerial tillering meaning tillers hung out to dry, all leading to the yellow pasture picture described above that will take several rotations to thicken up again.

Pasture harvested at or just before canopy closure will be about half the yield but will be as high a quality as possible from ryegrass and may have just over two or just under three green leaves, depending on cultivar, nitrogen use and moisture. Contractors hate harvesting these lower yields for obvious reasons but you are paying the money for a high quality product. However, to be fair, they are equally entitled to charge slightly more due to the costs involved to cover the ground with mowers, tedders, rakes, etc. and farmers should still be ahead harvest cost-wise versus income from this silage.

It is possible still to put away the same total tonnes of silage as achieved by heavy yielding paddocks. This is achievable through cutting twice the area at four weeks compared to half the area at eight weeks. This maintains grazing pressure which maintains pasture quality, results in higher quality silage and actually usually results in more total spring growth. A “win”, “win”, “win” situation.

Look at these short lockup paddocks once silage is removed. They should look a similar colour, or only slightly a lighter green colour, to a timely and well grazed paddock. Regrowth will be dense, quick and more area available since most clumps will come back as high quality and most clumps will be grazed next rotation.

Need more encouragement? Table 1 shows the impact of quality and losses (fermentation, storage and feeding out) on silage for milk production. Let’s say we harvest 350 t DM of heavy cuts of silage and now compare that to lighter yields with a similar total amount of silage being made. Let’s work on 8 ME to produce one litre of milk (ME/L) and milk price is \$0.40/litre. The 8 ME is well above 5.5 ME/L often used but this allows for some cow condition gain, walking, substitution, etc. so a conservative value.

**Table 1. Impact of improvements in silage quality and reduced losses on additional value of milk produced**

Losses (%)		Silage Quality (ME/kg DM)			
		9.5	10	10.5	11
	25	0	\$6,560	\$13,125	\$19,690
	10	\$24,940	\$32,800	\$40,680	\$48,560

Based on the figures provided, if a target quality of 11 MJ/kg DM and losses of 10% are achieved there is an increase in milk income of \$48,560 compared to producing forage of 9.5 ME/kg DM with 25% losses.

Think about these figures. How much extra effort is required to improve quality? Earlier cutting, faster wilt by using a tedder or conditioner and harvest within 24 – 48 hours of cutting, albeit at lower yields. Much of the losses can be saved purely by sealing the stack airtight, not just covering it, as mostly happens, and repairing holes in the plastic when first noticed.



**Figure 1. High quality pasture for silage**



**Figure 2. Pastures past canopy closure**