



SilageKing

Trial Sheet

Feed more cows per bale with SilageKing

Trials reveal how BioStart SilageKing improves both the preservation and quality of baled grass silage.

How it Works

- SilageKing has two activities that ensure premium silage:
1. It activates the beneficial lactic acid and acetic bacteria, that occur naturally on the forage prior to chopping and baling. These bacteria produce the lactic acid and acetic acid that are responsible for the ensiling process.
 2. It inhibits the growth of the naturally occurring spoilage microbes that are present on forage in the paddock. Independent laboratory studies show that SilageKing inhibits the growth of both yeasts, which heat silage pit faces, and spoilage fungi, some of which produce mycotoxins that impair animal weight gain and fertility, typically found in silage.

SilageKing Trials

In two Northland trials with high- and low-quality pasture, SilageKing was applied at 150 mL/T to pasture silage that was then ensiled in small bags, with untreated pasture being used as a control. A sample of the forage at baling was collected and sent for nutritional analysis to establish a base line nutritive value. After 30 days samples of the SilageKing treated and untreated silage were sent for nutritional analysis.

SilageKing Improves Forage Quality

Through activating ensiling bacteria and by reducing the activity of spoilage microbes (which use up the sugars), SilageKing ensures that these sugars are now retained in the silage and are available to the animal instead. Reducing the amount of sugars used up improves the metabolizable energy (ME) and dry matter retained in the silage made from either low or high ME forages (Table 1). In an added benefit, digestibility of the SilageKing treated silage was also higher, meaning that more nutrients are available to the animal (Table 1).

SilageKing Improves Nutritional Value

Nutritional analysis of the silage showed that for the high ME pasture, SilageKing treatment increased the ME per wet tonne of silage by 7.5 % over the non-treated silage (4,158 versus 4,477 MJ ME/T DM; Table 1), and feeds 5.4 more cows per wet tonne. For the low ME forage, the ME per wet tonne was increased by 3.6 % (from 2,870 and 2,974; MJ ME/T DM; Table 1) and would feed 1.7 more cows per wet tonne.

Conclusion

These results show that silage treated with SilageKing reduces losses in metabolic energy and maintains digestibility allowing farmers to feed more cows per tonne of silage.

Measurement	Low ME Forage			High ME Forage		
	Forage	Untreated	SilageKing	Forage	Untreated	SilageKing
Dry Matter (%)	31.3	31.2	31.3	40.6	37.8	40.7
Metabolisable Energy (MJ ME/kg DM)	9.8	9.2	9.5	11.3	11	11
OM Digestibility <i>in vivo</i> (% DM)	68.5	63.4	65.4	75.7	73.8	74.2
MJ ME/wet tonne		2,870	2,974		4,158	4,477
Number of cows fed/d/wet tonne		48.7	50.4		70.5	75.9