

Sila-Bac[®] inoculant delivers improved animal performance and aerobic stability

Results from AAFC barley silage feeding trial confirm grower benefits of 11GFT

In 2009 and 2010, a feeding trial was conducted at the Lethbridge Research Center, Agriculture and Agri-Food Canada (AAFC), Lethbridge, Alberta. This study was conducted to evaluate the effects that treating barley silage with Sila-Bac[®] brand 11GFT had on animal performance and aerobic stability.

STUDY METHOD

- Whole plant barley was harvested in July 2009.
- Two Ag-Bag[®] silos were packed to a similar density, one treated with 11GFT and the other untreated for the feeding study.
- Samples were ensiled in parallel and evaluated for fermentation characteristics and aerobic stability.
- Twenty pens per treatment were utilized in the feeding trial.
- Diet consisted of 87% barley silage (as fed basis), 10% barley grain and 3% beef supplement for a period of 112 days.

FINDINGS

Findings indicate 11GFT offered improvements in several areas:

Improved silage fermentation characteristics

- Treated silage demonstrated higher concentration of acetic acid and lower acetic:lactic ratio.

Improved aerobic stability

- Treated silage was stable for 21 days compared to 6 days for the untreated – an improvement of 15 days.

Improved feed efficiency

- Steers consuming 11GFT-treated barley silage gained more weight per kg of ration.
- When compared versus check, 11GFT offered a **feed efficiency improvement of 8.9%**.

“In addition to improving ensiling and aerobic stability of silages, growing steers fed a diet containing 11GFT-treated silage had **superior feed utilization efficiency**. This indicates that this specific third-generation silage inoculant may have the capacity to reduce feed costs in feedlot operations.”

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Item ¹	Control	11GFT	
Silage dry matter, %	31.5	31.5	
pH	3.99 ^a	4.43 ^b	
Lactic acid ² , %	7.40 ^b	3.85 ^a	
Acetic acid ² , %	1.73 ^a	4.24 ^b	
Acetic:Lactic ratio	4.29	0.91	
Butyric acid ² , %	0.56	0.00	Advantage
Aerobic stability ³ , days	6	21	+15 days
Number of pens	20	20	
Animal start wt, kg	242.7	242.2	Advantage
Dry matter intake, kg/d	7.62 ^b	7.14 ^a	-0.48 kg
Gain, kg/d	1.29	1.31	
Feed conversion (Gain/DMI)	0.169 ^a	0.184 ^b	-0.015 units

¹ Values expressed as least squares means.

² Expressed on a DM basis.

³ Time in days for silage temperature to rise above ambient.

^{a,b} Treatment means within a row with different superscripts differ (P ≤ .05).