

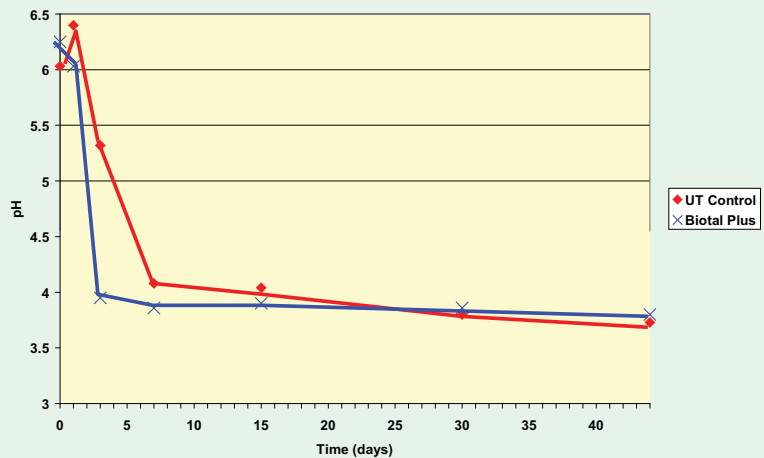
# Trial Summary: Biotol Plus; Barley Silage; Lethbridge

# B I O T O L P L U S

<b>Site</b>	Lethbridge Research Center, Lethbridge, AB
<b>Lead Researchers</b>	Dr. John Baah
<b>Objective</b>	To demonstrate the efficacy of Biotol Plus in barley silage and evaluate dry matter recovery benefits.
<b>Protocol</b>	Barley silage was harvested at c.40% dry matter and treated with either Biotol Plus or an equivalent amount of water (control). Material was ensiled in mini-silos. Speed of pH decrease was measured during the initial ensiling. Dry matter recovery was measured at the end of the storage period.

## Results

1. pH of Barley Silage in Mini-Silos



DM losses in the Biotol Plus treated silage were 42% less than those in the untreated material.



## Trial Summary: Biotol Plus; Barley Silage; Lethbridge ...continued

### 2. Dry Matter level at Harvest and typical DM losses for different storage structures

Source of Dry Matter Loss	Horizontal trench or stack (35% DM)	Horizontal bunker (35% DM)	Concrete tower (35% DM)	Oxygen-limiting tower (55% DM)	Bag (35% DM)	Round Bale (35% dm)
(----- % of the standing crop DM in the field -----)						
Respiration and weathering	4	4	4	6	4	4
Harvesting	2	2	2	3	2	4
<b>Storage</b>	<b>15</b>	<b>12 (10-15)</b>	<b>9 (8-9)</b>	<b>5</b>	<b>7 (5-9)</b>	<b>18 (10-25)</b>
<b>42% of above</b>	<b>6.3</b>	<b>4.2 – 6.3</b>	<b>3.8</b>	<b>2.1</b>	<b>2.1 - 3.8</b>	<b>4.2 – 10.5</b>
Feedout	4	4	2	2	4	4
Total	25%	22%	17%	16%	17%	30%

Valuing silage at \$125 per ton DM

2.1% is 21 tons per 1000, value = \$2,625 per 1000 tons ensiled

6.3% is 63 tons per 1000, value = \$2,875 per 1000 tons ensiled

### **Conclusions**

Biotol Plus produced a faster fermentation, with significantly better dry matter recovery compared to the control.