Grey Wooded Forage Association
"Creating an Awareness of Forages"
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Evaluation of Round Bale Silage

Project #: 1997-A

Cooperator: Harry Tensen, Rocky Mountain House

Sponsor: Grey Wooded Forage Association

Objective:
Evaluate the use of Round Bale Silage as a harvesting option in the Grey Wooded area. We will evaluate feed quality from field to feeding; also, look at Dry Matter Loss (DML) from field to feeding. Also, evaluate the economics of putting that silage in a bag versus chopping and putting it in a pit. Does this give producers and advantage over trying to put up good quality hay- weather options.

Background:
Harry approached GWFA to see if we would be interested in do a small trial involving a Tube-line Bale Wrapper. We sampled bales as they were put into the Wrapper. Then as Harry fed the bales throughout the winter, samples were taken from each bale mixed and submitted to Norwest for testing.

These are the results of that informal test:

	Moisture	CP %	DE (Mcal/kg)	TDN %	ADF %	pH
July	41.8	9.9	2.76	62.6	33.7	5.8
December	42.4	9.5	2.73	62.1	34.4	4.7

Method:

We will randomly select and tag (for future identification) bales out of the field and take them to be weighted. Then they will be cored several times to provide enough sample for a feed analysis on each bale. Then the bales will be wrapped by the bale wrapper. Then when it is time to feed the individual bales they will again be weighed and sampled. These results will be used to assess the dry matter loss of this harvest system. Also, the cooperator will record the costs of this harvest system and compare that to more conventional systems for our area.

Results:

July	Bale Weight (kg)	Bale Weight (lbs.)	% Moisture	% DM	CP %	ADF %	TDN%	DE (Mcal/kg)
Bale 1	770	**1697**	60.0	40.0	9.4	34.3	62.2	2.74
Bale 2	840	**1851**	59.5	40.5	11.5	33.5	62.8	2.76
Bale 3	740	**1631**	56.1	43.9	9.5	35.1	61.6	2.71
Bale 4	780	**1719**	60.6	39.4	9.3	37.9	59.4	2.61
Bale 5	570	**1256**	48.0	52.0	7.4	34.8	61.8	2.72
Bale 6	670	**1477**	47.8	52.2	7.5	34.5	62.0	2.73

Winter (January, February and March)									pH
Bale 1									
Bale 2									
Bale 3									
Bale 4	N/A	**N/A**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bale 5	570	**1257**	43.0	57.0	9.2	36.9	60.2	2.65	5.8
Bale 6	685	**1510**	40.5	59.5	8.6	31.5	64.4	2.83	5.1

Discussion:

The bales were put up with New Holland 664 baler. Bales 5 and 6 had some rain on them as they were being wrapped (approximately 1/2 inch). But as you can see by the feed tests the bales did not deteroiate due to that moisture. Bales 1, 2 and 3 at the time of this report have not been feed tested (not fed to the cattle).

Advisors: Grant Lastiwka, Western Forage Beef Group
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Future Plans:
To see if this harvesting system allows producers to put up quality feed with reduced labour and machinery investment.