

Corn Silage – Paul Tudor Grazag



Economics for growing, harvesting & Feeding



Corn silage – “king of forages”

- WUE double that of Temperate Grasses
- Versatile feed
- 60% more nutrients than grain alone
- Safe palatable feed
- 0.6 – 1kg adg
- Roughage source in transition and finishing rations



Pros and Cons for Corn Silage

Advantages

- High yield
- most beef production per acre
- Versatile feed
- Supports growing calves, supplements low quality
- Ease of feeding
- Low feeding losses

Disadvantages

- High input costs to produce
- Seed, fertilizer, chopping
- Potential high storage loss
- Expensive to transport
- Limited marketability
- And difficult to determine price



Nutrient Removal of Corn Silage

Nutrient Removal Rates	Silage	Total Silage Removal T/ha
	Kg/T	22.2 DM
N	13	288.6
P	4.2	93.24
K	17	377.4
S	0.6	13.32
Mg	1.6	35.52

22T DM / ha = 14T Wet Product / acre



Organic Fertiliser

Manure Wet Tons / ha			24
Dry Tons / ha			16.08
Element	Unit	Ave 2005-2010	Kg Applied
pH (H2O)		7.18	
Moisture	%	33	7920
Nitrogen	%	1.6	257
Phosphorus	%	0.78	125
Sulphur	%	0.4	64
Potassium	%	1.8	289
Calcium	%	2.1	338



Soil Tests Pre & Post Rotation

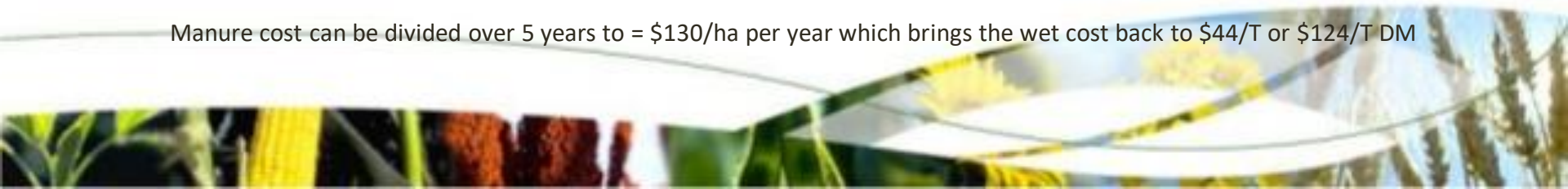
Years	Nth River	07/99	Manure 00	07/06
Rate			10/acre	
pH	CaCl	4.9	5.4	6.1
Major Elemnts				
Nitrogen (Nitrate)	mg/kg	2		19
Ammonium N	mg/kg		193	3
Phosphorus	mg/kg	26	95	41
Potassium	mg/kg	74	215	176
Sulphur	mg/kg	5	70	13.6



Cost Analysis 34T/ha Wet

	Total \$	\$/ha
Fallow sprays		\$126.00
Fertiliser Manure 24T/ha		\$648.00
Cultivation		\$90.00
Planting		\$80.00
Pre-emergent chemical		\$58.00
Seed		\$308.00
Harvest + Transport	\$19.00	\$650.00
Inoculant	\$3.50	\$119.00
Silage Plastic	\$1.25	\$48.00
Tyres	\$4.00	\$12.00
Total Cost / Ha		\$2,139.00
Cost/ Wet Ton		\$63

Manure cost can be divided over 5 years to = \$130/ha per year which brings the wet cost back to \$44/T or \$124/T DM



Feed Cost Comparison 2014

	Analysis		Cost / T Landed Bulk	Cost/Kg CP	Cost/Kg MJ
	Energy MJ/Kg DM	Crude Protein %			
Barley Grain	13	11	\$340	\$3.43	\$2.91
Lupins	13	32	\$480	\$1.66	\$4.10
Sorghum Hay	8	6	\$200	\$3.50	\$2.94
Lucerne Hay	11	18	\$450	\$2.94	\$4.81
Commercial Pellet	11	21	\$700	\$3.79	\$7.23
Maize Silage	10	7.5	\$124	\$1.56	\$1.17

