



"FiveF"

"Forages and Farm Feeds For the Future"



ALKALAGE 2009

When considering the utilisation of home grown cereals on farm this year why not think about the ability of Alkalage to add highly cost effective protein to your diets whilst maximising the crops potential to produce starch and save on purchased feed costs.

Alkalage also enhances cow rumen and general health through it's alkaline pH and effective digestible fibre content.

Please consider the following points before you decide if you are going to produce wholecrop, Alkalage or combine for grain.

Cost Comparison Combining and Feeding Crop vs Alkalage

The Crop Harvest Method Crop Fraction	8.6t/ha Wheat Crop			Alkalage Whole Crop
	Straw	Grain	Chaff	
Yield t/ha	5	8.6	1.25	14.85
Baling Cost £/ha	20		Chaff	
Combining Cost £/ha		75	Lost	
Harvesting Cost £/ha				125
Drying Cost £/ha		125		
Home n' Dry Cost £/ha (2)				327
Chopping Cost £/ha	25			
Grain Milling Cost £/ha		105		
Total Cost £/ha		350		452
Protein Added to Balance (1)		398		
Total Weight Fed t/ha		15.45		15.44
Cost / tonne fed		48		29.25

(1) Need to Add 15% of 50:50 Mix of HiPro Soya and Rape @ £265/t

(2) Home n' Dry at 2008 Price

Assumes Storage Costs are similar

No Account of time taken to process Combine Materials vs Alkalage in the winter

- **Alkalage** is a substantially lower cost method of preserving a cereal crop for feeding in the winter.
- **Alkalage** production harvests and feeds the valuable chaff fraction.
- **Alkalage** can be harvested in moist conditions.
- **Alkalage** storage is simple in a well sealed conventional bunker silo.
- **Alkalage** feedout is simple using a grab or bucket straight into feeder wagon or the barrier / feeder.
- **Alkalage** has an alkaline pH and so has the added benefit of being a powerful rumen buffer.
- **Alkalage** fibre has enhanced digestibility compared with straw due the action of ammonia within the clamp breaking down un-digestible lignin in plant cell walls.



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Maize & Grass Silage Production Costs Compared with Alkalage

	Alkalage	Maize	3 Cuts Grass	
Crop Production Costs (£/ha)				
Fertiliser	151	151	298	
Seeds / Reseeding	55	120	10	
Spray / Fuel/ Misc	135	120	180	
Rental	173	173	173	
Harvesting Cost	130	120	205	
Additive Cost	336	86	80	
Total Cost £/ha	981	770	946	
Yield t/ha	16	38	39	
Clamp Capacity Cubic m	1600	3000	3150	
Dry Matter %	75	28	26	
ME MJ/kgDM	11.2	11.2	11.2	
Crude Protein %	15	10.5	14.5	
Starch %	35	26	neg	
pH	8.5	4	3.8	
DM Yield t/ha	12	10.5	10.1	
Starch Yield t/ha	4.2	2.75	neg	
Protein Yield t/ha	1.86	1.1	1.46	
Cost £/tDM	82	73	94	
Starch £/1000kg	233	280	n/a	Wheat @ £130/t = £225
Protein £/1000kg	527	700	648	Hi Pro @ £300/t = £625

Data Sources: CARA / ABN 2006, Anderson Consulting / ABN 2006, Liverpool University Dairy Unit 2007 (Adjusted to 2009 costs for fertiliser, additives, fuel and contractor costs)

- **Alkalage** Production Costs are similar to Grass Silage and Maize.
- **Alkalage** Harvest is more flexible both with regard to a wide crop window and the ability to manipulate nutrient density through cut height.
- **Alkalage** is a more cost effective provider of both Starch and Protein together than either Maize or Grass Silage on their own or in combination.
- **Alkalage** is highly effective in a combination with Maize and / or Grass Silage – a three forage system is a fantastic hedge against the weather and allows effective use of slurry soil nutrients across the whole permitted spread period.
- **Alkalage** is primarily used to improve rumen health and hence animal health, animal performance, feed efficiency and profitability.



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