FARM ADVISORY SERVICE





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Silage Quality 2016
& What can we do to Improve Grassland Management in 2017

Ewan Johnston

Silage & Grassland 2017

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- Silage Quality 2016
- How can we Improve Silage Quality for 2017
- Maximising Grass & Clover in 2017

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SAC Silage Analysis 2016

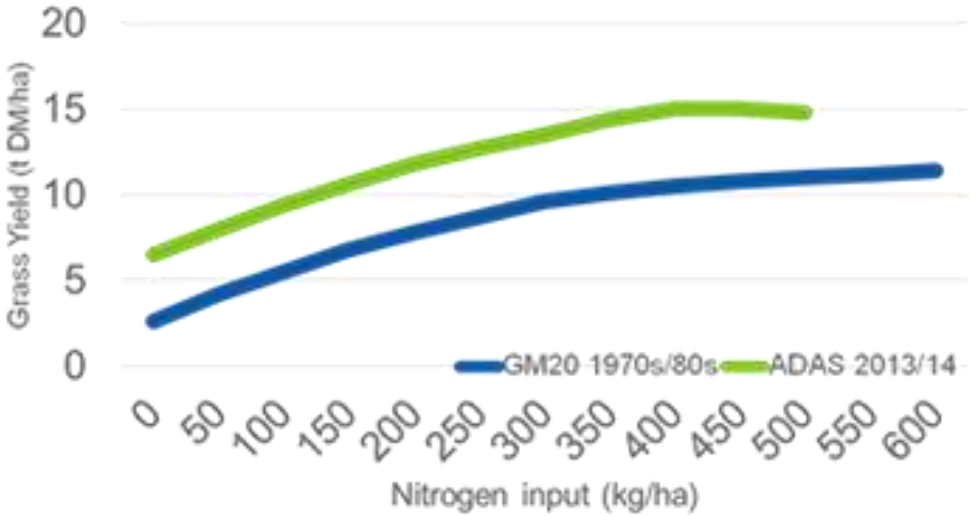
	Pit	Range	Bale	Range
Dry Matter (g/kg)	282	146 - 565	342	162 – 586
D Value (%)	67	50 – 77	66	50 – 77
ME (MJ/kgDM)	10.7	8 – 12.3	10.7	8 – 12.3
CP (g/kgDM)	102	53 – 159	103	61 – 165
pH	4.3	3.7 – 5.0	4.5	3.9 – 5.3
Ash (g/kgDM)	72	41 – 102	74	30 - 103

Silage Quality Comparison 2014 v 2016

	PIT		BALE	
	2016	2014	2016	2014
Dry Matter	282	279	342	349
D Value	67	67	66	67
ME	10.7	10.8	10.7	10.7
CP	103	119	103	116
pH	4.3	4.2	4.5	4.5

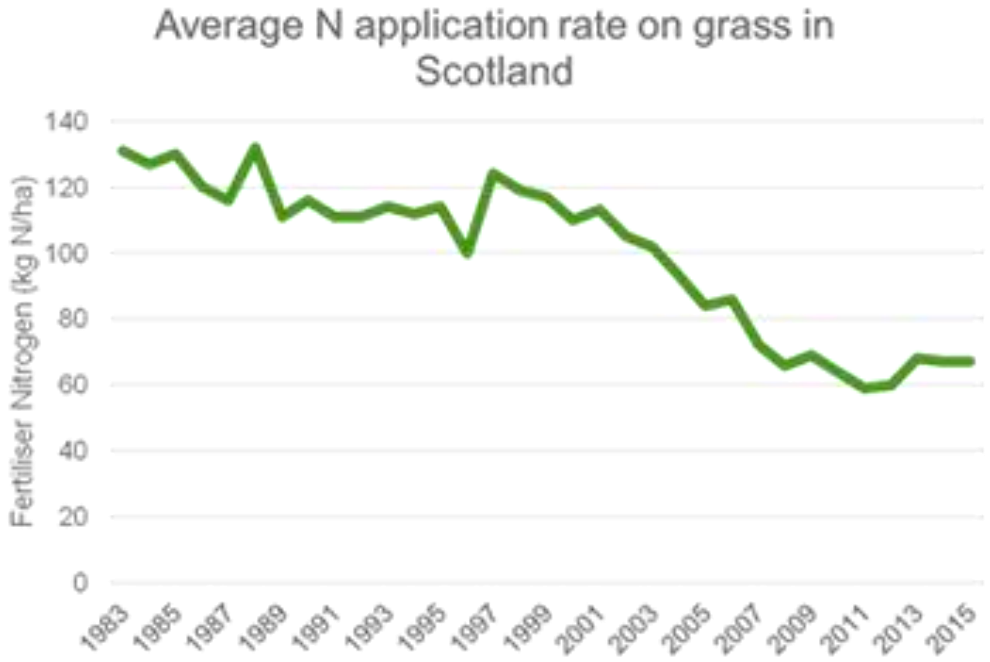
Reasons for Low Protein Silages

- More N efficient varieties of grass



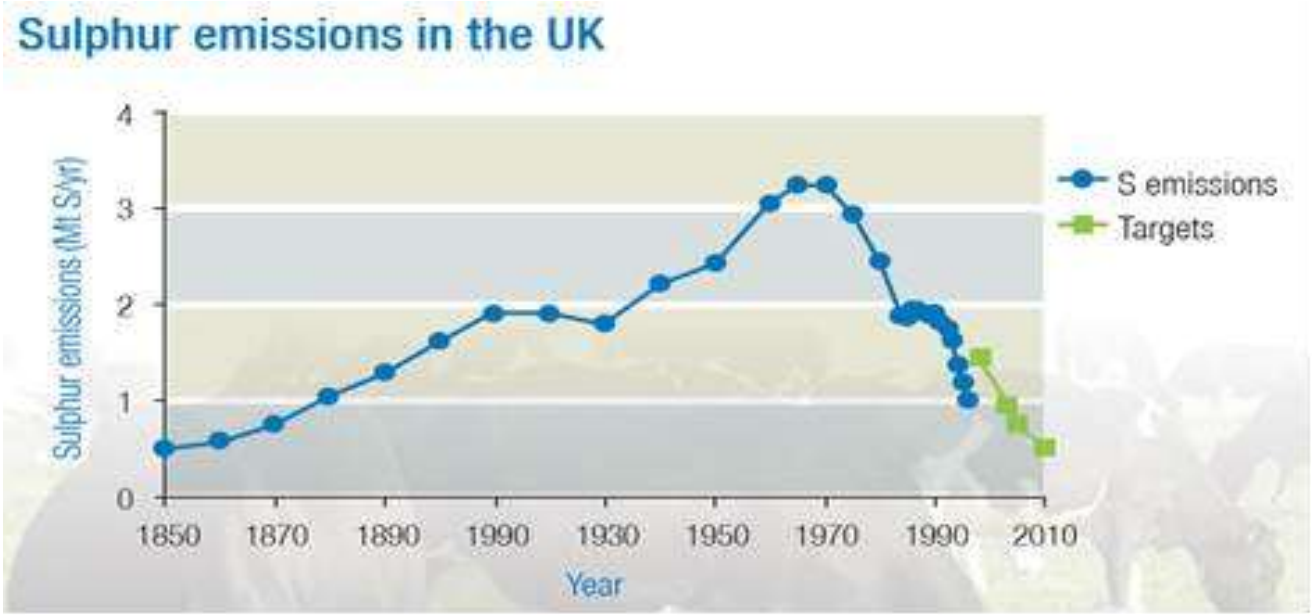
Reasons for Low Protein Silages

- Reduced N fertiliser usage



Reasons for Low Protein Silages

- Sulphur deficiency?



Other reasons??

- Cold Spring
- Grass growth linked to day length
- Rapid growth of grass when soils warmed up
- Conversion of Nitrogen Fert to Grass protein not kept up

Ensuring Sufficient Protein in Cattle Rations

	Minimum CP%
Dry Suckler Cow	9%
Lactating Suckler Cow	11%
Nearly Weaned Suckled Calf	14%
Store Cattle	11%
Finishing Cattle	12%
Intensive Finishing	13%

High Protein Feeds

	CP%
Wheat Distillers Dark Grains	34
Barley Distillers Dark Grains	26
Rapeseed Meal	40
Soyabean Meal	56
Draff	20
Pot Ale Syrup	36

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Adjust N Fertiliser levels

- Consider need to increase N fertiliser levels
- Get soil analysis to highlight ph, P & K levels
- Grass will utilise 2 units of N fert/day in good growing conditions
- Adjust depending on level of winter rainfall

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Apply/Increase Sulphur Fertiliser

- Grass 2nd most responsive to Sulphur after WOSR/brassica crops
- Trials in Cheshire show a 29% increase in grass DM yields
- Trial in Devon highlighted inclusion of sulphur increased CP% by 3%
- Devon trial carried out in 1998 and S emissions in UK have halved since again since then
- Check N:S ration in herbage 10 days prior to cutting if think there is an issue

Incorporate/Increase Clover Content in Grass Mixtures

- Reduces dependency on N Fert (can fix 150kgN/ha/yr)
- Improves livestock intakes (up to 30%)
- Improves feed value
  - Higher digestability
  - Higher Protein Content
  - Higher Mineral Content
- Reduces impact on climate change

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Minimise CP Losses in Silage

- Focus on making high DM silage
- Rapid filling & covering of pit or wrapping of bales
- Avoid excessive tramping of pit
- Ensure good seal on pit or bales
- Prevent bird damage to covers

Maximising Grass & Clover

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Getting the Basics Right!

- Soil pH – (Ideal pH 5.8 – 6.2)
- Nutrient status (N,P,K + S)
- Control Weeds
- Drainage/Compaction Issues

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Maximising Grass & Clover

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Only Then Consider Reseeding

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Maximising Grass & Clover

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Beef 2020 - Vision

"A confident market driven grass based cattle industry using leading edge technologies capable of delivering profitably to the home and world market high provenance, quality beef from sustainable production systems."

Maximising Grass & Clover

"The lowest cost of feeding our animals is by the ***method*** of grazing, using the grass at its ***highest*** feed value"

+

(when most of the grass is ***utilised***)

Maximising Grass & Clover

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System	Annual Yield (t DM/ha)	Utilisation (%)	Usable yield (t DM/ha)	Percentage increase
Set stocking	8.5 (modest)	50	4.3	
Rotational	10.2	65	6.6	56%
Paddock	10.2	80	8.2	92%

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	Set stocked heifers 2013	Paddock grazed heifers 2014	Set stocked breeding heifers 2014
LWG kg/hd/day	0.59	0.91	0.67
LWG kg/ha/day	2.80	5.94	2.86
Income/ha	381	1499	1045
Margin/ha	98.40	1092	821
Infrastructure costs/hd		26.70	

Maximising Grass & Clover

Why Rotational Grassland/ Paddock Grazing?

- Improved Utilisation
- Improved Flexibility – manages shortages/surpluses
- Maintains grass quality for longer
- Increases overall yield of grass
- Increases livestock intakes (fresh bite)
- Easier to measure grassland performance
    - Grass heights
    - Kg DM/ha

Thank You

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