

# GREENSWARD

*Journal of the South West and Central Scotland  
Grassland Societies*



No. 51

2010





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Front Cover Photograph: Beef Sucklers on the SAC Grassland Development Farm  
at South Mains, Sanquhar, Dumfries (Douglas & Lorna Greenshields), August 2008  
(Photo : Kev Bevan )



Winners at the SWSGS 2008 Silage Competition night in the Woodland House Hotel, Dumfries, 29 January 2009  
Silage Judge Jimmy Mitchell (Front centre) presenting the SWSGS Rosebowl to 2008 Silage Champion Calum McGinlay (2nd year in succession) (Front 2nd left) and the BP Trophy to Beef/Sheep winner Sam Carlisle (Front 2nd right). Chairman and Maize Silage winner Hugh McClymont, Front 1st left. Photo: *Solway Press Services, Bob Geddes*

## FOREWORD

From the first article onwards in this issue of 'Greensward', a dominant theme is that of 'change'. Many of the farms visited have introduced new systems, constructed new buildings, installed new slurry handling facilities and adopted new approaches. The closer monitoring and budgeting of grass growth, in particular, are being practised on beef/sheep farms, together with a more widespread attention to Nutrient Management, resulting in economies of fertiliser use and less damage to the environment.

Especially welcome are the articles from younger contributors from south west Scotland, who represent the future and who are perhaps more ready for change to something new. The Societies place great value on encouraging members early in their career and sponsoring student prizes and travel grants, as an investment in the future of farming.

This issue of 'Greensward' records events in the Central and South West Scotland Grassland Societies from 2008 to early 2010. The year label on the title page has been brought forward to 2010, missing out 2009, to correspond with the year of publication. The two Societies are very grateful to all host farmers for invitations to farm visits, even more so in the present fast-moving times. Sincere thanks also to speakers at meetings and Silage Judges, to the Societies' Chairmen and Committee members and to sponsors for their very willing support of meetings. The continued help, liaison and inputs from SAC staff at Auchincruive, Crichton Royal Farm and local Farm Business Services offices are always much appreciated.

Major credit and thanks are given to all contributors to this edition, and to all companies who are advertising and showing their support of grassland. The Central Scotland and South West Scotland Grassland Societies, together with the Grassland Societies in the North of Scotland ('Norggrass') and the East of Scotland, wish to express particular thanks to Dr Ron Harkess OBE for his very generous donation of a silver gilt cup, the Ron Harkess Silage Trophy, to be awarded annually to the runner-up in the Scottish Grassland Societies' Competition (see p56).

As always it is a pleasure to acknowledge the efficient and patient work of Lorraine Reid, SAC Consulting, Auchincruive for the word-processing and composing of the Journal, with very many thanks, and also to Scott McDonald and Walker & Connell for their continued dedicated work in publication.

G E D TILEY - Journal Editor

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**THE CHALLENGES OF CHANGE**  
**Royal Agricultural Society of the Commonwealth (RASC)**  
**23<sup>rd</sup> Commonwealth Agricultural Conference**  
**New Zealand, November 2008**

**Kara Craig**

Agricultural businesses across the world face challenges each and every day, some at the farm level and others at industry level, some straightforward while others more complicated. This has always been so and it is the farmers who have taken on such challenges, using their skills and experience to develop the industry, environment and landscape to bring these to where they are today. The main challenges for farmers, as with all businesses, are “**the challenges of change**”. The 23<sup>rd</sup> Commonwealth Agricultural Conference embraced this theme, and New Zealand was the ideal host and venue for it. My 16-day agricultural experience in New Zealand included a tour of the North Island, a packed 4 day conference in Christchurch and a tour of the South Island. New Zealand is a teenager in world terms and has significant Scottish heritage. This small country has taken expertise from the original pioneers and moulded it into something which has allowed agriculture to become the largest industry exporter in the country, taking only five generations to do so as opposed to twenty generations in Scotland. Such a rapid transformation has been helped by favourable soils and climate, obviously making things less complicated than that faced by Scottish farmers. However, it is not all rosy in New Zealand and there are still many challenges ahead, with market, climatic and environmental issues at the forefront. During my time in New Zealand I saw farmers and business owners working hard to be sustainable in current times and, with an obvious quality of open-mindedness, it seems that future change is possible.

The North Island tour was an ideal introduction to the RASC. There were around 70 delegates on the tour, most of whom were of the “more mature generation”. I was part of a small next generation (NG) contingency which brought the average age of the tour to around 75! Joking apart, the company was by far the best part of the tour - informative and entertaining, to say the least. The tour was comprehensive and provided much food for thought. Limestone Downs, a large 3,100ha beef and sheep station carrying out research to provide information to North Island hill farmers, was an appropriate opening visit. A visit to the Cambridge Stud showed us a rural business that is exceptional. Zabeel, the top stallion at the Stud, had a servicing fee of \$100,000 and serviced a maximum of 100 mares each year. We also visited a fantastic Hereford stud, a deer farm, a winery, an orchard and a livestock finishing unit. Then a trip to Rissington Breedlines a well-known genetic business which was just a family farming enterprise a few years ago. Our pre-conference tour ended with a visit to the Royal



Christchurch Show. A glorious day, something which is common in the southern hemisphere, made the show experience even more enjoyable.

The conference itself was a significant experience for me. I not only met HRH the Princess Royal but was among over 250 delegates oozing with enthusiasm and knowledge. The professionalism and confidence of the NG group was overwhelming and I was proud to be part of it. The conference was in three sections: global agriculture, agricultural societies and New Zealand agriculture. There was a brief description of the challenges faced by less developed areas of the commonwealth including welfare, traceability, farming practices and resources. At the show, educating young people was a major theme as this is seen as a route to sustainability in agriculture. Finally, it was interesting to hear that in New Zealand there is life after subsidies, something which Scotland may have to face in the near future. The question is: are Scottish farmers up for the challenge of change? New Zealand has learned a great deal from us in the past but on this subject the tables are turned and maybe we can learn from them. It does no harm to start looking early so that when the time comes it is not such a challenge to make.

The South Island post conference tour was every bit as interesting as the pre tour. The brilliance of a young family who were building a dairy empire on the Canterbury Plains was impressive and inspiring. They faced water, as well as market challenges but expansion was ongoing. A visit to Mount Linton, a massive beef and sheep station that extended to 22,000ha, was quite spectacular. The management team was youthful and full of drive. Farming practices I observed in New Zealand were successful though it is unlikely that all these can be utilised in Scotland due to many factors. A dominant feature is the simplistic and flexible attitude of New Zealanders. The overall impression was that farmers are more market driven with a much more upbeat and optimistic outlook. Even though Scotland is older and wiser, New Zealand has been farming with its head up and reaping the rewards. It is important that Scottish farmers are versatile in their approaches and should not be adverse to change. It is also vital that young people and the urban population are encouraged to become involved in agriculture and rural life. Unless the general population fully understands that the purpose of farming is to feed them as well as maintaining the landscape, there will be no progress towards a sustainable agricultural environment. It must be a team effort.

The conference and tours of my RASC experience were a great mixture of technical, political and organisational information and have helped to broaden my agricultural knowledge beyond Ayrshire. The social activities were a significant part of the trip and I made many friends, young and old, across the Commonwealth and look forward to meeting up with them again in the future. I am indebted to the Roy Waterston Trust for introducing me to the RASC and for the opportunity that I was given to visit New Zealand. Grateful thanks also to the South West Scotland Grassland Society for their support.

*Kara also visited Papua New Guinea with the RASC in 2009. A report is held over until next year's Greensward.*

**BEATING THE DRUM ABOUT GRASS**  
**Richard Ratcliffe, Hill Farm, Sound, Nantwich, Cheshire**  
**President of the British Grassland Society 2007-2008**

My year as President of the BGS was thoroughly enjoyable and memorable in many ways. It was an opportunity to meet a lot of grassland farmers, and see plenty of farms. The variation between those farmers who spoke of little else but grass, and those who spoke of little else but their stock, was very revealing. We have all known that there are farmers operating very successfully on both Low Input / Low Output, and High Input / High Output systems, but for probably 80+ % of grassland farmers, a system in between is the norm.

Having dairy farmed in Cheshire on the “High” system, what I saw of those on the “Low” system during my year as President was really interesting. The ‘Low’ farmers grow more grass than we do, use more of it, measure it before grazing, graze it rotationally, using well laid out tracks to reduce the impact of stock walking over the same fields every day. They focus more on the logistics of the farm and business, not getting tied up cosseting delicate high yielding cows. So, where does their enjoyment come from? Answer: Profit - and a job well done! It’s no good working all hours, as the farmer who owns the business, when you end up earning less than your staff!

Successful grass farmers all seem very active in getting off their own farms to visit other farms, either through joining a local study group, or going on farm walks organised by their local grassland society, or the bigger BGS Spring Grazing farm visits. The majority of these grassland enthusiasts haven’t changed their system overnight, but cherry picked a few aspects of management to try on their own farm to test the water before making a big change. Two examples are:- i) keeping sheep off the cow grazing area during the Winter to allow the grass to accumulate quietly and giving the opportunity for a much earlier turnout in the Spring; or ii) **changing** to a rigid block calving system to concentrate stock management during certain times of the year, avoiding the day to day grind of calving all the year round.

Block calving is in my opinion one of the biggest secrets in both dairy and suckler herds. When applied strictly, it concentrates calving and serving into short periods that get maximum attention, which really improves efficiency. Once into a tight calving block, farmers rarely let it slip back, although a few dairy herds have added a second block to satisfy milk buyers wanting a more even supply across the year.

BGS, working with local Grassland Societies, has a number of events lined up for 2010 to look at grassland management on farms. The continued popularity of our Early Spring Farm Walks sees another series of events across the country in March

and early April. They will focus on actual grazing management early in the season, how the grass growth was achieved, and the grazing options for the rest of the season. These are extremely practical events with a real buzz about them. Everybody attending is almost guaranteed to go home with something to think about!

In 2009, BGS started a unique scheme called **Grazing Partners**, which sees farmers experienced in modern grazing techniques, share their knowledge on a one-to-one basis with others who want to improve their grazing management. Good funding for the project has seen nine farmers so far trained as mentors to share their grazing successes, and help avoid their mistakes. It is aimed at Dairy, Beef and Sheep farmers, and is based on a very successful system set up in Canada. For more details, contact the BGS office.

And finally, this year's annual BGS Summer Meeting will be based at Edinburgh, looking at grassland management on beef, sheep and dairy farms in East Scotland over three days, from July 4<sup>th</sup> to 7<sup>th</sup>. These are always super events to attend, not only for the quality of the farms visited, but the quality of the fellow delegates from all over the UK and abroad. Its well worth taking a break in high Summer to attend. I look forward to meeting you there!

### **BGS SUMMER VISIT 2010 – EAST OF SCOTLAND, 4-7 JULY 2010**

This year the British Grassland Society Summer visit is hosted by the East of Scotland Grassland Society and is based at the Herriot-Watt University, Edinburgh.

The programme of farm visits, 2 per day, will take visitors to see beef/sheep and dairy farms in Perthshire, Fife and the Borders.

Day visitors are welcome on selected days but forward booking is essential for catering purposes. Contact BGS office on 02476 696600 or email to [office@britishgrassland.com](mailto:office@britishgrassland.com).

**SWSGS WINTER FARM VISIT 2008 – DUMFRIES**  
**G E D Tiley**

**Visit to NETHER DARGAVEL, Annan Road, Dumfries**  
**on 11 December 2008**

(By Invitation: *Sam Carlisle & family*)

Visit sponsored by **South West Seeds Ltd**

On a bright sunny December day a large group of SWSGS members enjoyed a memorable visit to the suckler and beef finishing unit at Nether Dargavel. The Carlisle family, who moved in 2002 from N.Ireland, can clearly demonstrate a system of suckler and beef production on this land which lies no more than 10 metres above sea level. Along with the soil type, this makes it ideal for outwintering on this 203ha farm which lies over a sandy subsoil while the remaining one third has a covering of peat over sand. The sandy areas can readily dry out during summer, leading to a shortage of grazing, but are suitable for maize and barley and the outwintering of the suckler herds. Summer grazing is supplemented with 150ha of rented grazing.

The suckler herd consists of 320 Irish black cows, with 50 replacement heifers bought annually, all outwintered. The heifers are carefully selected, with the correct type now being more difficult to obtain and are TB and Brucellosis tested on arrival and again after 60 days. They are also vaccinated for BVD and Leptospirosis. Charolais bulls are mainly used on the cows with Simmental on the heifers. Spring calving cows suckle their calves through to the end of October before being weaned. These cows are fed bale silage until calving February-March. They are run with bulls from mid May for 8 weeks. The remaining third of the cows calve in autumn and are outwintered on a maize silage/grass silage mix and draff until the end of April on the ground destined for maize and barley. The bulls are put out for no more than 6-7 weeks from 1st November, to ensure an even batch of the calves. The Autumn calves suckle until the following August to keep cow condition down. Housing for store cattle is on slats with rubber mats and the slurry is scraped out with underground scrapers to a lagoon, preventing the build up of ammonia. The other sheds are straw bedded for fat cattle but more slats are going to be added to this unit. All calves plus 500-600 bought-in stores are finished. Sheep numbers were limited but regarded as essential to keep ragwort infestation down. They received no feeding apart from licks.

Silage fields are grazed up to 15 April with the sheep flock before receiving slurry and 100kg N ha<sup>-1</sup>. First cut was early June with second cut early August after 75kg N ha<sup>-1</sup>. 50ha are cut twice, aiming for maximum quality and quantity. Silage is mowed with a conditioner and rowed up the following day ready for the lifting. No additive is applied to the first cut but the second cut receives an additive. Clamps were covered with a green plastic cover instead of tyres.

35-40ha of maize are grown annually, without plastic: varieties Revolver and Acclaim were used in 2008. The crop is well adapted to the droughty soils and is allowed to mature to increase DM and starch contents. Maize silage is fed to all stock except spring calving cows. 30ha of spring barley are grown for feed. The feed mixes were precisely budgeted and costed per animal, aiming for liveweight gains of 1-1.5kg day<sup>-1</sup>. A computer programme calculated daily profit. All stock were fed daily and outside stock on alternative days ; labour is one full time man and part time retired worker.

The Society was privileged to visit this efficient beef unit in winter and wish to thank Sam and his family, and tractor drivers for transport to see the cows and calves in the field.

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**DUTCH DAIRYING IN FOCUS**  
**BGS Summer Meeting in The Netherlands, 14-16 July 2008**  
**Jessica Buss, Director BGS**

In 2008 the BGS were in The Netherlands for its Summer Meeting visiting three farms, a research centre, plant breeding plots and a machinery factory, to see new developments in dairying. The tour was arranged by Bas van Santen of the Dairy Group and Nigel Young, immediate Past President of BGS.

**Falkena Hoeve, Friesland** (Eef Vernooij). 90 cows are run on 72ha, including a maize area (18ha), limited by environmental restrictions which also discourage grass grazing. Five silage cuts are taken per year to optimise yield and quality. Feeding silage gives control of inputs, necessary to maintain high milk yields (11,300 litres). Summer strip grazing of 5.5-6 hours daily from late May reduces indoor feeding, but youngstock are housed all year. New building was being considered to keep the cows inside and increase milk yields.

**Mossel weg** (Jan van der Vliert). A husband and wife team manage 120 cows kept inside and milked by 2 robots with no additional labour. As in the previous farm, grazing was found to waste grass which is expensive with the high cost of land (over £50K ha<sup>-1</sup>). Management is easier indoors and the cows prefer to be inside when the days are hot. Excess slurry can be spread on a neighbouring arable farm. Milk yield is 10,000 litres.

**Van Weperen Farm, Friesland** (Jan van Weperen). Jan and brother Klaas with 270 cows have reduced milk yields from 11,000 to 9,200 litres. Concentrate use has been lowered from 3,400kg to 2,600kg per cow, culling rates have dropped from 30% to 24%. The herd is easier to manage and staff social life better. Production costs 25p litre<sup>-1</sup>.

**Lelystad Research Centre** – 500 cows are housed all year in a low cost building with a lightweight frame and polythene cover plus a fine net to provide shade. Six months of slurry storage is provided underfloor. Automatic side shutters control the cow environment.

**Slurry in the bag.** All slurry stores must be covered in the Netherlands and a slurry-bag system, the Albers Alligator Slurry Bag, has been developed at Oosterhout with a capacity of 5000m<sup>3</sup>. The polyester bag has a PVC coating and its top moves up and down with content of slurry.

**Grass and Forage Breeding.** Barengbrug's breeding station at Driel was visited to see the laboratories, production and packing facilities. Plots of new and existing varieties were demonstrated and new Tall Fescue varieties were of possible interest for UK.

**Lely Factory, Maasland.** Developments in robotic milking, grassland machinery and diet feeders were seen at the Lely factory. The company places emphasis on continuous research and development.

*The above summary is condensed from British Grassland Society's **Grass & Forage Farmer**, Autumn 2008, with acknowledgement.*

**SWSGS SILAGE COMPETITION 2008**  
**Competition Evening of SWSGS, held in Woodland House Hotel, Dumfries**  
**On 29 January 2009**  
**G E D Tiley**

Sponsored by **NWF Agriculture Ltd**, with prizes donated by **Biotol Ltd, bpi-agri, John Watson Seeds Ltd** and **Nickerson UK Ltd**

Silage Judge: **Jimmy Mitchell, Kennetsideheads, Kelso**

Following a warm welcome from Chairman Hugh McClymont to a good turnout for the Competition Evening, there was a short AGM of the Society. A fair summer in 2008 had turned to one of the worst autumns for many years, with some crops unharvestable. Silage qualities at AgriScot and in the competition were however good. All host farmers during the past year, all the Society's sponsors and Committee members were thanked for their support.

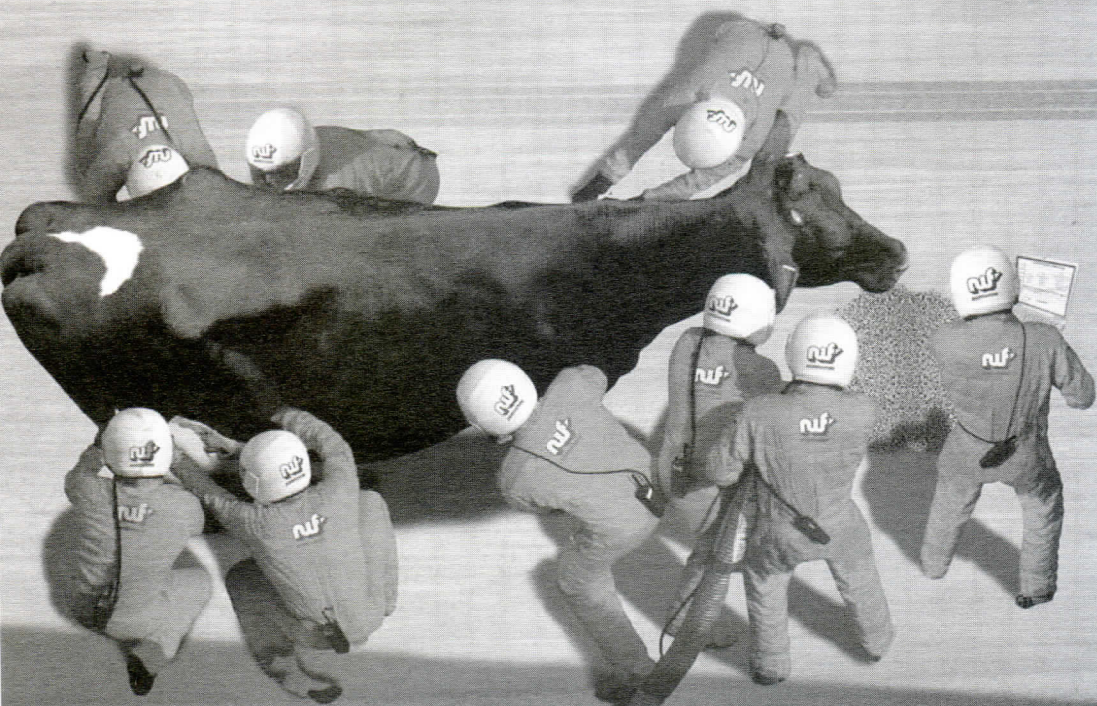
**Silage Quality 2008 – Rhidian Jones, SAC Select Services Beef Specialist, Dumfries**

Dairy silage quality had been steadily getting better over the years. However, the ranges experienced in chemical analyses were very great: DM 22.7-45.8; D-value 57-77; ME 9.1-12.3; Protein 9.7-18.1; intake potential 79-123.

Dry matters of first cuts were quite high (Table 1). Some silages were performing well but others poorly – the cows give the best evaluation. Early housing last year might signal silage shortage, so alternative feeds should be considered to buy in and feed budgets checked. The Competition highlighted that year after year the best silages were made by the same farmers. This was no accident, but due to good planning. Looking ahead and planning was therefore recommended concerning such details as dates for removing sheep, fertilisers, preparing the clamp, contractors, etc.

Beef/sheep and Bale silages also showed a great range of analysis values, both in the south west and over the whole of Scotland, demonstrating a tremendous scope for improvement in quality. Some bulky cuts had poor quality which could be acceptable for suckler cows and stores due to go out to grass. Again, feed budgeting and costing of feed values were desirable.

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**Table 1 - SILAGE COMPETITION 2008 - ANALYSES MEANS**

**Overall Means - Grass Silages**

<b>Group (Number)</b>	<b>DM (%)</b>	<b>D (%)</b>	<b>CP (%)</b>	<b>SIP</b>	<b>ME</b>
All Dairy (60)	31.8	70.7	13.8	103.2	11.3
Beef/Sheep (16)	36.0	66.3	12.0	99.7	10.6
Big Bale (6)	45.0	60.7	11.5	102.8	9.7
<b>Dairy</b>					
Ayr (16)	34.1	70.1	13.7	104.4	11.2
Dumfries (23)	30.7	72.0	14.3	104.4	11.5
Kirkcudbright (11)	28.9	70.5	13.8	100.0	11.3
Wigtown (10)	33.9	68.9	12.8	101.7	11.0

**Wholecrop and Maize Silages**

<b>Group (Number)</b>	<b>DM (g kg<sup>-1</sup>)</b>	<b>ME</b>	<b>CP (% DM)</b>	<b>Starch (% DM)</b>
Wholecrop	427	9.8	11.6	-
Maize	269	11.2	8.4	25.2

**Silage Judge**

**Jimmy Mitchell.** Introducing himself as General Manager of Kennetsideheads, Jimmy Mitchell revealed he had travelled over 500 miles while judging, but had been unable to see much of the countryside due to foggy conditions. He thanked the Society for the invitation to judge in SW Scotland where he felt it should be easy to make good silage. He had been looking for energy and keenness and to see farms run as businesses with confidence. He was disappointed that no one mentioned the varieties of grass grown and why these were included in the seeds mixture and not leave everything to the salesman.

**Nigel Hawkes, NWF Agriculture** said briefly that it was difficult for the farmer to keep up-to-date with all the latest information and that he preferred farmers who harassed the salesman with questions to find this out. He suggested that farmers should go to see grass demonstration plots growing within their area to help select the right varieties. He mentioned a new yeast product with a buffer which improved DM intake.

**Table 2 – 2008 Silage Competition – Short Leet Entrants**

<i>Prizes</i>		<i>Analyses</i> (35)	<i>Marks</i>	
			<i>Inspection</i> (65)	<i>Total</i> (100)
	<b>Dairy Class</b>			
1st & SWSGS Rosebowl	C McGinlay, Ingleston, Irongray	30.4	53.0	83.4
2 <sup>nd</sup>	J R Heuchan & Son, Gerranton, Castle Douglas	28.2	53.0	81.2
3 <sup>rd</sup>	J Forrest & Son, Townhead of Lambroughton, Stewarton	28.7	52.0	80.7
	I G Campbell & Co, Auchlane, Castle Douglas	30.3	50.0	80.3
Best New Entrant	R Fleming, Hillhead, Kirkpatrick Fleming	30.1	48.0	78.1
Michael Milligan Prize	A Allison, Macnairston, Ayr	28.8	49.0	77.8
	J McAuslan, SAC Auchincruive, Ayr	29.4	48.0	77.4
	A Braid, Lakehead, Closeburn	27.5	44.0	71.5
	J McColm, Garthland Mains, Stranraer	30.3	41.0	71.3
	D J Kirkpatrick & Son, Stepends, Penpont	32.0	39.0	71.0
	K Campbell, Slagshaw, Castle Douglas	21.8	49.0	70.8
	A Brown, Raphad, Stranraer	20.5	46.0	66.5
	<b>Beef/Sheep Class</b>			
1 <sup>st</sup> & BP Trophy	S Carlisle, Nether Dargavel, Dumfries	29.9	49.0	78.9
	A Prentice, Hermitage, Haugh of Urr	17.6	43.0	60.6
	<b>Big Bale Class</b> (on analysis)			
1 <sup>st</sup>	J&A Nelson, Redcroft, Parton, Castle Douglas	19.9	-	-
	<b>Best Silage in County</b> (on analysis)			<i>Analyses (35)</i>
Ayrshire	J McAuslan, SAC Auchincruive, Ayr			29.4
Dumfries	D J Kirkpatrick & Son, Stepends, Penpont			32.0
Kirkcudbright	I G Campbell & Co, Auchlane, Castle Douglas			30.3
Wigtown	J McColm, Garthland Mains, Stranraer			30.3
	<b>Best Wholecrop Silage</b> (on analysis)			<i>Marks</i>
Biotal Prize	W J W Hogarth, Knockrivoch, Saltcoats			42.3%
	<b>Best Maize Silage</b> (on analysis)			
Nickerson Prize	H McClymont, Crichton Royal Farm, Dumfries			63.1%

**Best New Entrant** prize donated by **John Watson Seeds Ltd.** 1<sup>st</sup> **Dairy, Beef/Sheep** and **Big Bale** winners also received cash tokens donated by **bpi-agri Ltd.** The **Best Photograph** prize was won by **Wallace Welsh, Warnockland, Fenwick.**

### **Silage Winner's Comments**

**Calum McGinlay** emphasised that he planned well ahead in his silage making. Sheep were taken off late January; waste was avoided in feeding and attention was paid to 'what the cow was telling me'. The 2008 silage was cut on 12 May and lifted 2 days' later; the grass was not spread out to avoid being too dry and also reduce costs. Grass varieties used had remained constant for 7 years, being 2/3 mid-maturity and 1/3 late, with no early varieties of perennial ryegrass. Hybrid Italian ryegrasses were being tried.

**Sam Carlisle** had a different system closing up fields in mid April, after having put all slurry on by mid-February. The grass was cut just before emergence of the seedhead for lifting with a forage wagon. More mature grass required a chopper. Plastic covers were used in place of tyres which had formerly caused a problem with exposed wires.

### **Judge's Farm – Kennetsideheads**

The farm had been bought by Jimmy's father in 1970 – 120ha; a further 112ha was added in 1980. Initially, there were 100 cows and a few sheep. Total area was now 640ha, half-owned, half-rented. Management mostly fell to Jimmy's son, except 360ha cropping which gave Jimmy a 4-month winter 'holiday'. There were 10 staff. Milk yields and quality had increased since the 80s. All cows were housed all year, being much easier managed. New sheds had been added including one 45m long with completely open sides. The good ventilation had proved far healthier for the cows. In America housed cattle could withstand  $-20^{\circ}\text{C}$  and were quite contented at  $-4^{\circ}$  or  $-5^{\circ}\text{C}$ . Cows were better when they can see outside and the sun shines through – most animals and humans like the light! However, a problem did arise with the open sides on a couple of days when the snow blew in. It was also essential to keep feed stocks tidy to avoid vermin and botulism. Milking was by a Westphalia rotary; dirty water was applied to the fields. He thought there was far too much water going out with the slurry to the fields in the Short Leet farms. A pond had been established on 0.5ha of clay as diversification.

Some recommendations given by the Judge for success in farming businesses were:

- Every January select one subject for detailed study over 4-5 days; consult experts but then not for another 5 years. Make a decision what to buy and from whom.
- Between 6.00am and 6.00pm only speak to people who can help; after 6.00pm one is more relaxed.
- Benchmark against others both locally and nationally.
- Do not worry about things about which one can do nothing.
- Do not fight the system but try to get around it.
- Considering farming as a business – things are changing all the time. Therefore one should enjoy them and try to make some oneself, holding on to own interests.

**CENTRAL SCOTLAND GRASSLAND SOCIETY  
SILAGE COMPETITION 2008**

CSGS Silage Competition Evening at Galloway & McLeod Ltd, King Street,  
Stonehouse on 18 March 2009

*Competition Evening sponsored by **Limagrain UK Ltd***

**Silage Judge: J Warnock, Eastfield of Coulter, Biggar**

Prizes were awarded as follows:

**HF Seeds Cup & 1<sup>st</sup> Prize  
For Dairy Silage:**

W Baillie, Hillhead of Covington, Thankerton,  
Biggar

**2<sup>nd</sup> Prize**

J Baird, Nether Affleck, Lanark

**3<sup>rd</sup> Prize**

T & B Wilson, Bishopbrae, Bathgate

**Hamilton Reco Salver for  
Best Beef & Sheep Silage:**

R McNee, Balmitchell, Armadale

**2<sup>nd</sup> Prize:**

R & M Struthers, Collielaw, Kilncadzow,  
Carluke

**Big Bale Prize:**

R & M Struthers, Collielaw, Kilncadzow,  
Carluke

Following an AGM, prizes for the different classes in the Silage Competition were presented by the Silage Judge, J Warnock. Guest speakers Hugh McClymont and Brian Copestake then gave presentations on the Maize crop and its varieties.

**Hugh McClymont** reviewed progress with the maize crop at Crichton Royal Farm in recent years and referred to plans for further development in the future. The main points from this talk are summarised on p46.

**Brian Copestake, Limagrain UK Ltd** briefly outlined the Limagrain crop breeding organisation and its specialisation with maize varieties. It dealt also with sunflower, rape, peas and cereals, had 6,000 employees and a wide distribution of trial sites. A site 10m below sea level was ideal for testing maize. Hand held recorders were used in the field and grain analyses could be carried out in the field. A selection of the most recently-bred varieties was mentioned.

**CENTRAL SCOTLAND GRASSLAND SOCIETY FARM VISITS 2009**  
**D Harvey, Secretary CSGS**

**24 April 2009, Hillhead of Covington, Thankerton, Biggar** (*Courtesy: W Baillie*)

This was a morning visit to the dairy winner of CSGS's 2008 silage competition. Total area at Hillhead was 160ha, of which 40ha were spring barley, 16ha of winter wheat for alkalage, the remainder in grass. For silage 48ha were cut twice. There were 180 cows, breeding own heifer replacements and retaining bull calves for bull beef. Calves reared in hutches. Milking was 3x daily through a new fast entrance parlour, with an average of 11,000 litres. There were also 20 pedigree Bleu du Maine sheep.

**25 August 2009, Gaindykehead Farm, Airdrie** (*Courtesy: J Brown*). Evening visit to this intensive beef finishing unit. At the time of the visit, total area was 128ha at 100m above sea level. All grass, 58ha for silage, the rest for grazing. Buildings from a former dairy unit were now used to house some 600 beef animals for finishing. Approximately 2000 head were fattened each year on silage and surplus potatoes from a local processing plant. Stores are bought at c.450kg and 40 cattle leave the farm weekly to customers such as Morrisons, Scotbeef and local butchers. A new silage pit and 2.7 million litres slurry store have recently been added. Jim Brown (Snr) was SWSGS silage judge in 2007 and a brief account of the enterprise was included in 'Greensward' No 49, p40.

An enthusiastic group of SWSGS members, including Chairman Hugh McClymont who gave the vote of thanks, attended this farm visit.



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## **DAIRY BREEDING, BEER AND SKY DIVING IN NEW ZEALAND**

**Scott Cowan, East Lanegate, Lochmaben, Lockerbie**

The land of the long white cloud, bathed in sunshine and a relaxed way of life. Why is the UK not like this? Maybe it's because the weather is unpredictable that we're always busy rushing around to counter its effects on our lives. In 2008 I was awarded funding from the South West Scotland Grassland Society towards travelling to Australasia, my adventure beginning in New Zealand.

I touched-down in Auckland September 2008 beginning the next stage of my life having spent the previous five years studying. However, my adventure was to begin with 10 weeks with my left arm stuck up the back-end of a cow! Many people may think it strange to travel all the way around the world to do a similar job to that back home, but this was a great experience for me on a personal and career level. I began working as an AB (Artificial Breeding) technician for LIC (Livestock Improvement Company) in Pukekohe along-side a senior technician, Glen McCall, until my NRR (Non Return Rate) was established.

Glen had been in the job for 21 years so fairly showed me up with his speed, considering I had only inseminated 180 cows in the previous 3 years. Inseminating a cow in 25 seconds seemed a far stretch to reach, but being dropped in the deep end was beginning to pay-off as I was getting closer to Glen in terms of cows per day as time went on. Glen is also a farmer and has four units: one with a sharemilker, one with a contract milker, a drystock and cropping unit and his home farm milking 350 cows. I spent many of my afternoons helping out with stock and tractor work whilst working in the area. Besides AI'ing and working on the farm, I managed to fit in plenty of time to sample the delights of the North Island's greatest produce: 'TUI', the classic beer with a big reputation! I learnt much about the NZ dairy industry through my time with Glen and in speaking to the many farmers; it's a great way to get an inside view. At the time I began, the season's milk payout level was increasing and looked very promising for the year.

When my NRR results came back, these were good and I then moved to my own run of 12 farms near Matamata, where I was based for a further 5 weeks, living with a family on a goat dairy unit, which was very interesting. Milking was clean in comparison with that of cows as you didn't have to duck and dive in the milking shed. In Matamata many herds were synchronising large percentages in an attempt to tighten-up the calving pattern. My busiest day saw me AI 154 cows between 6 and 11.30 in the morning. By the end of my AB season I had served 3001 cows working from 6 – 10.30am in a normal day with a NRR of 72%, and had been on farms with 100 – 1500cows, stud herds and fully commercial herds, seeing many practices and people. The biggest thing I learnt besides being able to serve a cow in under 25 seconds was how much effect management had on the different units. One unit in particular had all the gadgets, great stock and backing but the

management structure was all to pot. Technical performance was poor and the father farmed from his armchair and the son (30's) was left to run the farm with no experience (though he thought he knew it all) and so in cutting his costs had six low paid low skilled members of staff. Needless to say the 1000 cow herd was going backwards.

I spent the next 6 weeks or so travelling around the North Island with my college mate Thomas Ralston. We bought a car and set off to the far North before heading southwards, enjoying activities such as sand boarding, abseiling and SKY DIVING (by far the best experience). Not satisfied with jumping out of a plane at 15,000ft I later took the 134m plunge on the Nevis bungy! We went to the South Island in early December and worked our way to new employment in the Canterbury plains. I worked for Woodley's contracting in Geraldine, as a truck driver hauling grass and wholecrop over distances of up to 60 kilometres. There were many farms growing crops solely for dairy units. Crops in NZ tend to be traded on a dry matter basis and all feed prices are quoted in tonnes dry matter.

After my truck driving experience (which it most definitely was as trucks were lacking in technology to say the least), I toured around the South Island for a week before going to Australia to the International Dairy Week in Greater Shepparton. Here I joined other Scots I had met whilst travelling in NZ and we stayed at the show for most of the week. This is a huge and enjoyable show, focused solely on livestock and with only a handful of trade stands. The cows came from all over OZ and many New Zealanders travel to see the show and sale.

After the show I travelled across the southern coast to Sydney. Driving round OZ you would eventually come across a green patch of grass dependent entirely on irrigation. It was quite apparent from speaking to farmers at the show that water was becoming increasingly scarce to a level that some farms can no longer produce milk. I spent a few more days in NZ before heading home. I made one last tour up through the Islands with a couple stops to visit friends, jump off a few bridges, gorges and a spot of water skiing.

When I left, the dairy industry wasn't as promising as during the AB season, as the pay-out price had dropped and the recession had kicked into USA and Europe. Several new build dairies converting from sheep and beef units in the South Island had been put on hold due to banks holding back finances even though the infrastructure was in place.

I had a fantastic experience on my travels and many thanks go to the South West Scotland Grassland Society for their generosity. There is no doubt that I will be making the trip over the water in the future, even just to sample the beers once more!

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## SWSGS SPRING FARM VISITS IN AYRSHIRE 2009

G E D Tiley

Visits to **Low Dallars, Hurlford, Kilmarnock** (By Invitation: *Alan & Fiona Kerr*) and **Garryhorn, Maybole** (By Invitation: *Billy Lynch*) on 7 May 2009

Visits sponsored by **Nutriscot Ltd**

For the 2009 Spring farm tour, a large turnout of South West Scotland Grassland Society members visited these two farms with newly constructed dairy units. Both had commenced milking in the previous autumn (2008) and both showed enthusiastic optimism for the future in an era of uncertainty in the dairy industry.

Both farms included fodder beet as an important item in the diet, together with wholecrop wheat. Full usage was being made of the fertiliser value of slurry, backed up by regular soil analyses and nutrient budgeting.

**Low Dallars** is a 160ha unit (72ha owned; 88ha rented) run as part of a family enterprise with brother Brian and parents William & Margaret Kerr at Helenton Mains, Symington. This allowed sharing of machinery and youngstock accommodation.

After calving the calves move to a Volac calf feeder and go to Helenton Mains after weaning, coming back to Low Dallars as youngstock. In the current year the cows had already been out but owing to fickle (wet and cold) weather had come back in to avoid poaching.

In the development of the farm a new cubicle shed had been erected. Provision was made for a high air space and ample feed lines to cater for the possibility of the cows spending more and more time inside. There was a new Westphalia 20/20 parlour which had proved excellent, but did not include the added expense of feeders. Rubber mats in the parlour helped drainage and were warmer to walk on than concrete in winter. A novel feature was the Green Oak cluster flushing system which could be fitted to any parlour unit. This provided a surge of weak acid to the teat cups preventing cow to cow infection and had significantly reduced cell counts since the winter. Slurry was stored beneath the slats and distributed through the farm's own umbilical system, though injection may be tried later.

Rations were compounded by SAC Dairy Select with high input (Maintenance +35l) aiming for high output, 9000 litres at the time of the visit. Fodder beet or beet pulp, wholecrop wheat and grass silage formed the feed basis fed by Keenan feeder. Maize had been tried but was no better than spring wheat and could cost more.

Cropping in 2009 was 60ha first cut silage, 7ha fodder beet, 25ha spring wheat, 35ha spring barley for crimping, plus grazing paddocks, with stock of around 200 pedigree Holstein cows.

Silage clamps were earth-walled with an asphalt base. Tracks around the steading had been laid with 23-30cm of clean brick rubble from the old Kilmarnock market. Silage ground receives 18,000 litres slurry in February and 50kg ha<sup>-1</sup> N as 27% CAN in early April, aiming to take first cut on 25 May. Soils are regularly tested. Grazing fields are strip-grazed for 3 milkings, followed by dry cows.

### **Garryhorn**

An entirely new and extensive steading complex had been developed on a greenfield site. It had not been possible to upgrade the old steading which stood at the bottom of the hill. The new buildings were designed to house up to 470 cows with cubicle house, parlour and covered silage clamps. The parlour was a 50-point Dairymaster rotary enabling 2 men to complete milking 350 cows in 2 hours, releasing time for attention to the animals. High yielders were kept in to maintain cow fertility; low yielders were turned out to grass. Zero grazing had been used previously but this was labour intensive.

In the future grass would play a major role in cow management. 80ha of the total grass area of 144ha were cut for silage. Grazing grass was based on long term mixtures with high white clover content. Silage mixtures contained high red clover, aiming to reduce N inputs. Three silage cuts were taken aiming for high quality and good DM content, so not cut ultra-early. Most silage was made with a forage wagon which gave a better product if conditions were correct. Docks were sprayed regularly 3 weeks before cutting date. The 2008 third cut had been late and very wet; an additive was always applied to the sward in high volume before cutting to help reduce pH more quickly and to stabilise the silage.

The indoor clamps had high walls and safety rails were necessary. Good clamp management was essential both at loading and at use. Fodder beet (for high energy) was fed at no more than 12kg day<sup>-1</sup> to maintain condition going into winter and prevent loss of fertility. After fodder beet, spring wheat (112ha in 2009) was grown for wholecrop on neighbouring land before returning to grass. Grazing pastures could not be reseeded in 2008 due to poor weather. All crops including silage were precisely costed – considered essential at present for dairy farming. In particular, savings of up to 50% in fertiliser costs were being achieved through the budgeted use of slurry and regular soil tests. A SlurryKat machine with a dribble bar, used in an umbilical system, left space between the dribble pipes, preventing suffocation of the earthworms. Slurry was stored in an underground 10.5 million litre store and sampled for nutrient content each time it was spread.

Breeding of the ideal cow here was contracted out to a specialist Reproductive Management Service (RMS) run by Genus. This involved RMS staff walking the cows weekly and recording conformation scores which allowed the 2 dairymen to concentrate on cow management.

Garryhorn marches with the Carrick Hills Area of Outstanding Natural Beauty. Environmental work on the farm included: all water courses fenced off, conservation headlands and late-cut or unharvested crop areas to encourage wildlife.

The South West Scotland Grassland Society records its grateful thanks to the Kerr family and to Billy Lynch and staff for the hospitality of these two very well-attended farm visits.



**Photo:** Host farmers Alan Kerr (left) and Billy Lynch (right) flank Chairman Hugh McClymont at the Ayrshire Spring Farm Visit to Garryhorn.



Grass growth on the grazing fields at South Mains is monitored regularly using a Rising Plate meter. This enables forward budgeting and more efficient utilisation of the grazing resource.

## SAC GRASSLAND DEVELOPMENT FARM PROJECT

### Rhidian Jones, SAC Beef & Sheep Specialist, Crichton Royal Farm, Dumfries

SAC have commenced a project, sponsored by QMS to help beef and sheep farmers make better use of grass and forage.

#### Objectives of the project

- To improve the utilisation of grass in beef & lamb production systems
- To reduce the costs of growing & finishing livestock
- To impart knowledge to a wide range of stakeholders
- To communicate advances in grass breeding & management

Two “Grassland Development Farms” have been established: South Mains, Sanquhar (*Douglas & Lorna Greenshields*) in the south west, and Hilltarvit Mains, Cupar (*Ian Whiteford & Family*) in the east. These farms will provide the focus for the project and will host 3-4 meetings a year. A group of interested farmers will discuss issues relating to grass and forage management on the host farm but also what they do on their own farms. Visits to other practitioners of good grassland and forage management will be arranged for the group and specialists from SAC will visit each farm regularly during the grazing season to monitor and advise on grass and forage as the season progresses.

#### The farms

South Mains is a 640ha upland farm in Nithsdale, with 240 ha of rough grazing, the remainder being permanent pasture. Stocking comprises 600 Blackface ewes along with a flock of 700 home bred Mules which are all put to Terminal Sire rams. There are also 190 Stabiliser suckler cows, spring calving and producing breeding heifers and store cattle.

Hilltarvit Mains is a 560ha mixed farm just South of Cupar, including around 400ha of arable crops in addition to the 160ha of grass. Stocking is 100 autumn calving Simmental X Angus cows producing finished cattle at 20 months and 50 spring calving cows producing store cattle. A sheep flock of 500 Mules are put to Suffolk and Texel rams, lambing in March with replacements bought in as gimmers. A clean grazing system has been in operation for 20 years.

There have been 3 meetings held on each farm so far – in summer, autumn and winter. At **South Mains** following an introduction, seasonal stock and grassland issues were discussed, with an emphasis on looking ahead for forward planning. Grass growth is being regularly monitored in order to set up an improved rotational system to get the maximum from grazed grass, for both cattle and sheep. Suckler cow management based on condition scores, grass reseeding and integration of cattle and sheep grazing were discussed in the autumn.

The late winter meeting centred on the optimum dates for spring turnout, which became delayed due to the long winter. Separation of the housed cows for feeding according to condition score had proved of great benefit. The importance of and methods of establishing white clover in the reseeds were discussed.

**Contact Details**

**South Mains, Sanquhar, Dumfriesshire**

**Facilitator** Rhidian Jones, SAC 07919 691 841  
[Rhidian.Jones@sac.co.uk](mailto:Rhidian.Jones@sac.co.uk)

**Host farmer** Doug Greenshields 01659 50362

**FBS Dumfries** [FBSDumfries@sac.co.uk](mailto:FBSDumfries@sac.co.uk) 01387 261 172

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**SWSGS SUMMER FARM VISIT 2009 – DUMFRIES**  
**G E D Tiley**

Visit to **Nether Keir**, Auldgirith, Dumfries  
On 24 September 2009

(By Invitation: *Brian Harvey & Family*)

Visit sponsored by **Mathers (De Laval), Dumfries**

Due to inclement (ie: very wet!) conditions the 2009 ‘Summer’ visit had been delayed until there was a degree of mellowing of the weather. A large and interested group enjoyed a morning visit to see new developments at Nether Keir, especially the newly installed robotic milkers. Brian was SWSGS Silage Champion in 2007 and Biotol Wholecrop prizewinner in 2008. He recorded the second highest milk yields in Scotland in 2007.

Purchased in 2006, the farm ran to 132ha plus 18ha woodland. Cropping was 40ha grass cut twice for silage, 20ha spring wheat for wholecrop, plus a further 20ha standing wholecrop bought-in from a neighbour. Stock numbers were 100 Holstein cows, aiming for 120, plus followers; there were 100 pedigree Charollais, Texel and cross ewes, together with 300 sheep taken in for grazing all year. Average milk yield was 11,500 litres.

When Brian’s father retired in 2006, there were three possible options for change from the then 3x daily milkings: a) employ a dairyman, but no house was available; b) give up dairying and rear sheep – this was not favoured; c) install robotic milkers. It was felt that for the future investment was necessary to avoid falling behind and two DeLaval robotic units were installed, with a capacity of 60 cows each.

The conventional cubicle building had been fitted with a system of gates allowing controlled one-way passage of the cows, which were housed all year. The cows readily adapted and there appeared to be a health advantage to indoor management. Also there was less wastage of grass in the field from fouling, poaching and animals lying down. The shed had been opened up to allow more ventilation ; additional cubicles were being added and an extension built for dry cows with straw bedding, to give plenty of space for calving.

A new slurry store would be built below the steading to give storage for 8 months, to meet NVZ requirements. Slurry would then all be applied in February by contractor umbilical. Soil P and K had remained high for 3 years and only straight N was applied.

The cows were fed a straw-based diet, including high quality silage of 11.0 ME and wholecrop barley. Feeding was regular and kept to the same mixture every day.

Silage was mainly contractor-made; being cut on one day, spread out the next and then harvested. The clamps were sheeted with green polythene weighted down by tyres, not gravel bags as these slipped off the slopes. The aim was to have no effluent and the clamps had good asphalt floors. High-sugar mid- and late-ryegrasses were grown. Hybrid ryegrasses, with similar qualities but higher yields, were being tried. Stubble turnips or rape/kale hybrid for feeding lambs were established after 2<sup>nd</sup> cut silage treated with pre-harvest glyphosate, followed by wheat which was undersown, taking care not to undersow too early to avoid excessive grass in the cereal.

SWSGS wishes to thank the Harvey family for this visit, Mathers for support and Green Tea House, Moniaive for providing soup and roll lunch.

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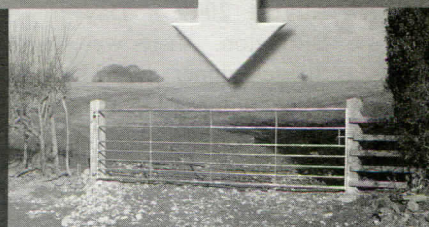
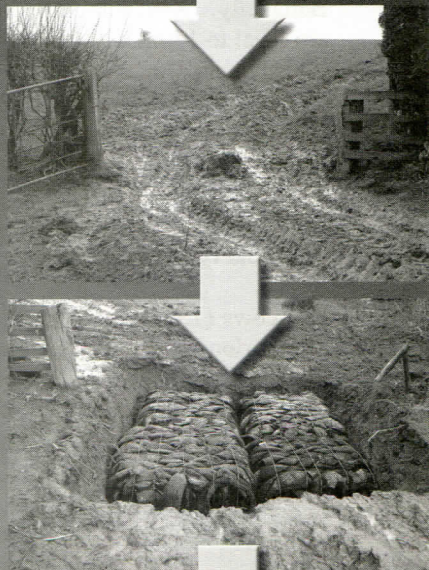
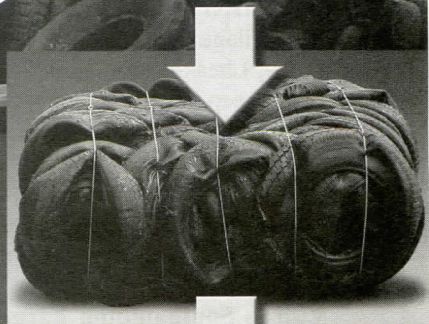
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**NOTES FROM THE ISLE OF MAN 2009**  
**Chris Kneale, Secretary, Manx Grassland Society**

Chris has taken over as Secretary from Caroline Perry, Manx Grassland Society Secretary for many years, following John Harris.

**January 2009 – Annual Dinner and 2008 Prize Presentations** at the Max, Onchan. Silage Judge was Ian Griffiths, H J Lhea Oakes. Edgar and Barry Cowin, Ballaterson Moar Farm, Ballaugh won the silage competition and also prizes for Best Silage utilisation and best Wholecrop. Second silage prize went to John Caley, Lheakerrow. Best Grassland Management prize – Geoff and Eric Taggart. Beef/sheep grassland management prize – Angie Goody. Angie went on to win the Northern Regional competition and was a runner-up in the BGS UK Grassland Management Competition.

**4 March 2009 - Visit to Gellings Eggs**, a family business with 6000 free range hens producing eggs for the Island supermarkets and other outlets.

Visit to **Southampton Farm**, farmed together with Ballashamrock, The Lhergy, Ballakelly. Area totals some 140ha, including local rented land, extending from sea level to 130m, and including steeply sloping terrain. Soil varies from sand and gravel to clay.

Cropping in 2008 was 30ha spring barley, for crimping and storage in Ag-bags, and 10ha lupins. Kale, triticale and spring wheat are also grown. Three cuts of silage are taken from Red Clover – Hybrid ryegrass mixtures, some stored in Ag-bags but most in big bales. Grazing leys include timothy, white clover and tetraploid ryegrass to enhance palatability and drought tolerance.

The cows (150) were housed in August in 2008, with mattresses in the building. The parlour and bulk tank have automated sterilisation. Slurry is separated and liquid stored in a 2.2 million litre above ground storage tank, from which yard and passages are cleared by automatic flushing. Liquid slurry is spread by umbilical, solids ploughed into the stubble fields. Separation of the solids reduces odour when spreading the liquid. Concentrate mix fed by mixer wagon to calves and youngstock, is only half the cost of proprietary nuts. The red clover leys are excellent for fattening store lambs.

**August 2009 – Day trip to Whitehaven**, organised by Ian Powley, Carrs Billington. Visits were made to 3 farms: Bushby's dairy farm, Ian Foster, 2008 Silage winner and Martin Morsin's beef/sheep unit. Lunch at Cockermouth Auction; tea at Lakeland Sheep & Wool Centre.

**October 2009** – Summer Farm Walk to **Lamb Fell, Cronk y Voddy** (*Trevor & Anna Quirk*). Three areas totalling 176ha – Lambfell 100ha, Corvally 68ha, Ballaquine 8ha. All grass except 8ha turnips.

560 ewes lamb outside from late March, currently 1.8 lambs per ewe. Texel, Suffolk and Charollais rams used. There were 115 sucklers put to Limousin and Charolais, with a Red Angus for heifers. Spring calving with calves weaned and housed November at Corvally. Cows outwintered as long as conditions permit then housed and fed hay and minerals. All progeny finished on grass and barley or *ad lib* barley if housed. Grass reseeds follow turnips and sacrifice areas.

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**CATERING FOR HORSES TODAY**  
**BGS Horse Group Workshop, 22 April 2009**  
**Kara Craig, FBS Ayr**

Cirencester Agricultural College was the venue for the BGS annual equine forum in April 2009. A range of informative talks were held in the morning covering building and planning regulations through grassland management to horse care, health and feeding.

Grass management for horses is similar to that of other farm livestock. Maintaining soil fertility and grass sward management was discussed by Heather McCalman (IBERS). With a grass growth curve where there is too little in the winter and too much in the summer, it is important to set objectives for the land. Stocking rates should be considered as well as fencing off areas to make hay/haylage ensuring that the land is not overstocked causing poaching and that all grass is properly utilised when growth exceeds demand. Choice of grass mixtures to suit requirement should be part of the land management as hay/haylage mixtures are very different from grazing mixtures. Focusing grazing swards on species such as timothy and red fescue and staying away from ryegrasses is desirable for most horses. Keeping sward heights between 4-7cm will avoid weedy gappy swards or dead grass and patchy grazing. Management with sheep and/or topping was advised. Management of swards is also vital for horse health. Almost all horse worm infestations can be related to the pasture. Mixed grazing, picking up droppings, harrowing in hot weather, maintaining good sward heights, and good worm control programmes should all be considered to reduce horse worm burden.

Nutrition advice (Annette Longland and Clare McLeod) on the day explained how it was important to keep horses trim and not fat with a main proportion of the diet being fibre based. Horse digestive tracts are geared up for fibre only which not only maintains a healthy gut but will help to maintain horse sanity. Behavioural problems and health issues are more often than not related to feeding and pasture management. Laminitis prone horses require restricted grass intakes or forage that has a low sugar content (which can be dictated by the time of day when grazing is offered and by analysing hay for sugar content). A forage diet with supplementary vitamins/minerals will provide ideal nutrition to maintain condition for most horses except those at competition level. All shortfalls (based on workload) can be built up through concentrates.

An afternoon visit to Estcourt Estate provided a fantastic backup to the morning session. Situated near Tetbury in Gloucestershire the 800ha estate is owned by Juddmonte Farms Ltd, and is the home of the Juddmonte Thoroughbred Stud, with a full time farm manager and agronomist. Restoration of the estate has focused on enhancing parkland and conservation while also creating a manageable layout and grassland for livestock. Sheep graze the land all year round and 400 head of cattle

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## LOOKING AHEAD FOR SILAGE FERTILISER

Elaine Jewkes, Grassland Specialist, GrowHow UK Ltd

Coming into May, thoughts turn to finding an appropriate window for taking first cut and the management that will follow. Deciding on when to cut is always a trade-off between yield and quality, but never more so than in a late spring such as we have seen this year. Winter took a long time to leave us, even making a return in some places north of the border, meaning that grass growth has been slow to start and has faltered in some places as temperatures fell again. However, it's important to look forward as well as back when deciding on a cutting date, as a more mature, lower D-value sward will have a considerably slower regrowth than a leafier sward. In a later spring, the balance between yield and quality becomes more important. Waiting for the plant to bulk up may result in a slower-growing, open sward, which isn't good whether you want a turnaround for grazing or a timely second cut. Though the costs of silaging mean it is sensible to get a reasonable-size crop, it can be better to go slightly earlier to get a higher D-value, slightly lower yielding crop, but a better regrowth. There is one caveat to this approach though – be careful to allow sufficient time for the nitrogen applied to be utilised. A rule of thumb is 2.5kg N ha<sup>-1</sup> per day (2 units/day) – so if you have applied 100kg N ha<sup>-1</sup> (80 units/ac), there should be at least 40 days between application and cutting. Second cut is the ideal time to apply sulphur (S). Response to S can be seen at 1<sup>st</sup> cut but 2<sup>nd</sup> and 3<sup>rd</sup> cuts are where it is seen more consistently. It is well publicised that deposition of S from the atmosphere has decreased greatly over recent years, meaning that on sites where a deficiency was measurable, adding fertiliser S, particularly in high-offtake situations such as cutting, is vital to get the best crop. However, trial work carried out for GrowHow last year showed that, even on a site which did not appear to be deficient in S, both a yield and quality response to S was seen at 2<sup>nd</sup> and 3<sup>rd</sup> cuts. Where the recommended level of 38kg ha<sup>-1</sup> SO<sub>3</sub> was added per cut, a DM yield increase of 13% was seen across the two cuts, along with a rise in sugar levels. The benefit of a yield increase is obvious, but higher sugar levels in grass can result in higher DM intakes by the animal and better protein utilisation in the rumen, meaning that more N goes in to the product – milk or meat – and less is excreted, resulting in a cost benefit of more milk or meat from grass or a reduced S need for supplementary feed. Don't forget the P and K either – if you use slurry to supply some of the plant's needs, make sure you account for the nutrients applied when topping up with fertiliser. But leave a few days between applications if using both slurry and fertiliser – adding them close together creates the ideal conditions for denitrification (losing nitrate from the soil as a gas) to occur – a loss of resource for you and not good for the environment either.

GrowHow have a number of products ideal for aftercut, such as KayNitro Sulphur, or NK Sulphur where the potash requirement is smaller and MultiCut Sulphur where both P and K are needed. For grazing into the summer, SingleTop provides a gentle boost of S for pasture. We've known S was useful for some time, but the question is now – can you afford not to use it?



# Secure Covers

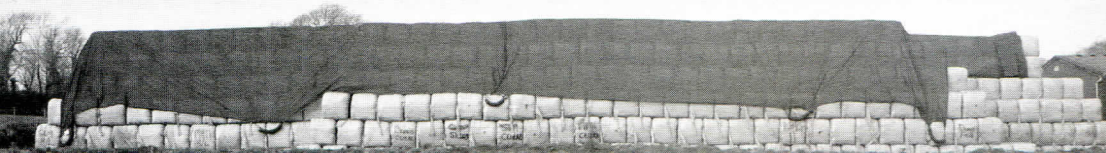
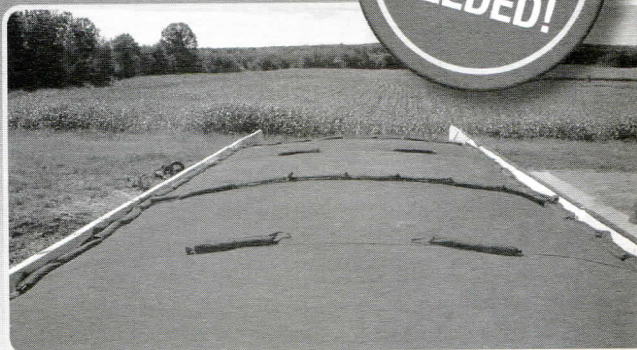
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## STOP WASTING BIG BALE SILAGE

Gerard Thomas, Thomas & Fontaine Ltd, Craven Arms, Shropshire

Baled silage is a popular, flexible option for many farmers. However, it is not a cheap option with its associated costs of mowing, baling, wrapping, stacking and plastic disposal. To maximise the full potential of your investment in the forage, all bales should be wrapped and stored efficiently and effectively.

However, whether wrapped in 4, 6 or even 8 layers of plastic the bales will still be at risk to damage from birds (see p45) or even farm cats if left stacked but unprotected. Protecting the silage wrap from damage is vital when you consider that typically more than half of the silage in a bale is within 20cm (8 inches) of the surface. Air penetration into the silage through holes in the wrap allows growth of yeasts, moulds and spoilage bacteria which results in loss of DM and nutrients and an accumulation of pathogens and mycotoxins. A single hole of only 1-3mm diameter can result in **8% loss of edible forage** in a 30% DM grass silage. With only 6 holes 26% of the silage surface can be covered in mould. The problem is magnified even more with higher dry matter forages where there can be losses of up to 32% from only 1 hole.

To prevent these losses protecting big bales during storage should be a priority. However, with 63% of big bale stacks showing some sort of bird damage and 29% of bale stacks on yards with cat damage it seems that up till now this problem has largely been ignored. A simple solution is now available. Secure Covers, originally developed to replace tyres on clamp silage, placed over big bale stacks will prevent bird and cat damage. The long lasting covers are made from knitted polyethylene which, unlike the open structure of traditional bird netting, produces a very strong cover which prevents birds and cats damaging the silage wrap. The Secure Covers can be held in place with gravel bags attached to the cover using StackPack clips every 5m.

Richard Anthony of Tythegston Farm, Bridgend, Mid Glamorgan, winner of this year's Federation of Welsh Grassland Societies Big Bale Silage Competition, was praised by the judges for using Secure Covers to protect his big bale silage from bird and animal damage. Richard considers using Secure Covers as 'something I should have done years ago'. To find out more about protecting silage either in clamps or in big bales, contact Thomas & Fontaine Ltd.

## **SWSGS PRIZES 2009**

The **SWSGS Vice President's Prize** for the Best Grassland Student in 1<sup>st</sup> year Agriculture course at Auchincruive was awarded to **Steffie G R Hill** from Lochwinnoch, Ayrshire. The award was presented by SAC Principal, Bill McKelvey at the annual Student Awards Ceremony held at Oswald Hall, Auchincruive in November 2009. Steffie greatly enjoyed the 1<sup>st</sup> year of her course – see below. The Society congratulates her on this award and expresses Best Wishes for the future.

The **Malcolm Castle Memorial Prize** for the best dissertation on a livestock-orientated subject within all SAC campuses was awarded to **Ricky Marwick** from Roasay, Orkney. Ricky completed his BSc (Hons) at Aberdeen in 2009 and did a project on bird damage to big bales (see page 45). Ricky was presented with the Malcolm Castle Trophy at the July awards ceremony in Glasgow 2009, plus a cash award. He is now working as a Trainee Advisor at the SAC FBS Office in Inverness. The Society records congratulations to Ricky and wishes him well in the future.

### **THE POTENTIAL AND IMPORTANCE OF GRASS** **Steffie G R Hill, Agriculture Student, SAC Auchincruive**

I came to Auchincruive just to take a year out, to do something I enjoyed (working with animals) until I had decided on my career path. However, once I was there and got stuck into my course, the job opportunities available with this qualification suddenly became apparent. Lecturers and fellow students have really helped me realise the sheer potential of doing something I love so much! The subjects enjoyed most in my first year would have to be the grass and fodder modules. I thought it was really important to learn and understand alternatives for feeding such as deferred grazing because of the high costs of feed and housing. For these reasons I feel it is very important that colleges emphasise the importance of grassland management in today's farming.

## **AN INVESTIGATION OF BIRD DAMAGE TO WRAPPED BALES OF SILAGE IN ORKNEY AND FACTORS AFFECTING THE SEVERITY OF DAMAGE**

**Ricky Marwick, Final BSc (Hons) Agriculture, SAC Aberdeen**

Wrapping bales of grass with stretch film is used by many farmers in Orkney to make silage for feeding cattle and sheep. This research estimated that if bales were not repaired after damage (e.g. by using tape or rewrapping) 70 tonnes of silage would be lost as waste in Orkney in 2008 and 750 tonnes would be reduced to poor quality from damage to the plastic wrap. The stretch film can be punctured by the claws or beaks of birds, preventing anaerobic fermentation and leading to undesirable fungal and bacterial growth. A field trial confirmed that as the number of holes in the stretch film increases so does the level of waste and the reduction in the silage quality. A postal survey identified that factors such as the time bales are left in the field, wilting time and removing bales from the field before storage may all reduce the incidence of bird damage. However, the use of different colour film (black or light green) or grouping the bales together in the field was found unlikely to reduce damage by birds. Sixty seven percent of farmers reported that a member of the gull family (Herring Gull most likely with Greater Black Backed Gull least likely) to have caused the damage, mirroring other work done (e.g. in Ireland). Other research has suggested that rooks and crows are a major cause of damage. However Orkney has large populations of gulls compared with crows. Although Oystercatchers weren't the major culprit of the damage, this research found that they were responsible for the most severe damage to the bale, in terms of holes per bale. Results on the number of layers of film on a bale in relation to the damage done were found to be inconclusive. However it appeared that an increase in the number of layers of wrap, eg: six, reduced the likelihood that birds would penetrate the stretch film.

## GETTING THE MOST FROM FORAGE MAIZE

### H McClymont, Crichton Royal Farm, Dumfries

Forage maize at the Crichton started with 8ha in 1993. The area in 2009 had expanded to 68ha and there had been no major failures so far. The results obtained have varied from season to season mainly as a result of climatic fluctuations from year to year. Encouraging performance led to trying grain maize in 2005 and 2006.

Some points noted:

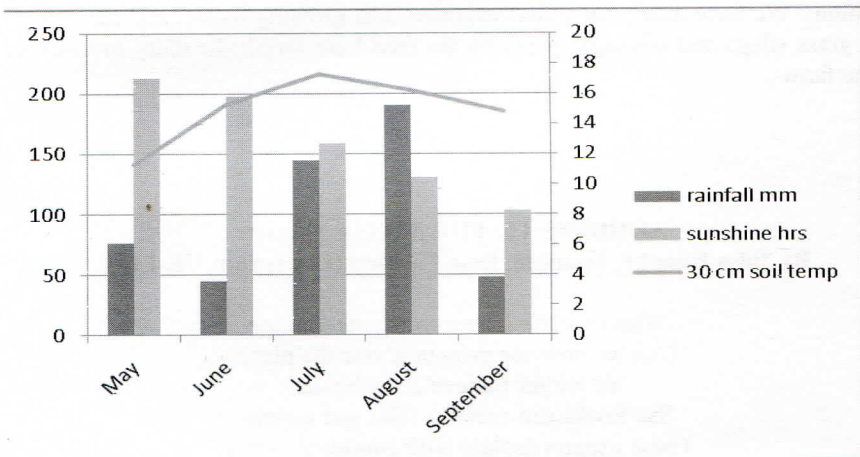
- Use of plastic (polythene) film soil covering spreads the risk (from climate) and gives a harvest window. Planting early with plastic gives a forward harvest which allows time to establish grass in autumn. A pin hole plastic is used (cost £212 ha<sup>-1</sup>)
- Can be problems of degradability and of herbicide action with plastic.
- Later sown maize can follow 1<sup>st</sup> cut grass silage.
- Subsoiling and application of placed ammonium phosphate (starter fertiliser) helps establishment.
- Avall gives a yield benefit. Calaris herbicide has been successful.
- Slurry can be dribbled between the rows of the growing crop, or can be injected during field preparation.
- Establishment costs with plastic can amount to £1035 ha<sup>-1</sup> but the crop is cost effective.
- When harvesting, consolidate well during filling; apply Supersalt on the clamp before sheeting; clamp is covered with 'Clampfill', black polythene weighed down with Secure Cover.
- Maize is cost effective to grow, utilises farm nutrients and provides excellent feed for the cows, maintaining high milk yields.
- Must ensure field choice is correct; south-facing, sheltered, deep good soil.
- Sow ultra-early varieties for reliable yields

**FORAGE MAIZE AT CRICHTON ROYAL FARM, 2009**  
**Jennifer Flockhart & Hugh McClymont, Crichton Royal Farm, Dumfries**

The total area of forage maize sown was 68.1ha, including 24.8ha on additional rented land on Cairn o' Craigs Farm.

Fresh yields ranged from 39 to 67t ha<sup>-1</sup>, DM yields from 10.4-18.9t ha<sup>-1</sup>. More than 20 varieties were grown. Pride and Nancis were best of the conventionally grown crops, Aurelia best under plastic. DM contents were generally 25-29%, Acclaim, Hawk, Pride and Nancis highest: 34-37% DM; these varieties also with highest starch: 29- over 30%; ME mostly around 9-10.

Rainfall, hours of sunshine and temperature of the soil, at a depth of 30cm, for the growing season are shown in Figure 1. May had the greatest number of sunshine hours but June had the lowest rainfall, over these months. The soil temperature rose from 11°C in May to 17°C in July, before starting to decline.



**Weather at Crichton 2009**

The weather data for the last 3 years' maize growing seasons are compared in Table 2. This shows the monthly average air temperature, total sunshine hours and total rainfall. Highest sunshine hours and lowest rainfall were recorded in 2009 due to a very sunny June. Rainfall in 2009, however, was variable compared to the '07 and '08 seasons, which saw a more constant pattern.

**Table 2.** Weather data for 2007 to 2009 growing seasons, Crichton Royal Farm

Season		2007	2008	2009
June	Sun (hrs)	126	135	198
	Average temp (°C)	18.5	17.0	19
	Rain (mm)	163	114	44
July	Sun (hrs)	165	138	158
	Average temp (°C)	18.5	19.0	19.0
	Rain (mm)	87	87	145
August	Sun (hrs)	140	63	130
	Average temp (°C)	18.0	17.0	18.0
	Rain (mm)	87	126	190
September	Sun (hrs)	107	70	103
	Average temp (°C)	17.0	15.0	17.0
	Rain (mm)	44	92	48

Forage maize is an integral part of the ration for the Langhill herd systems study at Crichton. We have nearly 20 years' experience of growing maize, and this, along with grass silage and alkalage, provides the feed base for all the dairy production on the farm.

### **ADDRESS TO THE MAIZE CROP**

**By John Heaphy, Humbie, East Lothian (Limagrain UK Ltd)**

Whit on earth is this crop called maize  
That we now see growin' a' o'er the place  
Ye widna' believe a' the hassle  
Sae fowks can speak o' silks and tassels  
These experts declare with confident surety  
O' things like starch.... and maturity

Tam o' Shanter and Holy Willie  
Wid think it just downright silly  
But these maize growers – ye jist canna frighten  
Old McClymont's noo haudin' classes  
Doon at the Crichton!

*(with apologies to Robert Burns)*

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## **BGS NATIONAL GRASSLAND MANAGEMENT COMPETITION 2009**

Sponsored by **GrowHow** and **DLF Trifolium**

Winner of the 2009 BGS National Grassland Management Competition again came from Wales for the second year in succession. Dylan Tudur Jones farms with his family at Bryn-Rhydd, Ederm, Pwllheli, Gwynedd and is a member of the South Caernarfon Grassland Society. The dairy/sheep farm is 155ha, part-owned and part-tenanted with land varying from drought-prone sand to unimproved wet permanent pasture. To get the best from these contrasting soil types required very careful management and short term decisions. Stock was 160 Holstein cows, 185 youngstock plus 205 Suffolk, Texel and Berrichon sheep, from which breeding sheep are sold. Milk yields average 8,500 litres, 3,000 litres from forage. Grazing distant fields has been made easier by the construction of cow tracks. Wholecrop wheat was undersown with Italian ryegrass, and red clover oversown after harvest. This gave clean autumn grazing and January grazing for ewes and lambs at low stocking rates, leading to March early grazing for the dairy cows. Controlled strip grazing was used until after 1<sup>st</sup> cut silage (15 May) when there was block grazing on numerous small fields. Adequate slurry storage allows spreading for maximum crop benefit. An environmental scheme supported construction of 2 duck ponds and grazing of wetland for breeding birds.

Runner-up was Angie Goodie from Isle of Man who has upgraded an 80ha coastal farm to a productive beef/sheep unit, aiming to be as self-sufficient as possible. Spring barley was grown for grain and straw; also peas and red and white clover. The 47 sucklers were outwintered. Peter Merson's dairy unit in south east Ulster was also a runner-up, with closely budgeted grazing on well-managed permanent swards.

## **SUCCESSFUL GRASSLAND FARMING WITHIN THE NITRATES DIRECTIVE**

**BGS Summer Meeting in Northern Ireland, 28 June – 1 July 2009  
W Welsh & G E D Tiley**

The Ulster Grassland Society and Fermanagh Grassland Club were hosts for the British Grassland Society's 2009 Summer Visit. The theme of the meeting and the farm visits highlighted how the fertiliser value of farm manures was being maximised, with benefits in cost savings and to the environment. The Nitrates Directive Action Programme aimed to improve nutrient use on farms and thus improve water quality in Northern Ireland. The Action Programme required a minimum of 22 weeks' storage for manures, and a closed period from 15 October – 31 January for spreading organic manures. £200 million had been invested, including £120m in grant aid, toward manure storage and associated works.

1.02m of the 1.35m ha land in Northern Ireland is farmland and agriculture is a key industry, accounting for 3.2% of Gross Annual value, higher than the 2.5% of UK. Two-thirds of farm output is exported and 54,000 people (7% of total workforce) are employed in the agri-food industry.

Land quality and climate dictate that grassland dominates the land area with only 4.5% under crops. Forage maize area has increased from 540ha in 2000 to 3,500ha in 2008. 70% of the farmed area is LFA. Farms are mostly owner occupied and family run, but seasonal summer lets are common.

Milk production has increased by 45% from 1984 to 2008 and accounts for 35% of gross NI agricultural output. However numbers of dairy units have declined significantly though cow numbers per farm have increased and total number of dairy cows remains at c. 300,000. Beef and sheep numbers have decreased (258,000 suckler cows, 935,000 ewes in 2008) and numbers per farm are small.

### **Animal, environmental and renewable energy research**

Agri-Food and Biosciences Institute, Hillsborough, Co. Down. The visit to Hillsborough saw a number of research projects: (1) efficient grassland management, involving dairy, beef and sheep genetics; eg: comparing high and low input systems with Holstein x Jersey crosses. (2) reducing the environmental impact of livestock farming. P is the main problem in N.Ireland and application is not permitted unless soils are deficient. A PhD study was measuring P in run off and from leaching using a rainfall simulation. Conditions at turnout could influence amount of P in run off. Another study monitored methane production from a grazing animal. Slurry application by trailing shoe resulted in lower losses into the atmosphere and yielded 0.75t DM increase. Savings of up to 152kg N ha<sup>-1</sup> had been achieved by the use of slurry. (3) A Renewable Energy Centre was opened in January 2009, designed to produce heating and electricity to the

buildings at Hillsborough. An anaerobic digester of slurry from 300 cows was producing 1700 Kwh of energy per day, being 8% of the electricity required. Heating was also derived from a bank of solar panels and from biomass boilers. Willow and *Miscanthus* were grown on the farm. The handling and drying of these plus forest brash was being studied.

### **Profitable dairying with environmental awareness**

Cloverhill, Banbridge, Co. Down (*Frank & Colin Boggs*). A 70ha farm at 135m with 1000mm rainfall on heavy clay soils. 120 spring calving cows, averaging 6,066 litres, 4,621 litres from forage, 650kg concentrates per cow. Hybrid vigour had been bred into the cows using Swedish Red. Paddocks grazed from early March, with regular sward monitoring and rotation lengths from 17-21 days early in the year to 35 days at the end of the season. Wood chips on the paths proved better for the cows' feet. Slurry and NK fertiliser are applied with a strict nutrient management plan. All dirty water and silo run-off were drained through a 1ha reed bed system, which attracted waterfowl. Woodland and hedging had been planted through the Countryside Management Scheme.

### **Quality beef from quality grass-clover swards**

Narrow Water Castle, Co. Down (*Marcus Hall*). The Hall family, connected to the Newry linen Mills, had lived here for over 400 years, first in the keep near the sea inlet then, from 1670, in the estate house. Grass/clover swards were rotationally grazed on this 118ha frost-free farm on the eastern coast near Newry. 90 crossbred sucklers and 40 June calvers were grazed on 6-8 paddocks per group. Grass supply was carefully matched to stock demand by regular monitoring. The first paddocks were closed in October to enable grazing from early February to late November: block grazed for ½ days in wet conditions to avoid poaching. Urea at 28kg N ha<sup>-1</sup> applied February with later applications as necessary, but pig slurry used to reduce fertiliser costs.

### **High performance dairying in high rainfall area**

Brookborough, Aghavea, Co. Fermanagh (*Maurice & Marlene Hurst*). On the second day the first farm visited in the high (1400mm) rainfall (250 rain days per year) area of Fermanagh was on heavy clay at 60-80m altitude. After joining a Farm Nutrient Management Project, slurry nutrient use was maximised and spending on inorganic fertilisers minimised. Total silage fertiliser was 185kg N and 61kg K ha<sup>-1</sup> plus slurry; on grazing ground, slurry once plus 40kg N ha<sup>-1</sup> after each grazing. 75 Holsteins were kept on 70ha yielding 9100 litres (3900 litres from forage), using 2,500kg concentrates per cow.

### **Expanding suckler beef farm**

Florencecourt, Co. Fermanagh (*David Brown & family*). From 40ha in 1992, the area had increased to 65ha, aiming to provide a sustainable family farm income. New sheds and slurry tank had been built since 1992. Maximum use was made of slurry nutrients to reduce fertiliser usage with applications from February to end March. Soils were heavy clay under high rainfall (1420mm), altitude 50-70m, and the farm was in an LFA. Drainage had been necessary to lengthen the grazing season. There were 60 Simmental and Limousin cross cows, two thirds spring calving, with progeny finished at 20 months, together with 30-40 bought-in stores. Store lambs were also purchased. Two cuts of silage were taken in late May and mid-July.

### **Extensification and drainage on heavy wet land**

Lisgoole Abbey Farm, Enniskillen, Co. Fermanagh (*Manager; Denzil Johnston*). An estate farm of 168ha, comprising 128ha grassland, the remainder woodland. Soil was a shallow top soil over a very heavy impermeable clay subsoil, with overlying peat in places. Under a high rainfall (1420mm, as previous farm), grazing management was difficult. A 3-week rotation was practised, but with temporary housing when necessary to avoid poaching. The grazing season could be short (late May-early September). Drainage and reseeding were carried out and red clover was being tried. An ESA agreement involved 21ha woodland, wet woodland and overwintering flooded areas for geese and whooper swans. Stock numbers had been reduced to allow a more extensive system and feeding was based on high quality silage and home-produced cereals. Stock were 50 Continental sucklers with 150 store heifers bought for finishing. The visit saw drainage of a peaty area with 5cm and 15cm piping.

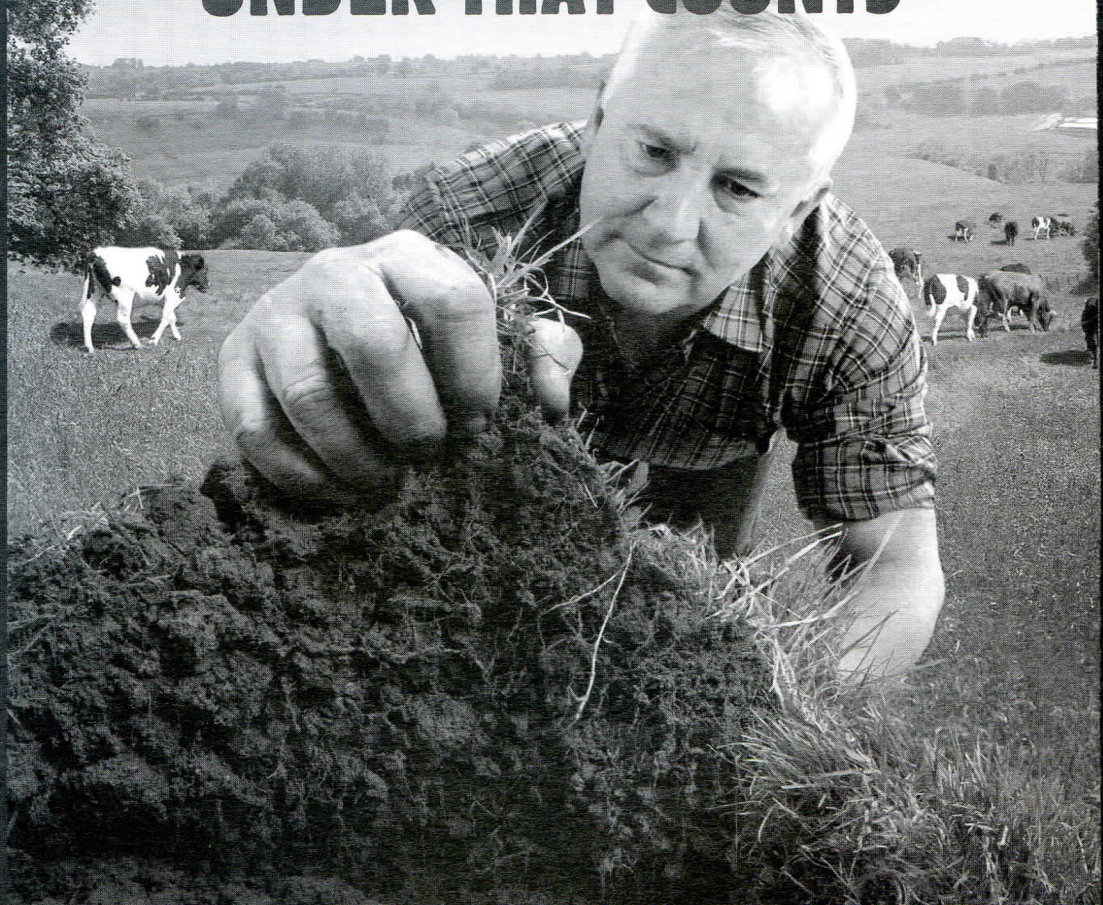
### **Dairy and hill sheep in an Area of Outstanding Natural Beauty**

Dungiven, Co. Londonderry (*Ian & Pamela Buchanan*). After passing 'Ponderosa', the highest pub in Ireland, mist and rain greeted the visitors to this hill dairy and sheep farm (altitude 120-365m). Area 176ha including 70ha in-bye, reclaimed in 1980s, 77ha heather moor, 7ha woodland and 22ha lowground grassland. A further 64ha were rented mainly for 2 cuts of silage. Stock were 95 cows and 850 ewes, mainly Blackface, with Swaledale, Belclare, Texel, Charollais and Suffolk crosses. Highlander cross ewes are put to a Primera to produce lambs for Marks & Spencer. Slurry was injected for maximum use in the dairy grazing and silage fields. The exposed heather moorland on blanket bog was designated as an Area of Outstanding Natural Beauty, much being also a SSSI and SAC (Special Area of Conservation).

### **Quality grass and cereals on alkaline soil below sea level.**

Carse Hall, BallyKelly, Co. Londonderry (*Tom Craig & Family*). The final visit was to the farm of a previous (2005) SWSGS Silage Judge, Tom Craig. The 148ha owned plus 48ha leased was flat land, reclaimed 1848, and lying at or below sea level. The soil was a shallow sandy silt loam, overlying a bed of sea shells which can assist drainage and also maintain a pH of 6.5-7.8. A Shakerator treatment 25cm beneath the grassland lifted the soil, benefiting white clover, removing compaction and giving an extra 5t ha<sup>-1</sup> silage. The 170 Holstein herd averaged nearly 10,000 litres and was fed as much home grown feed as possible. Barley (53ha winter, 48ha spring) was grown mostly for seed. As with many farms in Ulster, new slurry storage had been installed and strict nutrient management followed, with savings on fertiliser (especially P). Lucerne var, Derby has been tried, resulting in higher milk butterfat content, though additive was essential for lucerne silage.

# THISTLE CONTROL IT'S WHAT GOES ON DOWN UNDER THAT COUNTS



Thistles have one of the longest root systems of any weed – so applying a chemical topper such as MCPA isn't going to solve the problem long-term. The best way to kill thistles is to kill their roots and that's what Thistlex does. This season don't ask for MCPA, ask for Thistlex and get the job done.

**THISTLEX**  
GETS TO THE ROOT OF THE PROBLEM

## SCOTTISH GRASSLAND SOCIETIES' BGS SILAGE COMPETITION 2009

**Dr Ron Harkess, OBE, Perth**

This year's four finalists for the British Grassland Society (BGS) Scottish Silage Trophy were: Chapelford, Buckie (North of Scotland Grassland Society), Kirklands, Dunsyre (Central Scotland Grassland Society), Nether Pratis, Leven (East of Scotland Grassland Society) and Townend, Craigie (South West Scotland Grassland Society). All the farms were dairy units with beef production interests and each finalist had won their local Grassland Society silage competition. The event was co-ordinated by the BGS representative in Scotland, currently Andy Best of John Watson Seeds, Castle Douglas, with support from the four local societies via their secretaries and from SAC.

On-farm inspections were delayed this year due mainly to the prolonged winter weather, though on the day, all farm visits were in good weather, in spite of the snow still lying on the roadside to Chapelford. However, all farms had good stocks of silage remaining. Silage quality was particularly good on one unit, but overall, it was down on last year. The finalists scored well on efficient feeding systems and in the handling and use of silage effluent and manures. At the pit, the need for good consolidation and adequate sheeting was practised on all farms and only one unit had not used an additive to aid fermentation. In addition to concentrates, silage was supplemented, on the different units, with straw, alkalage, wholecrop silage, fodder beet and an ethanol production by-product. Points awarded are based on the analysis of the silage (35 points) and on the on-farm inspection and assessment of the system (65 points). The results were: Chapelford 74 (23 + 51); Kirklands 71 (24 + 47); Nether Pratis 70 (22 + 48); Townend 76 (30 + 46).

Congratulations to John Drummond, Townend, who wins the BGS Silver Trophy and to John Shand, Chapelford, the runner-up. Well done too to the Kerrs of Kirklands and the Lyles of Nether Pratis. At this level of competition, each of the entries is worthy of merit and the closeness of the marks indicates just how competitive this year's event has been.

### **THE RON HARKESS SILAGE TROPHY**

This year (2010), for the first time, the runner-up in the Competition will receive an award – The Ron Harkess Silage Trophy, for the achievement of excellence in silage making and utilisation. The trophy has been donated to the BGS and Scottish Grassland Societies by Dr Ron Harkess, to mark his many years' connection with silage in Scotland and his regard for all the farms he has visited while carrying out the duties of judging.

The North, East, Central and South West Scotland Grassland Societies record their most cordial thanks for this very generous gesture and contribution to the Scottish Competition.

  
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**SWSGS SILAGE COMPETITION 2009**  
**Competition Evening of SWSGS, held in Lochside House Hotel,**  
**New Cumnock on 28 January 2010**  
**G E D Tiley**

*Sponsored by **Horizon-Finney-Lock** (per **A F Pickles & Son**), with prizes  
donated by **Biotol Ltd, bpi-agri Ltd, Nickerson (UK) Ltd and John Watson Seeds  
Ltd***

**Silage Judge: Willie Whiteford, Middle Farm, Ruleholme, Brampton**

During a welcome respite from severe wintry conditions of ice and snow, the Society was able to arrange on-farm judging in the 2009 Silage Competition. The results were announced at the New Cumnock venue, Lochside House Hotel. Chairman, Hugh McClymont welcomed the meeting on a damp night and conducted the business of the 48<sup>th</sup> AGM of the Society prior to the Competition Evening proper. After curling on a local reedbed the Chairman was looking forward to a hot summer! He particularly wanted to convey the Society's warm thanks to all host farmers, sponsors and Committee members for their contribution to grassland in South West Scotland during the past year. He also thanked all Short Leet entrants in the Silage Competition.

At the beginning of the meeting, **Rhidian Jones**, SAC Beef Specialist, Crichton Royal Farm, gave a brief, informative outline of the **SAC Grass Development Farm Project** (for beef/sheep enterprises), which had been initiated at **South Mains Farm, Sanquhar** (see p 29).

**Silage Quality 2009 – Chloe Bell, SAC Farm Business Services, Ayr**

Table 1, 2009 Silage Analyses Means confirms the steady trend to improved silage quality over the past decade. There was however a very considerable **range** in qualities of 1<sup>st</sup> cut in 2009, and also a very wide range between cuts. This fact highlighted the importance of **forward planning and preparation well in advance of the silage season**, beginning as early as the previous autumn. Grassland management, nutrient budgeting, machine maintenance and liaison with contractors could all have significant effects on smooth and successful silage making when the time for harvest arrived. This applied to both clamp- and bale-made silage.

A complete list of 2009 short leet farms inspected and winners of prizes is given in Table 2.

**Table 1 - SILAGE COMPETITION 2009 - ANALYSES MEANS**

<b>Overall Means - Grass Silages</b>					
<b>Group (Number)</b>	<b>DM (%)</b>	<b>D (%)</b>	<b>CP (%)</b>	<b>SIP</b>	<b>ME</b>
All Dairy (56)	29.6	69.6	13.9	98.4	11.1
Beef/Sheep (18)	33.2	65.9	11.9	91.8	10.6
Big Bale (7)	40.0	63.1	11.6	94.6	10.1
<b>Dairy</b>					
Ayr (19)	30.1	70.4	14.5	102.1	11.2
Dumfries (11)	27.6	72.2	14.5	96.7	11.6
Kirkcudbright (16)	30.4	67.9	13.4	95.6	10.9
Wigtown (10)	29.7	67.8	12.7	97.6	10.9
<b>Wholecrop and Maize Silages</b>					
<b>Group (Number)</b>	<b>DM (g kg<sup>-1</sup>)</b>	<b>ME</b>	<b>CP (% DM)</b>	<b>Starch (% DM)</b>	
Wholecrop (7)	360	10.0	11.3	-	
Maize (5)	297	11.5	8.8	29.4	



2009 Silage Champion John Drummond (3rd right) receiving the SWSGS Rosebowl from Chairman Hugh McClymont (centre), with Chairman-Elect Wallace Welsh (3rd left), Silage Judge Willie Whiteford (1st right), James Purdie (2nd right), Calum McGinlay (2nd left) and Andrew McFadzean (1st right), representing the main sponsors: Horizon-Finney-Lock. (photo: *Andrew Best*)

**Table 2 – 2009 Silage Competition – Short Leet Entrants**

<i>Prizes</i>		<i>Analyses</i> (35)	<i>Marks</i>	
			<i>Inspection</i> (65)	<i>Total</i> (100)
<b>Dairy Class</b>				
1st & SWSGS Rosebowl	J Drummond, Townend, Craigie, Kilmarnock	30.9	58.0	88.9
2 <sup>nd</sup>	J McNeil, Cairmpat, Lochans, Stranraer	19.9	65.0	84.9
3 <sup>rd</sup>	C McGinlay, Kirkland, Irongray	28.4	55.0	83.4
	J McAuslan, SAC Auchincruive, Ayr	24.1	58.0	82.1
	A McKay, Broughton Mains, Sorbie	18.2	60.0	78.2
Best New Entrant	A Marshall, Hardgrove, Carrutherstown	24.6	52.0	76.6
Michael Milligan Prize	W Purdie, Inglestonford, New Abbey	20.2	53.0	73.2
	H Howie, Wellhouse, Kirkcolm	19.6	53.0	72.6
	A Weir, Gateside, Ayr	24.5	48.0	72.5
	J McGarva, Horseclose, Ruthwell	24.5	44.0	68.5
	I Heuchan, Gerranton, Castle Douglas	17.2	51.0	68.2
<b>Beef/Sheep Class</b>				
1 <sup>st</sup> & BP Trophy	A Nelson, Cogarth, Parton, Castle Douglas	18.5	65.0	83.5
	R & C Dalrymple, Crailoach, Ballantrae	16.2	60.0	76.2
	J McIntosh, Drumflower, Dunragit	17.5	57.0	74.5
<b>Big Bale Class (on analysis)</b>				
1 <sup>st</sup>	Barony College, Parkgate, Dumfries	15.4	-	-
<b>Best Silage in County (on analysis)</b>			<i>Analyses (35)</i>	
Ayrshire	J Drummond, Townend, Craigie, Kilmarnock			30.9
Dumfries	C McGinlay, Kirkland, Irongray			28.4
Kirkcudbright	B Yates, East Logan, Haugh of Urr			25.2
Wigtown	J McNeil, Cairmpat, Lochans, Stranraer			19.9
<b>Best Wholecrop Silage (on analysis)</b>			<i>Marks</i>	
Biotal Prize	C McGinlay, Kirkland, Irongray			47.8%
<b>Best Maize Silage (on analysis)</b>				
Nickerson Prize	A Robertson, Coopon Carse, Palmure, Newton Stewart			80.8%

**Best New Entrant** prize donated by **John Watson Seeds Ltd**

1<sup>st</sup> **Dairy, Beef/Sheep** and **Big Bale** winners also received cash tokens

donated by **bpi-agri Ltd**. The **Best Photograph** prize was won by **Fiona Jamieston, Newfield,**

**Brydekirk, Dumfries**

## **Silage Judge – Willie Whiteford**

In welcoming the Silage Judge, the Chairman thought that Willie Whiteford seemed to know every other farmer in south west Scotland! The Judge worked on the assumption that 'a stranger was a friend he had not yet met'! He felt it a privilege and an honour to 'move among professionals'! He had spent '3 wonderful days' during the judging, with scenic routes, new ground and new people.

The Silage Competition was all about growing and feeding grass and now, in the depths of winter, we should be thinking about how to grow grass. Thinking about the best preparations, and asking questions on soil nutrients, lime, slurry application, use of additives, etc. General comments were that effluent control was all very good, though only one farm was putting it back into feeding.

The winner, J Drummond, Townend, was complimented on forward-looking management of the British Friesian herd and excellent silage. Runner-up, J McNeil, Cairmpat received 100% on-farm judging marks for excellent clamp presentation and tidiness, feeding effluent and healthy contented cows with co-ordinated family management.

Beef/sheep winner, A Nelson, Cogarth, similarly received perfect 100% on-farm judging marks with a simple efficient silage system and feeding for maximum beef output. High marks for clamp management and feeding system were also given to J McIntosh, Drumflower where the Judge was very impressed to see the earliest grazing in Wigtown county on 27 January.

Willie Whiteford thanked the whole short leet for all the information they provided, their enthusiasm for the competition and for their impressive production. He hoped unsuccessful entrants would try again next year.

### **Judge's Farm – Middle Farm, Ruleholme, Brampton**

Willie Whiteford was one of 4 brothers in a family with Scottish roots; their father hailed from Lanark and mother from Minishant, Ayrshire. At present a brother farmed near Dumfries and a sister in New Cumnock. The family had moved from Dumbarton to Brampton in 1947 with a total of 100 livestock – 1 horse and 99 Ayrshires. A dairy was established at Middle Farm, with another 100ha purchased later for youngstock rearing. A breeding programme was developed and Middle Farm built a reputation for the production of improved genetic Ayrshire lines. Traits such as locomotion, milk solid content and milk yields were featured in the selection process.

Willie's motto was: 'Be clear and forthright in the direction one wished to go'.

**WEATHER DATA FOR 2009**  
**SAC AUCHINCRUIVE (55°29'N 4°34'W) Alt 45m**

<i>Month</i>	<b>Mean Air Temp °C</b>		<b>Mean Soil Temp °C</b>	<b>Rainfall</b>		<b>Sunshine</b>
	<i>Max</i>	<i>Min</i>	<i>At 30 cm</i>	<i>Total (mm)</i>	<i>No of Days</i>	<i>Total Hours*</i>
January	7.1	1.6	4.8	89.4	23	40.6
February	7.2	1.8	4.9	15.2	15	45.5
March	10.1	3.6	6.7	63.2	20	108.4
April	13.5	5.6	8.9	17.6	14	141.7
May	15.8	7.1	11.0	50.8	17	195.9
June	18.8	9.6	14.3	56.8	10	211.8
July	19.0	11.8	16.2	68.6	20	161.5
August	18.3	12.0	15.9	119.8	24	115.4
September	16.1	10.4	14.3	49.2	18	109.5
October	14.1	8.0	12.1	92.2	25	55.8
November	10.0	4.6	9.3	211.2	26	43.5
December	4.7	-1.5	5.2	76.2	27	33.6
<b>Means/ Totals</b>	<b>12.9</b>	<b>6.2</b>	<b>10.3</b>	<b>910.2</b>	<b>239</b>	<b>1263.2</b>

Max air temperature: 26.6° on 29 June. Min air temperature: -6.4° on 24 December. Last frost: 29 March 2009. First frost: 8 November 2009.

\* RNAS Prestwick.

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