

Silage quality

- Silage harvesting is normally carried out on the farm in late June / early July as it is difficult to close off ground earlier due to lambing which normally commences mid March. In the past silage swards had tended to develop a lot of stem due to set stocking of these fields. However in 2011 with the use of rotational grazing, swards were managed better to avoid this. The silage analysis from swards harvested in 2011 show a marked increase in quality compared to years 2009 and 2010. Table 1 shows the difference in silage quality over all three years.

Unfortunately weather has affected silage quality in all three years with low dry matters from lack of wilting. As a result, feed quality is being reduced.

Table 1. Comparison of 1st cut silage on the monitor farm from 2009-11.

	2009	2010	2011
Dry Matter (%)	18.0	18.9	19.1
Energy (Mj/Kg DM)	10.5	10.3	12.6
Crude protein (%)	11.0	11.9	11.6
D Value	66	64	72

Table 2 shows the benefit of improving silage quality on the farm, which has been achieved through better grazing management before closing off swards and improved sward compositional quality through reseeding.

Table 2.

Concentrate feed to maintain body weight for breeding ewes (kg/day)						
		Hill bred ewes		Lowland bred ewes		
Weeks to lambing		Singles	Twins	Singles	Twins	Triplets
8 to 6 weeks	2009	0.00	0.08	0.00	0.12	0.19
	2010	0.00	0.03	0.00	0.05	0.11
	2011	0.00	0.00	0.00	0.00	0.16
6 to 4 weeks	2009	0.08	0.02	0.11	0.31	0.42
	2010	0.03	0.17	0.04	0.24	0.35
	2011	0.00	0.04	0.00	0.05	0.16
4 to 2 weeks	2009	0.22	0.42	0.32	0.62	0.77
	2010	0.18	0.38	0.25	0.56	0.71
	2011	0.05	0.26	0.07	0.38	0.53
2 to lambing	2009	0.36	0.61	0.54	0.90	1.10
	2010	0.32	0.57	0.48	0.84	1.04
	2011	0.21	0.46	0.32	0.68	0.88

Reseeding on the Clover Monitor Farm

- Only 45 acres of the 200 acres owned can be reseeded or rejuvenated. The remaining ground is either too steep, or classified as unimproved or species rich grassland which cannot be improved.
- Over the 2 years of the programme, 23 acres have had a full reseed with 2 acres also rejuvenated using a min till.
- 60% of land area which could potentially be reseeded has been done so within five years.
- Reseeding has been in the form of full plough reseed (FR), and min till (MT)
- Min Till involved burning off the sward, power harrowing the field twice and using an Einboch to drill in the seed.
- In both systems the field was rolled after seeding.
- Results from the min till will be best seen in 2012 however in late autumn 2011 seemed much stickier and also seemed to have more weeds than ground subjected to a full reseed.

Table 3. Area of the farm reseeded each year 2010-11.

	2010	2011
Full Reseed	7.5 acres	16.5 acres
Min Till		2 acres
Total	7.5	18.5 acres

Stop 1 – Field 2 (4.5 acres)

- The field was split with 2 acres reseeded using min till and the remainder ploughed and reseeded.
 - pH = 5.8 P = 2 K = 1
- Field was burned off as planned on the 2nd week of August 2011, grazed bare with dry ewes and sown on 25/08/11
- The seed mix used is detailed below.
 - 3kg Aberdart – Intermediate ryegrass (diploid)
 - 3kg Aberdite – Late ryegrass (tetraploid)
 - 2kg Abermagic – Intermediate ryegrass (diploid)
 - 2kg Aberavon – Late ryegrass (diploid)
 - 1kg Aberdai white clover – (medium leaved)
 - 1kg Aberace – (small leaved)

Stock Performance

- Lambs are sold either finished, sold as stores or sold privately as replacements
- Liveweight gains are detailed below.

Lamb Liveweight gain

Lamb LWT gain								
207	09/03/2011				5	26/05/2011	35	0.38
207	09/03/2011				5	26/05/2011	33	0.36
200	10/03/2011				5	26/05/2011	34	0.38
200	10/03/2011				5	26/05/2011	33	0.36
265	16/03/2011				5	26/05/2011	32	0.38
265	16/03/2011				5	26/05/2011	30	0.35
225	19/03/2011				5	26/05/2011	32	0.40
225	19/03/2011				5	26/05/2011	30	0.37
308	27/03/2011				5	26/05/2011	30	0.42
308	27/03/2011				5	26/05/2011	29	0.40
275	17/03/2011				5	26/05/2011	31	0.37
267	20/03/2011				5	26/05/2011	32	0.40
								0.38

$$38 / 0.4 = 95 (\sim 3 \text{ months})$$

$$38 / 0.35 = 128 (\sim 3.5 \text{ months})$$

$$38 / 0.3 = 126 (\sim 4 \text{ months})$$

$$38 / 0.25 = 152 (\sim 5 \text{ months})$$

Summary

- Over the two years that the farm has participated in this programme there has been a total of 26 acres reseeded, 2 acres using min till
- Grazing has become more controlled using temporary electric fences and rotational grazing. As a result, daily liveweight gains for both cattle and sheep has been maintained but levels of creep feeding has reduced markedly
- Stock numbers have increased with 328 ewes put to the ram in 2011 compared to 265 in 2010 on the same area of land.
- Fertiliser is only applied when swards are actively growing, therefore getting full value of nutrients applied.
- Lime application has become more prevalent on the farm.
- Reseeding has contributed to an increase in grassland costs for the 2011 year however this will be more than made up for through improved overall performance from grass and grass silage in the coming years.