

Glenkilrie Climate Change Focus Farm meeting



Discussion group meeting held at Glenkilrie, Blacklunans then at Blackwater Hall on Wednesday 14th December 2011 at 11.30 by kind permission of David and Morag Houstoun.

Meeting Theme – Maximising Output from the Sheep Enterprise

The theme for this meeting was to discuss the opportunities available to maximise the output from sheep whilst reducing the costs of production. Peter Lindsay from the SAC Perth office is the Farm Facilitator and acted as chair for the meeting. John Vipond, SAC sheep specialist, was also present at the meeting.

David Houstoun opened the meeting by giving an overview of the sheep production at Glenkilrie. He runs approximately 330 cross ewes and 740 hill ewes as two different flocks. The cross ewes scan at around 200% for the ewes and 150% for the gimmers and the hill ewes around 150%. All of the lambs are sold fat to Scotbeef.

Feed efficiency

The ewes are fed silage from December onwards which then led onto a discussion of the pit at Glenkilrie with John Vipond. After commenting on the clean face of the pit and lack of wastage, which will reduce energy requirements to produce the forage, he went on to explain how forages could be fed efficiently and to give some feeding tips. The group was given a silage analysis for the pit which showed very good quality silage with ME of 11.4 MJ/kgDM, a D value of 71% and a protein content of 13.8%.



Feed efficiency depends on making the best use of low cost, home grown silage but low intake from ring feeders make farmers feed more concentrates than they need, at twice the price/ton DM. Why is this? Modern hard-centred bales are too compacted for sheep to pull out the silage resulting in low intake. Expect crossbred ewes to eat about 1.2 kg/day of silage dry matter when given 180mm ring feed space each (see Table 1 = 24 ewes per feeder). With bales now typically 500 kg and silage dry matter percentage of 35% then this 175kg silage dry matter takes 24 ewes six days to consume. But after three days silage will be going off, resulting in lower intake. In practice many farmers have more ewes per feeder,

but this restricts their intake, and they end up feeding supplementary concentrates at 1.0kg /day when 0.6kg would be enough if the silage was fed to appetite.

Table 1 – Ring feed space and daily consumption

Ring Type (Ritchie)	Diam (mm)	Circ (mm)	Price (£)	Feed places	Days to eat the bale
Feed ring horned sheep	1550	4871	165	24	6
Sheep feed ring	1550	4871	183	24	6
Diagonal bars feed ring	1850	5814	214	26	6

A bale splitter or more ring feeders are solutions; an alternative is to use a bale unroller for outwintered sheep. Big Heston bales that can be fed as flakes in ring feeders, replenishing every three days may be an option.

Higher quality silage and soya bean meal supplementation

By feeding higher quality grass or red clover pit silage of 10.5-11.0 ME/kg.DM in troughs, farmers have the option of replacing concentrates with soya mixed in with the silage or sprinkled on top. Red clover silage has 10% higher intake, a higher protein and mineral content and can be used safely from day 45 of pregnancy. It can be grown without N-fertiliser saving time, cost, oil reserves and associated pollution. All silages fed early in pregnancy can result in overfat ewes, but replacing silage with straw for two days per week can address this problem and makes bedding easier, as hungry ewes soon learn to pull bales apart. Relying on 100g of mineralised soya fed per ewe per day for each lamb carried during the last three weeks of pregnancy will provide the additional undegraded protein needed. This feed is eaten as a supplement and not a substitute for silage and may even increase silage intake. **The cost savings of feeding 200g/day of soya vs. 600g/day of concentrates can be around £250 for 400 ewe flock (based on 2011 prices).** Lambing performance and lamb survival is aided by more vigorous lambs and more colostrums.

Use body reserves to save feed

Put condition on with cheap grazing and save up to 200g/day of supplementary feed in late pregnancy. Check ewe condition now and assess both feed supplies and quality in order to plan feeding supplementation.

- Ewes need to be in good condition at mating i.e. score 2.5 (hill) and 3 (lowland).
- Assess grass supplies – once grass stops growing sheep remove it at a surprising rate – calculate on 6 ewes/acre removing an inch per week. Do not regraze fields left to recover as grazing leaf grown from root reserves in cold weather delays recovery. Also bare fields are more prone to treading damage in wet weather. Complete loss of 100 acre of good lowland winter grazing equates to around 10 – 15 tons of hay.
- Estimate silage quality – have a sample analysed.
- Estimate silage available – check, weigh bales or measure up silage pits.
- Estimate requirements: Daily intake of precision chopped silage fed *ad-lib* pre-lambing will be about 1.4% of liveweight (in dry matter terms) if the ME is 9.5 (poor silage) and 1.6% with good silage of ME 10.5. Budget typically on about 1 kg/day of dry matter or 4 kg fresh at 25% DM for a Mule ewe. For a full winter (housed, no grazing) this comes to half a ton of made silage or 150 kg hay/ewe. When feeding baled silage from a ring feeder intake is 15 – 20% lower.

- Ewes in CS 3 can be allowed to lose 80 g/day of liveweight which releases energy equivalent to feeding 0.2 kg barley/head/day.

Buy concentrates on quality not price – ask for feed ingredients in compounds by percentage and get your nutritionist to accurately ration it out. Do not be afraid to rely heavily on high quality silage – with this a flat rate feeding of 0.5 kg/head/day of mineralised whole barley for the last month will be adequate for ewes with twins if you add 200 g soya/head/day

Pot ale was discussed by the group and it was decided that it was a good, cheap feed but the mess associated with feeding it was a draw back.

The group then moved up to look at some of the hill flock. David mentioned that out of the cross ewes he has 3 yeld ewes and the hill flock he had 10. John Vipond said that yeld figures of up to 2% were acceptable and that over 5% there is likely to be a problem and should be investigated. He mentioned that you should not retain gimmers which are yeld in the first year as it is a heritable property and would reduce the fertility of the flock. These yeld gimmers should be culled.

Breeding from ewe lambs

Whether or not to breed from ewe lambs was questioned. John said that if you were to breed from them to follow this advice.

Depends on meeting target weight at mating of 60% MBS

In addition must not be 10% below contemporaries liveweight at weaning

Must not be overfed after mating, chasing catch up growth as the adolescent ewe directs nutrition to growth not her lambs

Only allow to rear one lamb or her next lambing will be a single

Thus cross-fostering to main flock – high labour

Not for every farm or farmer but increases efficiency 10%

Getting more from your tups

The next topic of discussion was the tups. John suggested that tups should be left out for 21 – 28 days. To get more from your tups he has a few suggestions:

Buying rams with the potential to leave more lambs has just got easier. With rams costing £600, lamb costs are £4/head if he works for two seasons but only £1 if he lives for four years and serves 100 ewes per year. Unfortunately the first example is the most common as rams bought at sales are overfat, the biggest ones making the highest price. Overfeeding concentrates reduces physical fitness, rams get overheated when serving and thus serve fewer ewes. Rams not fed concentrates can serve up to 100 ewes, and are now available at on-farm sales where there is no incentive to overfeed.

At 1 ram:100 ewes rather than 1:40 it is possible to keep 1.5 more ewes/100 mated and produce 3 more lambs. A 3% increase in production goes a long way to meeting GHG targets!

One problem which David Houstoun has is lame ewes caused by footrot which reduced the efficiency of the ewes. It was suggested that the best time to treat with Footvax is prior to tupping. Footrot does not spread below 1°C and will allow ewes to be in good condition when going to the tup. When foot bathing sheep must stand on a dry hard surface for at least half an hour to be effective.

How EID can benefit the sheep industry.

EID and a simple recording package opens new doors. Generally selecting replacements on the basis of raw data as opposed to using Signet recording and BLUP analysis is a waste of

time. But who has the time to match up lambs to ewes at lambing? Also culling ewes on the basis of them producing low weaning weight lambs is not likely to increase total lamb weaned as young replacement ewes have lighter lambs than older ewes.

However our latest research shows productivity is not just dependant on genetics or nutrition alone but the combination of the two as better feeding can switch genes on. Several studies have shown that lambs that are 10% lighter in weight at weaning have lower lifetime production through these effects and will produce 5% fewer lambs at each lambing. So if you are set up with EID, weigh lambs at weaning and within groups weaned as singles or twins (or triplets if you rear them on the ewe), sort out the bottom 10% by weight and deselect them as potential breeding replacements. For a 100 ewe flock producing 4.5 crops per ewe this will give an extra 22 lambs born over the lifetime of the replacements.

Monitor lamb weight at weaning. Do not select for breeding any lambs more than 10% below average weight as they have 5% less lambs at subsequent lambings.

The group then moved down to Blackwater hall for some soup kindly prepared by Morag Houstoun and continued the discussion.

John Vipond then gave a presentation on the sheep production issues and updates. He mentioned that the best way to increase productivity and reduce the GHG emissions is to produce more lambs. This is best done by ensuring ewes are in good condition as tugging through to lambing and increasing lamb survival. This can be achieved by ensuring there is no trace element deficiency, ensure the nutrition is at correct levels and condition scoring ewes. For lamb survival improved lambing ease, high vigour, increased maternal instinct. This can be achieved by selecting tups recorded for these traits.

Peter then wrapped up the meeting by thanking John, David and everyone for coming.

Do you farm and would you like to attend to future meetings?

The meetings provide sensible ideas for the farm business, from invited speakers and other farmers, to improve efficiency whilst reducing the loss of greenhouse gases. It's free to come along and you will be able to influence the topics, speakers and location of future meetings.

Contact Peter Lindsay for details of the next Glenkilrie event at peter.lindsay@sac.co.uk or telephone the SAC Perth office on 01738 636611.

If you want to keep up to speed with what's happening at Glenkilrie but don't want to attend all the meetings, ask to be added to the Glenkilrie email list; you will receive notification of future event and meeting notes.

Visit the website at www.farmingforabetterclimate.org or email a general enquiry to climatechange@sac.co.uk

