

**Peter Cook
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Buchan Monitor Farm

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Report on meeting held on 30th October 2008

Provisional date of next meeting: 10th December 2009

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TOP TIPS FROM MEETING

- 1. Good records (and a weigh crate) have a tremendous impact on identifying weaknesses. Do you know your calf growth rates from birth to weaning?**
- 2. If you are thinking of putting up a shed, talk to your local council and get advice well before you start. There are a lot of legislative requirements – for example did you know that you might need to have a large source of water (for fire fighting) close to the new building?**

Introduction

This was the third meeting of the programme. 45 members attended over the afternoon.

Meeting Aims:

1. Update from Monitor Farm

- Lamb performance (including results of chicory/red clover trial and breeding results)
- Cattle performance (growth rate records, breeding performance)
- Harvest results
- Winter plans

2. Making best use of the steadings

The slatted finishing shed at Acrestrype has an awkward feed pass, all barley is fed from bags, there is little grain storage (only feed barley bin), lot of space required for silage, work spread over two main steadings. The Dicksons wanted to review how best to use the buildings, especially allowing jobs to be done quicker and easier. Where should they make investment, if at all? Malcolm Sharp of SAC Building Design helped with this task and presented key planning issues.

MEETING FEEDBACK

1. Cattle Performance

An ongoing record of performance will be maintained and worked on over the 3-year programme. Figures for 2007 and part of 2008 have been pulled together by the Dicksons (see table 1 below).

These figures raised a number of issues. The 2007 cattle records highlighted a health problem (campylobacter) which reduced the overall calving percentage to 86%. This is below expectations, but perhaps surprisingly is close to the UK average. Heifer and young bull growth rates from birth to weaning are good: this is the most profitable growth stage. Other group members reported good growth rates this summer. The Dicksons also keep track of the growth records for the progeny of different bulls. These showed little difference between the performance of their own Simmental bull

and an AI bull used when one bull went lame. The growth rates of Luining calves (a Luining has been bought to produce cross replacements, for longevity, hardiness, mothering) are lower than the Simmental, but not as much as some expected. It will be interesting to see how they perform in the finishing stage and whether or not their feed efficiency is similar or better. This year calves were creep fed from end July.

The group members were asked what other measures should be added and perhaps the most interesting is “kg of calf produced per annum per kg of cow put to the bull”. This measure is similar to that widely used in the sheep sector and gives an indication of efficiency (how much cow you need to keep to produce kgs of beef). Other measures suggested;

- Calving spread
- Age at weaning and slaughter
- Length of time creep fed
- Losses calving to weaning
- Finished cattle grades

Table 1. Ongoing Cattle Performance Record

	2007	2008	2009	2010
BREEDING				
No. cows to bull	81	76		
No. heifers to bull	17	15		
Scan %	89.8	91.2		
Calving %	85.7			
Average bull weaning weight (kg)	311.55	355.7		
Average heifer weaning weight (kg)	306	328.9		
Average dlwg to weaning – bulls (kg)	1.48	1.42		
Average dlwg to weaning – heifers (kg)	1.27	1.30		
Sim Bull progeny average dlwg to weaning (kg)	Bulls 1.47 Heifers 1.30	Bulls 1.46 Heifers 1.29		
Luining bull progeny average dlwg to weaning (kg)	N/A	Bulls 1.37 Heifers 1.30		
AI Sim bull progeny average dlwg to weaning (kg)	N/A	Bulls 1.45 Heifers 1.35		
FINISHING				
Average finishing weight males kg dwt	321			
Average finishing weight heifers kg dwt	324 (2006 born)			

Dlwg wean to finish males				
Dlwg wean to finish heifers				
Bull 1				
Bull 2				
Bull 3				

Patrick reported on this year’s cattle scanning results:

- Cows; of 76 scanned, 5 are barren
- Heifers; of 15 scanned, 3 are barren

Heifers (just over 2 years old) were with bull 6 to 7 weeks. The smaller heifers are the ones not in-calf. Some group members felt that the bull should have been left in longer, others felt a tight bulling/calving should be the aim and this ensures only the best breeders are retained. The barren heifers will be fattened for sale.

Assisted by Colin Thomson of Harbro the group discussed the feeding of the thinner dry cows which have just been housed, and creep feeding of calves to develop rumen function.

The thinner dry cows are being fed some grassy straw which had been wrapped plus some barley and dark grains, the aim being to grow the cows 0.5kg/day until New Year. After New Year they will move on to an ammonia straw and silage maintenance ration. Minerals with extra Sulphur will be fed. This is essential to lock up Molybdenum which ensures Copper is available to the cow on a straw ration. Colin described how creep feed should develop the papillae in the gut so the calf can digest feeds efficiently. Scratch factor is required to achieve this. Creep feed containing cut cereals, short lucerne (to provide scratch) and yeast (to use up oxygen and provide anaerobic conditions which suit fibre digesting bugs) will help. He proposed very early introduction of creep. (Basis for a trial next year?)

2. Sheep Performance

The sheep record (Table 2) shows the Dicksons very good breeding performance, with a high scanning percentage and low barren rate. The lower hogg scan rate in 2007 was due to a lame tup. The key figure to improve will be the lambing % to weaning: the 25% drop from scanning to weaning is very typical. The other outstanding feature of these numbers is the low concentrate feed requirement for what is a relatively high output flock – only 12kg of concentrate per ewe plus a couple of kg of energy buckets. 50 kg per head of concentrate is often typical. The other area to work on is the proportion of lambs finished off grass by the end of October. The Dicksons have a clean grazing system, so it might be expected that they would finish more off grass. However, they stock very tightly, allowing more crop to be grown and perhaps giving priority to the cows. Also they have the feed grains and scope for forage crops to finish lambs later in the season.

Table 2. Ongoing Sheep Performance Record

	2007	2008	2009	2010
BREEDING				
Scan % ewes	202	194.6		
Scan % hoggs	85	145.2		
Barren % ewes	0.94	0.45		
Barren % hoggs	37.5	16.67		
Lambing % to weaning	164	169.55		
Ewes and hoggs put to tup	252	266	258	
Concentrate feed per ewe (kg)		11.84		
Energy buckets per ewe kg		2.37		
Average weaning weight kg		30.83		
Weaning date	25.07.07	25.07.08		
FINISHING				
% lambs finished by end October		30		
Average sale weight kg dwt		19.32		
Average dlwg weaning to sale				
% U, R and O.		4.4, 85.3, 10.3		
Average price per head £		£52.29		

The group discussed the performance of lambs on a red clover/ chicory mix, compared to that on grazing;

1. Lambs on red clover / chicory (30.07.08), av wt 31kg, up to 30.08.08 gained **179g/day**
2. Lambs on grass aftermath (30.07.08), av wt 25kg, up to 30.08.08 gained **200g/day**
3. Lambs left on summer grazings (30.07.08), av wt 38.56kg, up to 09.08.08 gained **124g/day**

The growth rates on chicory were disappointing – up to 300g/day was expected. Others reported disappointing growth rates through the summer, both on grass and forage crops, which may simply be a result of the weather. The better growth rates on aftermath may simply reflect the smaller/ later lambs having inherently higher growth potential. Lambs were grazed with a back fence to allow regrowth, but this may have kept them too tight.

Other good examples in the group of establishing chicory;

- Chicory with westerwolds and clover, cut for silage, then tremendous growth of both chicory and clover
- Established in set aside, very good take and big crop

3. Buildings Review

Issues;

- Steadings in good order, but mainly old or based around conversions/ additions to traditional stone and slate. Only one new building well suited to mechanisation; centre feed pass cattle building used to house cows and for temporary grain storage
- Slatted shed at Acrestrype which houses feeding bulls and heifers has a narrow pass. Barley is fed from bags twice a day. Silage from a block cutter every two days.
- No silage pit at Camalynes.
- No long term grain storage. Grain tipped in a covered concrete floored area in front of silage pit at Acrestrype, dried there in mobile drier and then gets carted up to North Camalynes into empty cattle court for loading into lorries. Feeding grain stored in 100t tower at Acrestrype.
- All tenanted. Limit on landlord expenditure.
- 3 steadings; Acrestrype and Camalynes main steadings, Birkenhills only for a few cattle or feeding lambs.

Group feedback/ ideas/ options;

- All depends on landlords view and policy. May not want to spend a lot, but perhaps happy for tenant to spend and to have outgoing valuation.
- Build a very simple earth walled silage pit at Acrestrype or Camalynes, and free up the existing covered pit at Acrestrype for longer term grain storage
- Stop growing silage. Use straw based rations for cows, buy draff, switch bull to 100% grain based ration. This frees up the pit for grain storage.
- Graze more at Birkenhills/Acrestrype and grow more crop at Camalynes, hence produce silage closer to site of the pit (but Camalynes heavier and back lying, 0.5t/acre yield disadvantage).
- Get landlord to sell a steading and build a new purpose built shed elsewhere. Even sell a whole site (steading and house) allowing complete relocation to one site
- Build a new shed yourselves (worth the risk?)
- Look at how you can make best use of the SRDP grant, especially building in slurry/ dung control to gain points

- Take more storage at Aberdeen Grain, so don't need own long term grain storage
- Knock out the slats and amalgamate with small court at rear, turning it into a bigger straw bedded space. Put two bunkers at front, one at rear for ad lib feed.
- Mixer wagon or forage box to allow easier feeding and at the same time better mixes.
- Castrate the male calves and sell store, so no need for finishing space and carrying lots of bags of barley all winter. Would need a change in breeding. Backward step in terms of adding value?
- Linked to point above, increase cows and sell weaned calves.
- Look at the whole system first, decide what is profitable, then look at buildings required.

Malcolm Sharp gave his view of the buildings and options.

Key points;

- Existing traditional steadings are in OK condition, but like all of this age, they are nearing the end of their life (slate nails rotting, etc) and will be expensive to maintain and very difficult to use with modern machinery and especially if had a one man system.
- For both Camalynes and Acrestrye there is the option of putting a single span over the U-shaped steading and in-fill court. This creates a single usable space which is flexible, has better ventilation and allows the use of machinery and feeding passes. It also maintains some of the traditional stone frontage.
- A simpler option is to concentrate on new buildings, for example extending the new central feed pass cattle court at Camalynes to hold more stock, or building a new general purpose shed for grain storage at Camalynes.
- The ideal might be a green-field site, but this depends on the landlords view and they need to look at what is feasible rather than ideal.

Malcolm also outlined the ideal design of steadings; livestock loading nearest to the entrance to the farm for biosecurity, feed storage next for easy deliveries without getting near stock, then livestock sheds.

Finally, Malcolm ran through the key planning and building warrant issues to consider when thinking about a new building.

Planning Permission:

This is required in Scotland for all developments i.e. changes of use of land or property. Agricultural use requires either "prior notification" or "full planning" for buildings, roads and works.

Prior notification is required if it is intended to do any of the following;

- Build a farm building under 465m² in floor area
- Alter or extend significantly a farm building
- Build or alter a farm road

Planning permission is always required if any of the following apply;

- Construction, alteration or extension of dwelling
- Building or works not designed for agriculture
- Over 465m² floor area

- Over 12m height
- Over 3m in height within 3km of an airport
- Within 25m of a classified road
- Buildings or works for intensive livestock, slurry or sewage within 400m of a building occupied by people (but not part of the working farm).

Building Warrant:

Agricultural buildings are exempt from building warrant except for;

- Buildings for retail purposes
- Within 10m of a residential property
- Over 280m² in area
- Dungsteeds, slurry stores, effluent tanks

There are specific requirements for fire escapes, safety lighting, signs and a sufficient source of water supply for fire engines.

Overall advice; Consult the local authority FIRST. Get advice.

Date of next meeting: Wednesday 10th December 2008