

Torr climate change focus farm meeting

Farmer discussion group meeting held at Torr on Thursday 10th November 2011 at 10.30.



Meeting theme – Practical measures to optimise livestock productivity

The meeting discussed practical measures that could benefit livestock, improve farm profitability and reduce the farm carbon footprint at Torr.

Alongside Ross and Lee Paton, invited speakers at the meeting were David Keiley, joint Torr Facilitator and SAC Dairy Specialist, and Rhidian Jones, SAC Beef and Sheep Specialist. The meeting was chaired by SAC's Gillian Reid.

Dairy shed

David kicked off the meeting by taking everyone to the dairy cow shed. Ross told the group how many cows he was milking, what his milk yields were, the calving period, cow breed, what ration they were on and when they were last fed. The cows were split into two groups; dry cows and milking cows. David asked the participants to take a more informed look at the two groups and to focus on the condition of the cow, how they were feeding, their dung and to look at their housing.

Cow condition

The group had a discussion on how the cows were looking, it was agreed that a lot of the cows looked different; this was due to the different breeds that were present. The condition of the dry cows was deemed to be variable; the milking cows were clean, content and the majority were feeding. It was agreed that there could be a bit more trough space for all the cows.

The group undertook a condition scoring exercise. The conclusion was that between the high yielding, low yielding and dry cows the condition score did not change greatly – this reflects Ross and his dairyman's good herd management at Torr.

Cow housing

The group discussed cow comfort and the housing. General comments were that cubicles were bedded and comfortable, but could be improved if the cubicles could be open fronted – this would be better for the bigger cows. On a previous visit, the foot trimmer had identified laminitis in the cows feet, this could be due to the cows standing and perching in the cubicles – making the cubicles open fronted would prevent this. Removing the internal walls would also increase the size of the cubicles.

Ventilation within the shed was discussed, it was agreed it could be improved. An open ridge was one of the options suggested.

Additional trough space would benefit the cows and Ross could feed the cows just once a day; adding a lean-to onto the existing shed was discussed.

Ration

It was observed that cud balling was going on (acidosis); however the diet had been changed in the last few weeks to reduce this.

David told the group that there was scope for a few more litres of milk per cow by changing the ration – David and Ross are working on this.

David told the group what the ideal mealtime for a cow should be:

- 7-10 meals/day on TMR
- 45 mins each meal, therefore 6-8 hours/day are spent eating
- Cudding for 8-10 hours/day
- 1-1.5hrs for each cudding session at 50-70 chews per minute; this produces 300 litres of saliva.

David told the group that cow performance at Torr could be increased by improving access to drinking water and increasing trough size.

Digestion

The group looked at a dung sample; it was weighed before and after being put through a sieve. There were wholecrop grains noticed in the sieved dung, the wholecrop had not been put through a corn cracker resulting in the grains passing through the digestive system.

Before lunch the group looked at two rations from the Crichton, one from by-products and the other is all from home grown feed. This is part of the research being done on the Langhill herd at the Crichton.

After lunch Rhidian discussed general efficiency of beef systems and produced an excellent handout which he used to discuss some of the issues with the group. The following text is taken from Rhidians handout:

Improving Efficiency in beef cattle feeding – Rhidian Jones, SAC Beef Specialist.

Feed Supply –

- How much in stock of each feed and what quality (analysis)?

Feed demand-

- How much of each feed is required per day to meet target performance?
- How many animals of each class?
- How many days to feed?

Practical considerations-

- Where is the feed in relation to the stock?
- Can you easily restrict feeding?
- Which feed suits a class of stock best?
- How accurate is your assessment of quantity. A given volume of silage –e.g. if you estimate 1000 tonnes FW at 25%DM. At 20% DM you have **50 tonnes LESS DM** than at 25% and at 30% DM you have **50 tonnes MORE DM**.
- How much does a bale or grab full weigh?
- Height and density of pit
- Storage available for straights/concentrates

Flexibility-

- Use Body condition for suckler cows, 1 unit BCS = 1 ¼ tonnes of silage or 200 kg barley
- Modify performance targets in growing stock
- Find alternative feeds - look at Relative Feed Values

- Sell stock if market conditions favourable, barren cows, stores etc
- Leave stock out for longer if conditions allow
- Forage crops
- Store straw in the dry
- Turn out earlier in spring - start shutting off fields

Feed budget-

- Once feed stocks known then work out a feed budget based on expected stock numbers. Allow 10% extra for waste or extended winters.
- Carry out regular feed budgets through winter- e.g. number of bales, bays left. More accurate measurements are better though based on diets, stock numbers and Dry Matter
- Amend rations as required
- Buying feed in spring can be expensive, cost of feed rises, transport, time,

Suckler cow feeding - Rules of thumb for rationing

- Maintenance = lwt x 0.11 MJ of ME/day
- Milk prod = 5 MJ of ME/litre
- Pregnancy last 8 weeks = 30 MJ of ME/kg loss 15 MJ ME/day
- Weight loss 1 unit BCS = 13% of Lwt, 80 -90 kg
- First calved heifer = gain 0.3 kg/day = 10MJ of ME
- Dry Matter Intake = 2% of lwt

Spring calvers

- Target to lose half a BCS over 120 days (0.3 to 0.4 kg/day)
- 75 MJ of ME/day

Spring calvers - Example rations to provide 75 MJ

	Diet 1	Diet 2	Diet 3	Diet 4
Hay				
Straw	9.8	8.0		6.0
Silage-av			28.0	17.0
Barley	0.9			
Rapemeal	1.2			
Maize gl		3.0		

Autumn calvers

- Calving to end mating-
 - lose 0.25 BCS in 90 days, (0.2 to 0.27 kg/day) 10 lt milk
 - 120 MJ of ME/day
- End mating to turnout-
 - lose 0.5 BCS in 90 d (0.4 to 0.54 kg/day), 7 lt milk
 - 95 MJ of ME/day

Autumn calvers - example rations to provide 120 MJ

	Diet 1	Diet 2	Diet 3	Diet 4
Hay				
Straw			8.5	8.5
Silage- poor		39.0		
Silage - av	44.0			
Barley	0.75	3.5	5.0	
Rapemeal			1.5	
Maize gl				6.5
Wheat DG				

Practical considerations

- How easy is it to restrict silage intake?
- Consider rationing over several days e.g. silage for two days, straw for one day- or straw for early part of winter and silage for late pregnancy (dry spring calvers)
- Long bone deformity issues

Feed planning for stores and finishers

- Changing target performance if feed situation changes, e.g. more intensive diet = less overall feed requirement
- Monitor liveweight gains

Store cattle issues

- Target growth rates- 0.6 to 0.9 kg/day
- DMI 2.3% lwt
- Energy density 10.5 to 11.4 MJ/kg DM, 15 to 16% CP
- Compensatory growth if keeping on for grazing
- High-low pattern of concentrate feeding beneficial esp. in suckler bred calves

Example forage based diets for stores and finishers

Liveweight	350 kg	350 kg	450 kg	450 kg
Growth rate	0.7	0.7	1.0	1.0
Silage	20		24	
Straw		4.5		5
Barley	1.6	3.1	3.5	5.2
Rapeseed meal		0.9		1.2
Soya bean meal	0.1			

Finishing cattle issues

- Target growth rates – 1.2 to 1.5 kg/day
- DMI 2% lwt
- Energy density 12.2 MJ/kg DM, 12 to 14% CP
- Adding more cereals to silage diet becomes counterproductive when concentrates make up 65-70% of DM in diet- (about 7-8 kg/day)
- May even reduce performance and increase acidosis
- Reduces effective ME of silage in diet
- Safer and more effective to build to ad lib conc. and straw as source of roughage
- High maintenance requirements of heavy cattle.
- Low LWG's and heavy cattle = very high total feed costs

Dairy bred stores

- Easy calving bull with good growth potential to 400-600 days to save feed costs
- Calf rearing phase, colostrum, navels, get onto hard feeding
- Better rumen development at earlier age than suckler bred animals
- Growing phase, low cost forage based, higher protein
- Finishing phase, short, sharp phase with increasing energy & starch
- Batch according to sex & liveweight and facilities available
- Feed appropriate diet according to phase of growth
- May be requirement for regular marketing/cash flow
- Market once desired fat class achieved
- Bear in mind reduced FCE as animal gets bigger

Compensatory growth

- Principle that unrestricted high quality feed following a period of restriction will give extra performance
- Works for any diet not just going from housed to grass
- Partly due to higher efficiency of lean growth over fat
- Need a long enough grazing season and good grassland management (e.g. rotational grazing) to ensure full compensation for weight gain not achieved in winter
- 0.6 kg/day in winter optimal to achieve 1.0kg/hd/day at grass

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 future topics, speakers and location of meetings.

The SAC facilitators role at Torr is shared by David Keiley and Gillian Reid. For details of the next Torr event you can contact either David at the SAC Dumfries Office on 01387 261172 or email david.keiley@sac.co.uk or Gillian in the SAC Bush Office on 0131 535 3435 or email Gillian.reid@sac.co.uk

If you want to keep up to speed with what's happening at Torr but don't want to attend all the meetings, ask to be added to the Torr email list; you will receive notification of future events and meeting notes. You can also follow us on Twitter @SACFarm4Climate

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

