



# Profiting from Improved efficiency at Nether Aden

Thursday 9<sup>th</sup> October 2014 by kind permission of David and Nicola Barron

Chairman Alan Bruce (SAC Consulting) opened the meeting by welcoming all delegates and introducing the concept of the Climate Change Focus Farm. He introduced host farmer David Barron who gave an overview of his farm and explained how other farmers can benefit from involvement in the forthcoming programme of meetings and participation in the farmer discussion group.



By way of an introduction to the range of efficiency ideas to be explored at Nether Aden during the three year initiative, visitors spent time interacting with industry experts on four topics: Livestock Health and Weaning; Making Best Use of Nutrients – targeting inputs with GPS; Maximising Grassland Potential – how to get efficient production and use it; and The Beef Industry – a profitable way ahead? Here is a summary of some of the points discussed at the meeting.

## Livestock Health and Weaning

According to Robert Logan, producing 180 kg of weaned calf takes 6t of silage, 5t of water, 9t of straw, 100l of diesel, 9 hours and 2 acres (0.81 ha), as well as building space. Increasing efficiencies throughout the system will give an accumulation of marginal gains thereby reducing both costs and carbon output. Maximising livestock health should be part of this accumulation and will give our weaned calf the best chance.

Robert pointed out that a combination of factors such as dehorning, vaccination, strange rations and damp bedding, can challenge the calf throughout its life therefore we need to start at the beginning with colostrum. It is important that the cow is given around 2 months from weaning the previous calf to get quality and quantity right for the next calf. A flighty calf will grow 20% less than a non-flighty animal and that 70% of flightiness is created by the calf's environment, therefore assessing animal temperament as well as its environment makes commercial and environmental sense and can be part of the accumulation referred to earlier.



Reducing the stress of weaning for the calf (and cow), will be beneficial in terms of putting less pressure on the animals immune system and possibly reducing health issues at this time. Therefore looking at ways to wean gradually rather than suddenly, such as providing better grass and creep feeding the calf in a different field, or

behind an electric fence, will allow the calf to get used to mum not being around. Creep feeding is important for the older calf and using a consistent ration all through will help reduce checks when the animals are brought indoors.

When feeding forage, it is useful to carry out analysis and adjust the ration appropriately e.g. a good quality silage can allow up to 2 kg of barley less to be fed which can amount to a difference of 20 p/kg of liveweight gain.

Using an animals compensatory growth ability can also reduce the quantity and cost of feed however consistently good grass quality, a long growing season and good grassland management is essential. Which along with a ration of not more than 0.6 kg/day in winter will activate compensatory growth after turn-out.



Nether Aden vet, Randal Mathers of Meadows Veterinary Centre, spoke about how stress caused by procedures such as dehorning and vaccination along with mixing with other animals, the type of feed and straw quality can all affect the calf's immunity. Basically if something can affect you, it can also affect your calf. It is a challenge to get it right and the solution is different for almost every farm.

On the subject of worming, Randal would rather livestock were treated once at the right time than twice at the wrong times and pointed out that dosing may be easier to carry out over a couple of days whilst the animals are feeding rather than putting the whole lot through a race. More calves in better health will increase output giving more profit and lower environmental impact per kg of beef produced.

### **Making Best Use of Nutrients – targeting inputs with GPS**

George Duncan gave an overview of his business and the work he has carried out at Nether Aden in recent years. Using a Kubota to carry out GPS sampling allows around 80 acres per day to be sampled depending on weather conditions. Using the Kubota allows consistency in sampling with around 20 samples per hectare (9 per acre) being taken. Samples, analysed by Land Crop, are returned to George in around 7 days.

It is usual to analyse pH, P & K but trace elements can also be included. The resulting data can be used along with e.g. combine data to give more information to the farmer.

David Ross of FRBS Stonehaven, continued by underlining how using GPS soil analysis together with other available data e.g. yield maps would give further benefit and pointed out that using this data is a medium to long term project. He also pointed out that the technology doesn't tell you everything and your knowledge of your own land is a very important part of the equation.



An essential part of the process is reviewing the information that is forthcoming and asking yourself why something is the way it is – is it below trees, on a stony part of the field etc.?

Soil sampling is a starting point to better management of your farm nutrient budget, and can help to lower input costs as well as lower the farms carbon footprint.

## Maximising Grassland Potential – how to get efficient production and use it

If you were offered a livestock feed at £40/t with 12% ME and 25% CP, would you be interested? To Michael Blanche, this is the crop that farmers forgot.

To maximise grassland potential, you first have to know how much grass you get per acre – this can be done by measuring it weekly or fortnightly with software available to enter the details on your farm computer.

Digestibility of a grass leaf varies throughout its lifetime with a leaf being 70% digestible, a soft stalk 60% and a thicker stalk 50%. How you graze your grass is important as with set stocking only 50-60% of grass hits the rumen and with grass growing best between 14 and 21 days after grazing, your grass production will benefit from rotational grazing. Michael explained that if grass is grazed once then livestock are moved on, then 30% more grass will grow making that 150 hectares of grass more like 200 hectares.



If carrying out rotation grazing, and it isn't suitable for every farm, it is important to allow the grass a rest period. In the first half of summer a 20 day rotation is possible increasing to 30 days in the second half. When the cattle are inside, the sheep can be put onto a rotation of 60 days.

Rotational grazing does introduce some extra cost, and a lot of alkathene pipe if on private water, but not necessarily a lot of work once the initial set up is completed. It is time consuming putting up cells (electric fencing blocks) but opening a gate every couple of days is easy and the animals soon learn that the gate being opened means fresh grass and will happily walk through allowing you to check them at the same time.

## The Beef Industry – a profitable way ahead?

Improving animal performance will increase farm efficiency and thus profitability, as well as reducing your farm carbon footprint. Dr Jimmy Hyslop, SAC Consulting beef specialist, outlined how keeping animals with the best feed conversion ratio (FCR) will help to lower the carbon footprint and decrease the time taken for the animal to finish. More calves in better health will increase output giving more profit and lower environmental impact per kg of beef produced.

FCR is better in younger cattle and is also better in bulls vs steers vs heifers. Therefore it is important to get animals finished as soon as possible to take advantage of the increased FCR as keeping them longer increases both the amount of feed required and the carbon produced. Making animals eat all the feed in front of them before replenishment means the animal is eating rations of poorer quality and therefore will take longer to finish than those who always get high quality rations.

Within the suckler cow herd, it is important to manage Body Condition Score effectively to ensure both bull and cow is in optimum condition for the performance being asked of them. Bull soundness and fertility should be checked annually as 30% have a problem.



An increase in efficiency could be achieved by breeding heifers at two, as opposed to three, years of age. For breeding heifers, Jimmy stated that it is essential that heifers are large enough to mate ideally 65% of mature cow weight. For example, an Aberdeen Angus cross Simmental has a mature weight of around 740 kg therefore at 14/15

months of age, the heifer should be around 480/490 kg. It is important that heifers are fed high quality forages.

To help improve herd health and efficiency, using a software package such as [FertBench](#) allows calving data to be input and can show where a problem is, whether this is getting the cow in calf, producing a live calf at birth or a live calf at weaning. On discovering a problem, it is important to carry out whatever testing is necessary to identify the cause.

The Scottish average for the number of calves weaned per female mated is 84% while a target of 95% is achievable. Each 1% improvement in weaning percentage increases the economic sustainability of your suckler herd and reduces greenhouse gas (GHG) emissions.

Choosing the right finishing system for your cattle can increase efficiencies within your system. In USA, the average finishing age of cattle is 14 months whilst in Scotland it is 23 months. Should we be finishing cattle sooner?

To make efficiencies, farmers need to ask themselves: how do I maximise use of my building space & costs, and how do I produce more while making my life easier?

### **Other Business**

Alan thanked all speakers and participants for their input and attending the meeting. David and Nicola were also thanked for being the host farm. David took the opportunity to encourage everyone to take part in future meetings emphasising that the more interaction there was within the group, the more would be gained by all. Many of the issues and concepts brought up during the talks and questions will be discussed in more detail at future meetings over the next three years.

### **Next meeting**

The next meeting will focus on fertility in the beef on Thursday 27<sup>th</sup> November 2014 at Nether Aden. For further details and to confirm your place, contact Alan Bruce on 01888 56333 or email [alan.bruce@sac.co.uk](mailto:alan.bruce@sac.co.uk)

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

With support from specialists from both within SAC Consulting, industry and other farmers, the farmer discussion group will explore a range of practical topics to help to strengthen and develop your farm business. As part of the farmer discussion group and through a series of on-farm meetings and visits you will have the opportunity to:

- Identify key areas to improve farm profits
- Benchmark farm performance; both against national KPI data and within the discussion group
- Exchange ideas within the discussion group; what are others doing that you could benefit from? How are others approaching similar issues?
- Access specialist advice and guidance at the meetings
- Suggest topics for future meetings, visits and guest speakers
- Improve farm efficiency and reduce the farm carbon footprint.

Meetings are free and all farmers are welcome to attend; there will be around 5 meetings or visits each year at times to suit the farming calendar. For more information, contact Alan Bruce on 01888 56333 or email [alan.bruce@sac.co.uk](mailto:alan.bruce@sac.co.uk)



Visit the website at [www.farmingforabetterclimate.org](http://www.farmingforabetterclimate.org)

***Funded by the Scottish Government as part of its Climate Change Advisory Activity***