

Optimising Animal performance; focus on lameness and nutrition

Highland Farming Efficiency Network - HiFEN
Climate Change Focus Farm
Notes from the Discussion Group Meeting held at Auchmore on 30th Nov 2016

This was the twelfth meeting of the HiFEN focus farm discussion group, considering practical and profitable ideas to improve the farm business.

Sheep; common issues with feet

Foot diseases have an impact on productivity of the sheep flock. SRUC's Ann MacLaren discussed a number of these with the group and highlighted when these should also inform the cull policy.

- **Foot-Rot**

A common problem among the group, there was debate regarding whether or not to trim the foot, with the official guidance from the speaker being that doing so may delay healing and spread the infection. Foot bathing was a popular and widely practiced method to prevent and treat foot rot. There is a genetic component to foot-rot and lameness with as much as 20% thought to be heritable.

- **Shelly-Hoof**

The detachment and loss of the hoof wall from the foot; this condition was not a common problem within the group. The causes of this condition are not well understood; it is believed that there are environmental implications with contracting the condition. Unlike the previous condition, guidance was to trim and spray the infected foot. Again it was believed that there was a genetic component to this condition.

- **CODD**

Contagious Ovine Digital Dermatitis, similar but worse than foot-rot. This involves the horn of the hoof rotting and falling away. Again the recommendation for treatment was to foot bath but not trim, which caused some discussion within the group as they argued the merits of removing the infected area with potentially infecting newly exposed tissue. Another consideration was to look at the whether or not cattle are grazing the same area, as there appeared to be a connection between the presence of cattle and the disease in sheep. However a thought from the group was that the disease is more prevalent in lowland flocks and among dairy herds.

- **Toe Granuloma**

Otherwise known as a "strawberry" it is considered a sign of over-trimming by way of removing too much of the hoof wall leaving the foot open to infection.

In addition to these topics, White Line disease, Pedal Joint and Joint Ill were all discussed towards the closing of the presentation. **A key message was not to over trim feet.**

Ann made use of a rotating sheep crate to take the group through a foot inspection. The general consensus was that Stephen and Sheena are well on top of any lameness issues, as there was nothing to find within the group.



Lameness in Cattle

Local vet Graeme Swanson from Conanvet gave a short talk on lameness in cattle. Graeme's talk started with a general statement that **for the most part beef cattle have good feet**. The group then saw a series of slides in Graeme's PowerPoint presentation with topics for further discussion that included;

- Outdoor feeding
- Overfeeding of young stock
- White Line disease
- Slurry and Digital Dermatitis

The talk was followed up by a demonstration and workshop on the treatment of lame cattle and featured the use of a hydraulic cattle crush that rotated the cattle horizontally for increased safety, ease of access and effective treatment. The group observed Graeme as he treated three lame cows on the holding. Graeme was keen to stress to the group that **prevention of lameness was as important as treating it when it occurred** and that generally this meant providing the right environment for the cow whether it is inside or in the field.

The cow chosen for the first demonstration was an 11 year old suckler with a particularly bad back right foot.

During the presentation Graeme used both conventional knives and an electric grinder to file down the horn and sole of the hoof and dig out areas of infection, placing particular emphasis on providing a good flat weight bearing surface for the cow to walk on.

During this time the group, as well as observing the demonstration discussed the use of blocks to lift the foot and provide that flat surface that Graeme was looking for, however the general consensus was that it was difficult to attach to the broad foot of a beef cow and was more appropriate for treatment within a dairy herd.

Key points

- Where possible check each foot when inspecting
- Treat with some form of antibiotics
- Don't let problems persist
- Lameness leads to lower productivity within the herd



Lameness within the flock or herd will impact on profits, reduce your efficiency and can therefore lead to an increase in the farm carbon footprint.

Lameness could lead to:

- A lower lambing/calving percentage
- A lower level of milk production
- Lower fertility
- An increased labour demand and use of antibiotics



Cattle nutrition at Auchmore

Following the foot trimming demonstration, the group moved into a shed of young and calving heifers for a discussion on nutrition led by Harbro's David Mackenzie. The discussion began with a look at what the cattle at Auchmore have in their ration:

- 11kg silage
- 30kg draff
- 4kg straw

Following this David noted 4 things he considers major features in the decision of how and what to feed;

- The availability of home grown feed
- Whether feed is for retained or selling stock
- The decrease in distillery by-products (both a threat and an opportunity) and the changes to rations that that may cause
- The increase in competition from AD and biomass energy in consuming crops



Following this there was a broad conversation regarding feed efficiency and environmental factors that can limit the growth potential of livestock on farms. Fluke was given as a reason that sheep in particular may not be performing well with a good ration.

In addition there were a couple of other things brought up by David that could be concerning, these included a low D Value among feed types generally and a 9000 ton reduction in the available pot ale syrup in 2016. Carrying on from this David placed emphasis on energy as being as important in a diet as protein.

Harnessing the farm's natural capital

As an added bonus, Stephen explained about the recent addition of a hydro scheme to the farm. Stephen and Sheena, with help from brother Donald, are keen to farm efficiently with regards to the livestock on the farm. It was also important for Stephen to make use of the natural capital and potential that both the farm and the land had to offer. Noting that his farm has access to an large source of water coming down the burn, Stephen 'took the plunge' and put in place his impressive hydro scheme.

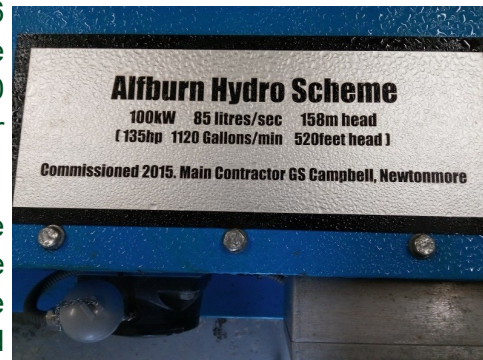
Costing around £750,000 and with a payback period of between 6 and 8 years the 100 kW hydro scheme is located on the banks of the adjacent watercourse on the farm. With the turbine running at 1000 revs per minute and with an inflow water speed of 250 miles per hour, the station is constantly running.

In terms of the environment, the construction of the site and the pipeline was particularly important to Stephen, conscious of the amount of peat the farm has and the implications of excavating the site it was important that contractors were equally as conscious and work sensitively. In a similar fashion biodiversity is protected during the running of the hydro scheme with inflow catchment points designed to restrict access for fish and frogs in particular.

The hydro station is self operating to a large extent with the generator being adjustable depending upon water availability. Other than that, the intake valves occasionally require cleaning as there can be a build up of algae and moss on the mesh but water is taken from the river and placed back from the outflow point clean, untreated and as if it was never taken in the first place.

The group were generally impressed by the set-up, with discussion around the use of water for power being positive, however Stephen himself conceded that there stations like his rely on winning a "location lottery".

Renewables are another way that Stephen has been able to contribute towards Scotland's climate change goals, whilst maintaining a profitable farm business.



There are nine climate change focus farms in Scotland. Keep up to date with their activities at



www.farmingforabetterclimate.org

Meetings are free to attend and all farmers are welcome.

For more information on HIFEN group of farms contact project facilitator derek.hanton@sac.co.uk or telephone 01463 233266

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