Cairngorms Monitor Farm

George and Charles Gordon
Lost Farm, Strathdon

Report from Meeting held on the 19th March 2014

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INTRODUCTION

Around 20 people attended the meeting, where David Ross gave a short overview of the meeting and firstly invited Charles Gordon to give the group an update on farm events since the last meeting. He then went on to introduce the guest speakers for the meeting.

Farm Update – Charles Gordon

- Charles highlighted they were mid calving and were preparing for lambing in what has been a relatively mild period of weather.
- The main concerns were the loss of seasonal grazing this year and the potential impact it could have on the business.

Livestock Housing and Ventilation – Jamie Robertson, Aberdeen University

David Ross went on to introduce Jamie Robertson, an Animal Welfare & Ventilation Specialist from Aberdeen University to demonstrate and discuss housing and ventilation in the buildings at Lost.

During the visit to the buildings at Lost Farm, Jamie highlighted 3 key points when looking at farm building ventilation and animal respiratory disease:

- Fresh Air
- Air Speed
- Moisture

Looking at the portal frame building first, the discussion focussed on the basic principles and highlighted that the modern building worked quite well due to the open ridge which allowed the stack effect to work. The heat from the cattle allows the air to rise and escapes creating a negative pressure within the building drawing more fresh air into the building. The gap between the block work and cladding was closed, due to problems with snow blowing in in bad weather, and Jamie highlighted he had no problem with this as a short term measure, but not to use it all the time,

The use of the gale breaker at the south-western gable end was highlighted as being very useful in reducing air speed. Space boarding and Yorkshire boarding was also highlighted as good ways of improving air inflow, but excluding harsh weather. Jamie also highlighted the difference between space boarding and Yorkshire boarding. He viewed Yorkshire boarding as space boarding doubled, but with the air space in alternate spacing to reduce the risk of snow and rain accessing the building.

As per the enclosed factsheet, Jamie did a rough calculation with the group and highlighted the shed should have an air outlet amounting to $0.1m^2$/hd for adult cattle with a similar area for air inlets which the building had. The enclosed notes from Jamie Robertson explain this in more detail.

It was also highlighted that air inlets should be above head height for the cattle to avoid draughts, which can subject the cattle to increased climatic exposure (or wind chill) which will affect the performance of the cattle.

The second building, an enclosed corrugated iron building, with only a partial open ridge was a multi-purpose building housing cattle at one side, with the stone wall from the original steading providing the boundary wall for the shed on the southern side.

Smoke candles were released here and highlighted that although the stack effect could work in part of the shed, there was a lack of fresh air getting into the building. Air flow ducts or fans were discussed to help improve the inflow of fresh air, as fresh air was highlighted as being a great agent at killing bugs, compared to a muggy environment with stale air.

Opening doors at the end of the sheds (albeit they let more air into the shed) do not solve the inherent problem as the air from the doors just rises to the roof outlet without penetrating into the building, and if it does due to the wind speed it just creates draughts.

The third element to help minimise respiratory disease (Moisture) was also explained here as bugs thrive in damp muggy humid environments, and with livestock urinating and respiring every effort needs to be made to minimise this effect.

Good airflow helps remove the respiration, and clean dry bedding helps soak up the dung and urine. Clean dry bedding was also highlighted as being very important for young stock to help protect them from disease risks, and keep them above their lower critical temperature (LCT). LCT is the temperature at which livestock are required to stay above without expelling excess energy keeping warm.

Looking at the old steading buildings, Jamie highlighted they were still often useful buildings for housing livestock, whether it be small sick bay pens, calving areas or young stock housing, as slate roofs were breathable allowing the stack effect to work. Small alterations to make airflow effective do not always need to cost a lot either whether it be inserting air holes into walls or installing small fans or air ducts.

Finally, the group visited Home Farm Candacraig. Smoke candles were released in the double span portal frame building with the doors closed to see how the airflow worked in the building. With no livestock in one side of the double shed and space boarding on the eastern side, an effective stack effect was seen.

Sheep and Grassland Management – Michael Blanche, Quality Meat Scotland

In the afternoon Michael Blanche provided a presentation on sheep management and covered the importance of keeping ewes in the right condition for optimum performance. Different methods of grassland utilisation covering set stocking, rotational grazing and paddock grazing were also highlighted, the importance of keeping grass at the correct grazing height in spring and early summer, and the benefits it provides later in the year, with regard to ewe and lamb performance.

A visit to Little Tolly assessing ewe condition was carried out and discussion about establishing a rotational grazing regime to improve grassland utilisation, following the loss of seasonal grazing land.

Concerns were also raised about the lack of early spring grass, and suggestions about the use of sward lifters or various grassland aerators were suggested.

Recording the grass height weekly was suggested along with ideas about using upturned washing baskets pinned down in each field to show the level of grass growth occurring when not grazed by sheep.

Take Home Messages

- **Remember the three key factors when dealing with respiratory diseases in livestock buildings 1.Moisture 2.Fresh Air 3.Air Speed**
- **If you have respiratory disease problems in a building each year then look at the building design and see if improvements can be made**
- **Make sure there is an air outlet in the roof – This helps clear stale air and drives the stack affect.**
- **Grass is an underutilised resources which can be better utilised through rotational or paddock grazing systems.**

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