

ABOUT LOCHABER MONITOR FARM

Farm name	Strone Farm, Lochaber Monitor Farm, Banavie, Fort William, PH33 7PB
Meeting Number	014 – Rotational Grazing
Meeting Date	Thursday 5th Sept 2019
Date Next Meeting	7th Nov 2019 - Can environmental and diversification options improve your business?

Strone Farm is run by Chris and Malcolm Cameron as a family partnership and in total the business farms 1,788 hectares.

Cattle: 40 Limousin cows producing store calves. Cows are in-wintered.

Sheep: 500 Cheviot ewes, producing store lambs. Mainly Lleyntups and hoggs kept as replacements. Ewes lambed away.

- For this meeting, the group decided to travel to Dalilea Farm, which is run by group member John Macaulay.
- We were also joined by SAC consulting grassland specialist Lorna Galloway and technology researcher Tony Waterhouse

Picture 2: Discussing inbye summer grazing at Dalilea



Picture 1: The group surrounded by Dalilea hill



Aims of Meeting:

- Find out if rotational grazing can be applied to a hill farming system
- Find out if these techniques can help us to improve grass utilisation going forward
- Find out what alternative technology is available to help us manage livestock on the hills

Management Group:

James Colston (Chair)
Paolo Berardelli, Peter Kennedy, John MacAulay
Ewen Campbell

FARMERS UPDATE

- The new grass sown just before the last meeting is doing well
- Grass has been analysed to see why yield at 2nd cut is much lower than 1st cut. Initial thoughts from Watson Seeds is that the crop is low in Manganese, so a foliar application may be tried next year.
- Lambs were weighed and all those over 25kg (150 lambs) have been put into the shed for fattening. Initial batch should be ready for slaughter next week.
- Lambs under 25kg at the initial weigh will be re weighed soon and Chris will then decide if they will be weaned and sold, or put onto the fattening system.

KEY MESSAGES

The key messages delivered from this meeting were:

- Rotational grazing used on inbye fields can result in improved grass health & root structure, reduced poaching, reduction in purchased feed, improved weight gains from grass and the ability to keep 20-30% more livestock during summer.
- Extensive winter grazed hill ground is less suited to grazing in rotation due to the large size and impracticalities of managing large hill parks. It is also expected that the quality of rough grazing will degrade during winter, leaving this type of management least cost effective, however set stocked hill parks allow good utilisation of hill ground over winter.
- Resting inbye grass (giving it a break) will significantly improve grass yields and sward health. Grass growth will vary year on year and season to season, but can be monitored using www.grasscheckgb.co.uk
- The most important things to consider before starting rotational grazing include: current soil & sward health, cow group size & bulling strategy paddock size & number, access to water, ease of management and initial set up costs.



Picture 3: Measuring grass using a sward stick

AREAS OF DISCUSSION

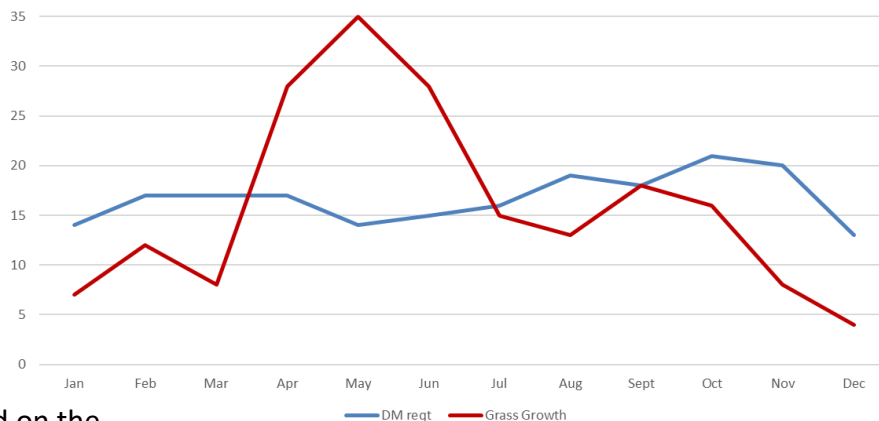
What is Rotational Grazing?

Rotational grazing is the Subdivision of fields into smaller paddocks with the aim of making more efficient use of grass. It involves moving stock frequently to give the sward time to recover. During spring/summer, livestock should be moved when the sward is at 5cm – to avoid damage to the growing point - and ideally rested for 21 days (45 days in winter) In

Lochaber most cows are usually wintered on the

hill after weaning in Sep/Oct, which allows the sward to recover when grass growth is at its lowest, however a rotational grazing system presents the opportunity to extend the grazing season for younger livestock, or to keep more cows in the summer, but think of an alternative wintering strategy (perhaps away wintering?)

Graph 1: Typical grass growth curve



What are the benefits of resting grass?

A ryegrass will only ever have 3 true leaves. As the 4th leaf emerges the 1st leaf dies. Grazing at the 3rd leaf stage is the optimum as the energy content of grass comes from the sugar and fibre contained within the green leaf. Until the 2nd leaf emerges the plant is reliant on root reserves to grow. Overgrazing of these same early leaves places stress on root reserves making the plant stressed and potentially damages the growing point.

Things to consider when splitting a field into paddocks

- The group visited an 8ha field, and discussed the calculations required to fence it based on a group of 25 cows.
- A spring calving cow requires approximately 350Kg/DM/day. Therefore the field capable of producing approximately 8170Kg DM could provide enough feed for 23 days, meaning that a sensible split of this field might be 7 paddocks with cows moved every 3 days
- It is important to think carefully before fencing fields into paddocks. Splitting a herd into too many groups, will make bulling difficult, while too many paddocks will result in high set up costs and problems with watering facilities.
- Rotational grazing does not replace good practice grassland management such as routine soil testing, drainage, liming, and nutrient management.



OPPORTUNITIES/CHALLENGES

Virtual Fencing and Location Tracking (Tony Waterhouse)

Tony presented an update on new technologies which could seriously improve labour efficiency of hill farming and could also make the movement of livestock on a rotational grazing system much slicker and cheaper. He also brought along some of the kit currently being used in the field.

The MF group prioritised what they thought would be most useful to hill farming from this technology:

1. For locating livestock on the hill – tracking tags to identify where stock are and if they are moving (also potentially useful if they have been rustled, or taken by a predator).
2. As a gathering aid – virtual fencing to hold stock within an area, or to gathering them down over time.
3. To identify behaviours eg about to calve, heat detection etc

However the technology is not quite there with the main barriers being battery technology – they currently do not last long enough. The insulating properties of sheep wool are also limiting the virtual fencing success with that species.

The picture opposite shows Paolo trying on a sheep collar for size



Research on this technology is ongoing. For Example, there is a RISS (Rural Innovation Support Service) project currently ongoing called “Virtual fencing and tracking for hill cows” to assess the tools, equipment and practical challenges of using this technology. If you wish to participate in this project on your own farm, please visit: <https://www.innovativefarmers.org/welcometoriss/current-riss-groups/>, or contact the MF facilitators who will put you in touch with the project co-ordinator.

Proposed Action Plan:

- Chris and Malcolm to identify any areas of Strone that could be used for rotational grazing for example the Clunes fields.

FACILITATOR CONTACT DETAILS

Niall Campbell, Morven MacArthur & George Gauley
SAC Consulting
Glencruitten Road, Oban, PA34 4DW
01631 563 093. Email: fbsoban@sac.co.uk



Annex A – Additional Information

QMS have recently released some useful electric fencing videos:

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-1-introduction>

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-2-energisers-and-switchers>

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-3-earthing-system>

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-3-earthing-system>

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-4-wire-types>

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-5-posts-and-insulators>

<https://www.qmscotland.co.uk/electric-fencing-better-grazing-6-electric-fence-gates>

Grass analysis results taken from Dalilea August 2019

	Inbye 1	Inbye 2	Hill
ME	11.7	11.6	9.1
Crude Protein	26%	18%	9%
D value	74	73	60