



FARMER LED, FARMER DRIVEN

BANFF & BUCHAN MONITOR FARM
RESILIENCE IN GRASSLAND MANAGEMENT
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With Poppy Frater
Sheep and Grassland Specialist
SAC Consulting

Mob: 07825 935619
E: poppy.frater@sac.co.uk

RESILIENCE IN GRASSLAND MANAGEMENT



BACKGROUND

During previous, recent dry summers, Sauchentree has dried up. Coastal winds add to drought issues around the critical lambing period.

Lack of grass can lead to thin ewes, resulting in increased instances of prolapses and twin lamb disease.

Objective:

This report, by Poppy Frater, SAC's Sheep and Grassland Specialist looks at ways to enhance Sauchentree's resilience against varying climate conditions. Poppy reckons this can be achieved by optimising grass use and incorporating a diverse range of crops.

Current practice:

Bruce has already initiated several strategies to bolster the farm's resilience:

- Introduction of Italian ryegrass after barley cropping. This is followed by sowing an undersown wholecrop, leading to a low-weed reseed, taking advantage of the nurse wholecrop.
- Implementing deferred grazing plans to boost the soil's moisture retention and decrease the duration of housing animals.
- A part of a field has been sown with Lucerne, a French crop known for its deep roots, ensuring growth even in dry conditions.

RECOMMENDATIONS:

To further enhance farm resilience and efficiency, Bruce could:

- Shorten the wintering period using deferred grazing.
- Reduce reliance on barley feeding by enhancing grazing management and introducing winter forage crops.
- Alleviate stress on farm resources by employing rotational grazing and early destocking.
- Ensure lambs grow efficiently and consistently, without interruptions due to changes in forage crops.

ROTATIONAL GRAZING

Prior to the purchase of Bonnyton Hill, the average field size was 7-8 acres which is ideal for rotational grazing. Splitting up fields more enables greater grazing pressure which improves utilisation of grass – a valuable benefit when grass becomes in short supply.

Bruce is bringing in more **deferred grazing** for the cattle, which will benefit the soil water-holding capacity as well.

Sheep are currently out on grass until December, when they go on to the stubbles and silage with barley via 3 in 1 feeders until 2 weeks pre-lambing. The barley feeding is not ideal for rumen health and, although produced on farm, would have an opportunity cost associated with it.

In addition, there is a lot of pressure on the farm to produce silage for winter feeding, this has come at the cost of arable cropping.

Experiments with **deeper rooting species (red clover, lucerne)** alongside fast-growing grasses (Italian ryegrass) are already underway to provide excellent quality silage, high-value silage aftermaths for grazing lambs and winter forage for cattle.

Lambing fields are well rested, from November, this is ideal for grass growth in the Spring.



LIVESTOCK DEMAND

The current **Cattle:Sheep ratio** stands at 56:44, based on general livestock units spanning both cattle and sheep enterprises, close to the ratio (50:50) for optimal parasitic worm control and pasture quality management. This puts the business in a strong position to benefit from clean grazing or diluted pasture burdens for reduced worm burdens.

DRY MATTER(DM) REQUIREMENT AND UTILISATION

The annual dry matter requirement across Sauchentree's 188.6 hectares of grassland is an estimated six tonnes per hectare.

Bruce shifts stock every two weeks, and grass utilisation is estimated to be 65%, requiring a grass yield of 8.1 tonnes DM/ha.

Adopting 4-day grazing interval via a leader-follower system, Bruce could potentially boost utilisation to 75%, thereby needing a lower grass yield of 7.5 tonnes DM/ha.

The area is prone to drought, so solely relying on grass to achieve this production level might be ambitious.

RECOMMENDATIONS

Poppy recommends refining the grazing management approach and intensifying integration in the arable rotation, especially during the winter.

This could involve using catch crops or having sheep graze on winter cereals. To make more informed decisions, measuring grass yields can be helpful alongside a feed budgeting tool.



LEADER-FOLLOWER GRAZING

From lambing onwards, Bruce organises ewes and lambs into groups, each consisting of 50 to 100 animals. By the end of May, after their wormer and vaccination treatments, these groups are merged to form larger batches, each containing around 200 ewes. This results in three similar, large groups.

There are 30 cows in each bulling group. Additionally, there's a separate group composed of older cows, making it a total of four cattle groups.

Given the number of ewes and cattle, a leader-follower grazing system with 2-day shifts appears to be effective.

RECOMMENDATIONS:

- Initiate a 20-day rotational grazing pattern. This would mean 16 days of rest and 4 days of grazing for both sheep and cattle in a group.
- For effective management, utilise a 36-hectare (89-acre) block with fields averaging 3 hectares (7.5 acres) each.
- Keep two paddocks spare, especially for periods when grass growth might decelerate. This would mean Bruce would need a total of 12 paddocks. If not required, these paddocks can be cut for silage or deferred.

The daily dietary requirements are as follows: each cow needs 15 kg of dry matter (DM) – accounting for wastage – and each ewe requires 3 kg DM. For this stocking rate, the grass growth must exceed 29 kg DM per hectare per day. It's anticipated that summer grass growth will meet this.

Pilot this approach with just one group initially. If successful, the system can then be implemented across three areas.

HOW HARD TO GRAZE?

Poppy recommends:

- Sheep down to 5-6cm (2000 kg DM/ha)
- Cows to 4-5cm (1650 kg DM/ha)

If the grass height on entry is less than 8cm, then the grass growth is too slow for the rotation and additional area is required. If grass height exceeds 10cm, the grass growth is too fast for the rotation and additional area can be taken out or topping will be required.

Grazing management pointers

Cows grazing alongside ewes in springtime is valuable for worm control but this practice holds less potential to provide targeted quality nutrition to the lactating ewes. Lamb growth rates can be poorer if aiming for 5cm grazing residuals.

Target lactating hoggs and triplets to the higher quality pastures than the twins. These two groups should be provided the best clover and herb pastures to maximise performance during lactation. These should not graze less than 6cm and, therefore, the pastures will benefit from tidying up by another group.

Poppy saw potential to split autumn fields into paddocks with electric fencing where there were productive grass species. Rotational grazing by cattle and calves followed by tight sheep grazing later on can improve pasture quality without the need for reseedling.

DEALING WITH DROUGHT

Reduce grazing pressure if the soils dry out:

- Sell lambs lighter
- Creep feed lambs
- Wean sooner (from 10 weeks after start of lambing) and move fat ewes onto the rougher ground



SILAGE-MAKING PRACTICALITIES.

Pit silage is preferred due to labour shortage, usually around 500 bales are made and the rest of the grass is conserved in the pit. A bale wrapper is prohibitively expensive, but making pit silage is less flexible to fit in with rotational grazing.

This puts more emphasis on taking land out for deferred grazing rather than ensiling when grass growth is fast.

If grass has got ahead and quality looks poor, graze with cattle rather than sheep.

TOP TIPS FOR SAUCHENTREE

1. Mob up groups post lambing/calving into the usual 200-250 ewe groups and 30-cow bulling groups – in late May
2. Allocate a 36-hectare (89 acre) area to a group of 200 ewes and 30 cows, with field sizes averaging 3 hectares (7.5 acres).
3. Use grazing height targets to estimate stocking pressure. Keep 12 paddocks for the rotation with 2 kept in reserve as the grass starts to slow.
4. Use silage aftermaths to extend late summer rotation.
5. Keep weaned lambs on rotation and move the ewes. Condition score the ewes and give good grazing to the lean ewes.
6. Cows should follow the lambs. Lambs should not graze lower than 5cm.
7. As grass growth slows, move the cows onto deferred grazing and keep lambs moving round the rotation. Grass quality does not deteriorate rapidly in late summer, therefore tidying up is less urgent.
8. Consider starting rotational grazing again with the ewes 40 days after tup introduction to the ewes. This is a good time to clean out the sward by grazing to 3cm and ration the grass when the ewe requirements are relatively low.



MONITOR FARM Scotland

To find out more or to sign up, please contact:

Regional Adviser – Peter Beattie

07769 366614

pbeattie@qmscotland.co.uk

monitorfarms.co.uk

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