Profit from pasture

It’s well recognised that grass is the cheapest feed we can use, but how can we maximise the efficiency of grass on the farm? The herd at Hillend is already performing well, averaging around 9,000 litres. So the question is, how much more can we do from grass?

With examples from work underway at Crichton Royal Farm, SAC Consulting’s Dairy Specialist David Keiley covered a range of topics, including optimising the cows’ diet and the use of buffer feeding to meet maintenance and yield requirements from grazed grass, especially at different times of the grazing calendar, to sustain high levels of milk output.
To graze or not to graze?

For all grazing systems, you need to know what grass can do, then plan and manage accordingly.

Paddock grazing
David Keiley talked about paddock grazing systems, using Crichton Royal Farm in Dumfries as an example.

At the Crichton, grazing is divided into 21 rotational paddocks of around 1ha blocks each, 100 cows are given access on a 21 day rotation:

| Entry: | 2,800kg DM/ha |
| Exit: | 1,800kg DM/ha |
| Est. intake: | 10kg DM/head |

Fields are grazed for three rotations then cut and baled with the aftermath put back to grazing. Paddocks are cut and baled if above 3,000kgs or 12 cm.

Zero grazing
Although not suitable for all, some farms could operate a zero grazing system, taking the grass to the cows as part of a carefully balanced ration.

David noted one farm who has removed 1/3 of feed costs through better utilisation of grass. In this system, identified paddocks were cut early afternoon and evening to make the most of the sugar content (using a forage wagon and drum mower). If weather was too poor to cut, reliance on the TMR gave flexibility whilst maintaining yields.

With good housing, livestock and ration management, high milk yields can be maintained on a zero grazing system. Keeping stock indoors allows better management milk yields, avoiding the drop as animals are put out to grass.

However the group felt the system was not without its drawbacks, especially in terms of access or potential for damage to cutting fields in wet weather and the benefits for cows through locomotion, tidier feet and a general ‘clean up’ from being out doors.

Wide variation in grass growth
At the Crichton, its estimated that daily grass growth can vary from around 24kg DM/ha in mid April to 99kg DM/ha in early June, falling to 47kg DM/ha early September. How do you compare?
How much grass are you growing?

Measure to manage.

To measure sward cover, you could simply put a mark on your boots, use a sward stick or an electronic plate meter.

Using a plate meter give the most accurate way to measure and assess field cover; the plate meter uses equations to convert the grass measurements into kilos of DM/ha. By knowing dry matter, you can manage and graze fields at the correct cover, removing stock once a set amount of grass has been grazed.

SAC Consulting’s James Buchanan demonstrated the use of the plate meter at Hillend, taking a random sample of 20 to 30 readings (or ‘plonks’) to give an estimated kilos DM/ha.

Although it was early in the season, three fields were measured with the plate meter and recorded as 1,800 kg DM/ha, 2,000 kg DM/ha and a reseed at 1,450 kg DM/ha. As James demonstrated, random samples are required to get an accurate picture of average DM/ha (so don't avoid the bad bits and measure the high bits).

Manage your grass as a crop

- **9t DM/ha** is the average yield in Scotland
- **12t DM/ha** easily achievable for Scottish conditions
- **15t DM/ha** currently achieved by Moorepark Grazing Group in Ireland
- **18t DM/ha** is the Irish target
Turning the carbon footprint to your advantage?

Carbon footprinting can seem like a detached concept from the day to day running of the farm, however it gives another way to look at how efficient your business is. Are you under performing in comparison with your peers or comfortably exceeding current benchmarks?

For Hillend, host Ross Logan carried out a carbon footprint and found it “a useful way to focus on when and what you use, rather than just how much it costs”. Individual savings can be modest, but when taken on a number of activities across the farm, it all adds up.

Previous dairy focus farmer Ross Paton at Torr reduced the farm carbon footprint and saved around £37,000 just through tweaks to current practices and improving efficiency. You can read about some of the savings at Torr in the Case Studies section at www.farmingforabetterclimate.org

SRUC’s Gillian Reid explained that the group could use AgRE Calc®, SRUC’s Agricultural and Resource Efficiency Calculator to establish their carbon footprint and benchmark, both nationally and within the group.

Gillian offered to help to compile and interpret individual carbon footprinting results. With findings anonymised and presented at a later meeting, you would be able to see how well you compare with others and consider measures to cut both costs and carbon. If interested, contact Gillian or James at the SAC Consulting Perth Office on the number below.

AgRE Calc is free to use and can be accessed at www.agrecalc.com

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 Hillend, contact farm facilitator James Buchanan on 01738 636 611 or via email at james.buchanan@sac.co.uk for more information.

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