Paddock Grazing Pays Dividends

Nuffield scholar Robert Fleming, from Castle Sinniness, Glenluce, brought the drive and enthusiasm he gained from completing his scholarship in 2015 back to his home farm, and in two years he has transformed his cattle system.

The 240 hectares, split among three farms but run as one business in partnership with his dad, John, and mum, Rachael, supports 260 pedigree Aberdeen-Angus and Angus cross cows as well as a flock of 65 Roussin sheep.

Robert's Nuffield title was "Efficiency Gains Through Improved Beef Genetics". However, he agrees wholeheartedly with a statement from New Zealand consultant Trevor Cook at a recent QMS Grazing Group conference suggesting that genetics are the blueprint for potential but mean nothing if the management is not right. Robert added: "We have got everything we need in the UK for a strong beef industry, we just need to use it better."

The catalyst to inspire change on the Flemings' South Milton farm was being asked to be the UK's first forage "ifarm" for Agrii in January 2015 and this is when Robert began to dabble in paddock grazing on one of the units. Since then, he has adopted the system across the whole farm, gradually bringing in a larger area each year. Robert regularly attended the QMS South West Grazing Group meetings and found them especially useful for technical details such as knowing how much residual grass to leave at certain times of year.

He said: "The most important aspect has been analysing the soil and getting the pH, phosphate, potash and magnesium right over the farm. This has improved the grass growth by 25% while reducing the amount of nitrogen applied by 50%."

Having optimised grass growth, Robert's focus is firmly on the amount of dry matter of pasture which can be converted to kg of beef and the amount of kg of beef which can be produced per hectare.

At his Mains of Park unit, six hectares of rotational grazing was divided into paddocks from which Robert achieved production of over 3,000kg liveweight per hectare with young stock in a 260-day period last year with no supplementary feeding whatsoever. Robert plans to increase the paddock system further across more of the farm each year, using the improved profits to develop fencing and water infrastructure. This will allow him to retain more home-bred heifers and increase stock numbers.

He said: "The aim is to minimise what comes in on wheels and maximise what goes out in kgs."

The breeding herd is closed and calves from 1st April for nine weeks, with cows in-wintered on home-grown silage and turned out to calve. Heifers are out-wintered and brought in to calve. Robert explained that after calving, the cows are set-stocked until the oldest calves are two weeks old then shifted into paddocks designed for 45-cow batches, with fibreglass posts and polywire connected to the mains. They are moved every week until the calves are eight weeks old, then twice a week.

"Three years ago calves were housed for 180 days over the winter and our concentrate feed bill was £30,000. Last winter it was zero!"

The previous year's calves were only housed for 58 days last winter, which is one of Roberts key targets. They are fed home-grown silage, wholecrop and lucerne with no concentrates. He said: "Three years ago calves were housed for 180 days over the winter and our concentrate feed bill was £30,000. Last winter it was zero!"

Once turned out in February, the youngstock are split into batches of 65 and rotated twice a week round two-hectare paddocks and Robert said: "The first 21 days the calves are out their weight gain is 0.75kg liveweight per day, which is the same as they do in the shed but at one quarter of the cost.

From spring through to summer the calves are weighed every three weeks and average daily gains of 1.55kg liveweight.

As many steers as possible are sold deadweight at around 550kg. The remainder, and the heifers not retained for breeding, are sold as stores at 15 to 17 months. Robert explained: "We used to sell calves at 12 months so our average kg of liveweight per hectare across the whole farm was 500, but by keeping calves to heavier weights and carrying more stock, we have already increased this average figure to 730kg per hectare."

Cow numbers have increased by about 30, but in order to utilise all the grass on the three farms which make up the unit, he has entered into contract grazing arrangements with two farmers for this season.

His own herd is high health, BVD and Johne's accredited, so over the winter he has put a paddock system in place on one of the farms specifically for the contract stores, to keep them separate.

The weaned calves arrive any time from the 1st of January onwards and are put into groups in paddock grazing systems as soon as possible. Groups are moved twice weekly around the seven, one-hectare paddocks. The owner can remove them whenever he wants; any surplus grass will be baled as silage. Robert said: "The grazing contract agreement is based on payment per kg of liveweight gain, which means that the better the cattle perform, the better for both me and the owner."

Robert is very excited about the future potential of his farm. Situated in the south west of Scotland and ranging from sea level to 65 metres, it already benefits from a long grass-growing season, but by getting the soil fertility right and managing the grazing, he does not see why he should not achieve his five-year plan of producing 3,000kg of liveweight from at least 200 of the 240 hectares.+

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