Protecting constituents during a change of system

One herd manager's dedication to developing an efficient grazing-based system has earned him the title of Regional Finalist in the ForFarmers Excellence in Farming Awards. We spoke to him to find out more.

TEXT EMILY BALL

Peter McGill moved to Tyers Hall, near Barnsley, just 12 months ago in January 2018, and with his partner, Rachel Richardson, he has already made significant changes in a drive to make the herd more efficient. The herd has switched to a two-block calving system and costs have been cut in a drive towards greater efficiency and profitability.

The unit, based in South Yorkshire, is home to 170 pedigree Jersey cows that are run on an 80-hectare grazing platform. Average yield previously stood at 5,736 litres per cow, at 5.5% fat and 3.9% protein. The farm is owned by J&E Dickinson and milk is sold to Dickinson's Longley Farm Dairy. The dairy herd is part of a wider estate, which includes including 323 hectares of arable and a pig unit that utilises waste whey from the dairy.

Peter and Rachel aim to increase milk production, while at the same time maintaining milk constituent levels, from a high-quality forage diet and with the majority of feed coming from grazed grass. In a bold move, the all-year-round calving and predominantly TMR-fed herd, has been split into a spring-and-autumn-block-calving system in just 12 months.

"The plan is to improve cow health, sustainability and efficiency – as well as profitability – by making the best use of high-quality grazed grass in the diet," explains Peter.

"Our milk buyer needs a level supply, so we've opted for the two-block system – and we've made the change in just one

year. “This has meant a significant hit on cash flow for the business, which I’m aware we’ve only been able to do with the support of the estate and Longley Farm Dairy,” he adds.

Calving pattern

To make this change in just 12 months, the team stopped serving all cows at the end of January 2018 and didn’t begin again until May, in order to develop the spring block. They then stopped inseminating these cows after six weeks and sent in a sweeper bull for three weeks. In this group more than 57% of cows were in calf to first service. Cows that calved during and after the May/June service period were served in November to make up what will be the autumn block. This block is, again, inseminated for six weeks, before the sweeper bull goes in for three weeks. The herd is now split 50:50, with future plans to have more spring calving cows to further level the milk production profile.

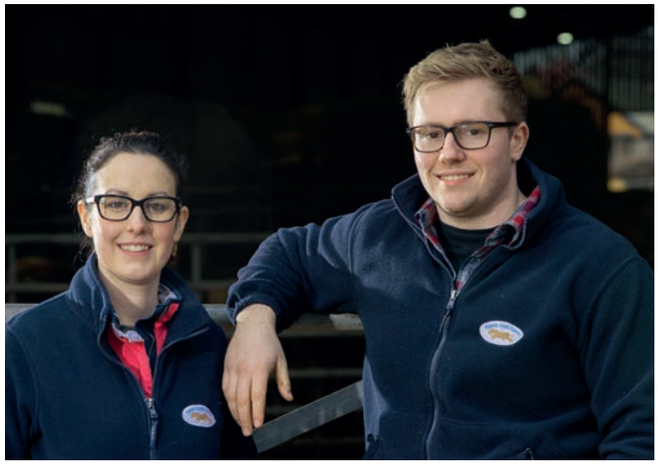
This February will see the spring block calve down for the first time, in a 10-week window. They have been outwintered on forage brassicas and during the close-to period the cows will move to strip grazing with bales. The plan, depending on weather conditions, is to calve outside. They will then move to a paddock-based grazing system, with buffer fed silage as grass availability dictates. “The aim is to feed individuals in the spring block less than a tonne of concentrates a year, while maintaining constituent levels and aiming for yields of between 4,500 and 5,000 litres,” explains Peter.

Both blocks will be run as one herd during the summer and fed to yield in the parlour. The autumn block will then move to deferred grazing for the dry period. They are due to calve in time to take advantage of the autumn spike in grass growth, before being brought inside in mid-October for a month before serving begins. Concentrate use for the autumn block will be around 1.2 tonnes per cow per year. “Our cows are an American-type Jersey, but they are now all in-calf to a more functional Danish-type Jersey with superior health traits,” explains Rachel. “We’ve been surprised at how well the higher type Jerseys grazed during the summer, but we know a more robust type of cow will perform even better on this system.”

This is the first time Peter has managed with a herd that produces milk for a constituent-based contract and is working hard to provide a consistent, high-quality diet that will support yield, as well as butterfat and protein. “The dry, sandy conditions here are ideal for grazing during the shoulders of the season, but they also mean that grass growth can slow down during the summer. The farm has access to an irrigation system, across about 50 hectares, which means buffer feeding will be minimal during the summer. I’m looking to use the irrigator to maintain both grass quantity and quality during the summer. The dry summer in 2018 demonstrated the nutritional hit that grass can take when it dries out and how long it can take to recover from drought.”

Peter has worked with ForFarmers’ Hannah Shirt to develop a whole nutrient management plan, which takes into account what is being grown, what fertiliser resources are available on farm, if and how these need to be supplemented, and how to do this in the most efficient and effective way.

Dry matter yields in 2018 averaged nine tonnes per hectare and with careful management and the minimal use of bought-in fertiliser, Peter and Hannah will aim to increase this in 2019. “We are working with older swards, so our plan is to reseed 20% of pasture each year. I want to be looking at average dry matter yields higher than 11 tonnes per hectare in 2019,” says Peter. “The farm can utilise slurry from the pig unit and the plan is to only use home-produced fertiliser where possible.”

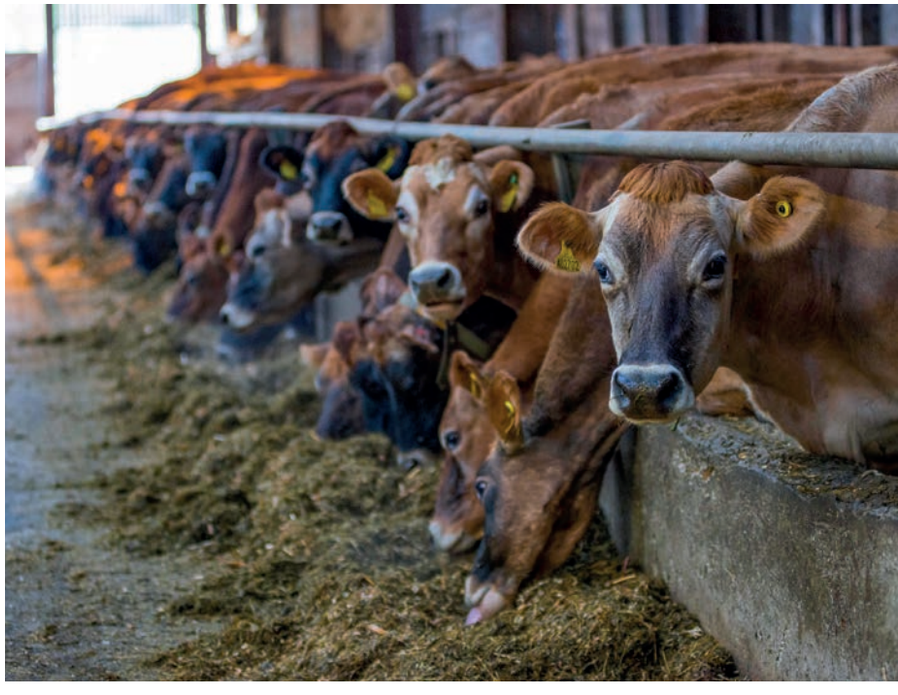


Rachel Richardson and Peter McGill

Improving efficiency

“Our silage requirements have shrunk considerably because we don’t have the full herd to feed clamp silage to during the winter. We’ve also been able to outwinter all the dry cows and in-calf heifers on nine hectares of brassicas. This, and the other changes to the system here, mean that we have reduced labour requirement and machinery costs considerably. The efficiency of the dairy business has improved,” he adds.

“Moving to a forage-based diet, with a high proportion of grazed grass and on a unit with dry conditions, means that you have to be flexible in your approach,” says ForFarmers’ Kate Netherwood. “Peter has thought about and planned for all possible scenarios. We work together to manage any variability in forage quality and maintain milk constituents. But Peter’s knowledge and attention to detail, as well as the use of a plate meter, mean that he knows the exact dry matter that cows take from grazing and we can accurately feed to supplement that.” |



Jersey milkers: their ration supports milk-constituent production