



ACTISAF® IMPROVES MILK FROM FORAGE FOR NEW DAIRY ENTERPRISE

George and Tom Hanmer are not your typical seasoned dairy farmers - they launched their dairy careers only in June 2020. They have worked together and separately on beef and sheep farms in the past – George also spent several years in Australia on dairy farms, and Tom previously worked part time as an estate agent.

Their family own Bettisfield Park in Hanmer, Shropshire, which is where the brothers began farming beef and sheep, but they soon felt disillusioned with the industry and what it could offer them. Ambitious for growth, they had in mind a dairy enterprise.

When the Holebrook Farm tenancy suddenly became available which already had an existing dairy unit. “We didn’t want to wait, we knew the sooner we got into production, the better,” says George. “We decided to use the existing farm buildings – despite their eccentricities – and we got to work, with milk production beginning in June 2020.”

As they planned to feed in the parlour, one of the first things George and Tom had to work on was adapting the existing BouMatic 29-a-side rapid exit parlour where cows are gently pushed away when finished to have feeders. Infrastructure too, was a challenge for the Hanmer brothers.

“At the furthest point, the herd graze 1.8km from the parlour. We’ve had to invest heavily in creating more tracks and improving roadways”. They’ve taken a staged approach to calving with their original purchase, breeding replacements, and gradually pushing back calving to suit the system they want. They calved in autumn 2021 at 82% in 6 weeks. They Al the herd for six weeks before introducing a bull. In 2023 they will begin their first spring block calving and all being well, will continue that way as a 100% spring calving block.

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Milk from forage

Since day one, the Hanmer brothers had a clear vision for the business of driving milk from forage. They also supplement their forage with concentrate feed and do everything they can to maximise rumen efficiency as they know it is the key to production. They've enlisted the help of Phil Jackson, a nutritionist at HJ Lea Oakes, to get advice.

Phil explains, "The Hanmers were clear on the vision; they wanted to concentrate on grass growth, get milk from forage and optimise cow nutrition. They also want to keep things as low cost as possible – which is why feed efficiency is crucial to them." Phil began by testing their grass and silage to establish a benchmark to work from. "They have plenty of protein in the grass, around 30%, so they can keep the protein lower in the parlour nuts," Phil says.

Phil's concern was rumen efficiency and minimising costly dips in butterfats, so recommended the Hanmers try HJ Lea Oakes's ActiGraze 15 nut, which has 5g Actisaf live yeast in it. He says, "Actisaf helps to stabilise the rumen pH, which is how you make sure the rumen is digesting the fibre in grass as well as it should be."

Actisaf live yeast scavenges oxygen in the rumen so anaerobic bacteria (which help with fibre digestion) can flourish while encouraging beneficial bacteria that convert lactic acid to propionic acid, which is less acidic and a key source of glucose. "It's like making silage," explains Phil, "you cover it up to starve the aerobic bacteria of oxygen, otherwise you get poor fermentation – it's the same principle with the rumen."

Tom and George now feed 5kg of ActiGraze 15 at peak lactation, reducing the amount from July to January when the herd's energy needs decrease. "We're happy with the results," says Tom. Our cows keep good condition, good cudding rates and production is where we want it. The muck looks well digested, there are no bubbles on the surface, so we feel confident the rumen is working well – plus we're achieving 76% of our milk from forage."

George continues, "as we slowly reseed each pasture, we'll start introducing alternative forages like white clover – to see how it impacts our milk from forage, but also to help fix nitrogen in the soils.

Autumn transition

With the herd now fully moved onto a spring block system, cows are being prepared for drying off while taking advantage of a warmer autumn and subsequent grass growth. Cows are given access to silage before milking and fed Actigraze 15 through the parlour at 4kg, plus grazing day and night while the weather allows.

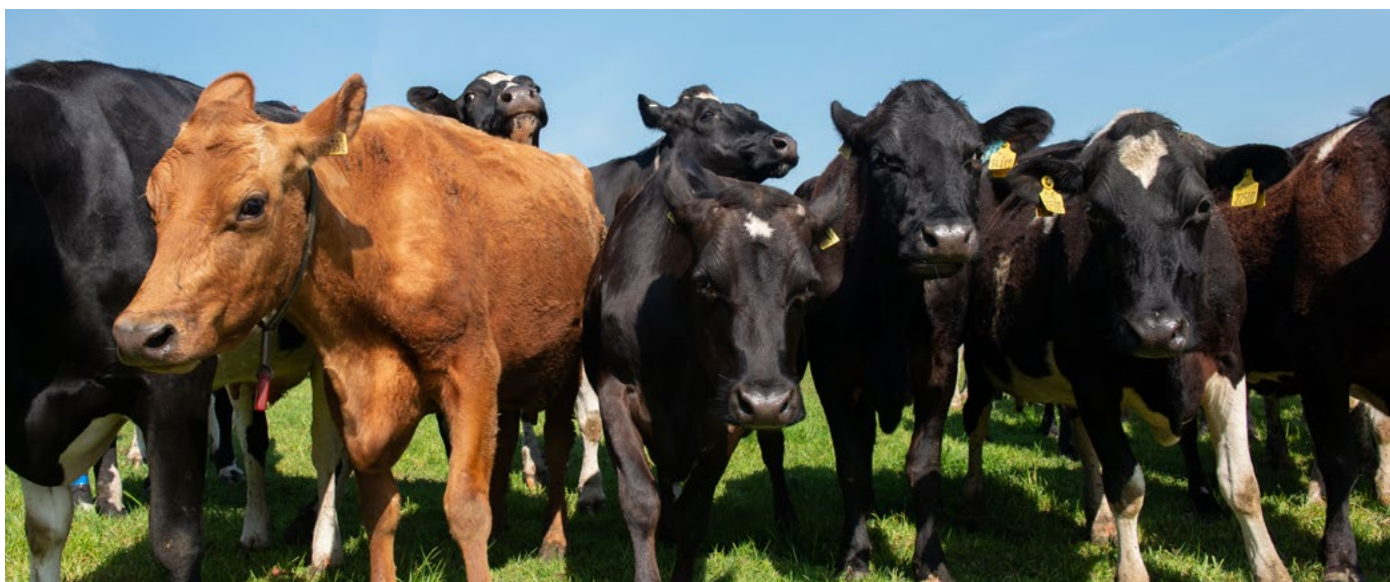
When the weather begins to deteriorate, grazing will slowly reduce - cows will come in at night first, then eventually indoors full time before drying off. Whilst indoors they'll be fed grass silage alone, and, like many dairy farmers across the country with lower stores than usual, the Hanmers will be keen to be as efficient with it as possible.

"We're planning to grow our numbers as fast as we can and keep pushing our milk from forage," concludes George. "We want to stay low input so we can invest in the farm. We're also working on our data gathering and recording – which could open up other contracts to us and bring in a premium milk price. We're getting the basics right first, like the nutrition, and making sure we are as efficient as possible, but the future looks very positive."

FARM FACTS

Holebrook Farm, Bronington, Shropshire

- **340-head herd**, Jersey/kiwi cross
- **Arla contract**
- Producing approximately **6,100 litres**, with 4,636 litres from forage
- Butterfat **4.73%** and protein **3.70%**
- **23.5L milk** and **1.85kg milk solids** per cow per day on average
- **14kg DM/per day** from grass on average
- **5kg HJ Lea Oakes ActiGraze 15** nut to make more efficient use of grazed grass (contains 5g live Actisaf Live Yeast)





MAKE EVERY BITE COUNT THIS WINTER

With feed and forage accounting for the greatest cost on dairy farms, the feed efficiency of a herd has a large impact on whether an operation is profitable or not. In 2022, this has never been truer given a year of geopolitical instability and adverse weather, which isn't going away anytime soon. But what is feed efficiency, and how do we improve it?

Feed efficiency is the amount of milk produced per kilogram of dry matter intake and is typically standardized to 'energy corrected milk' to account for milk solids production. Optimum feed efficiency requires a holistic approach which takes in genetics, environment, management and nutrition. Some of these things are long term changes, while others can be done relatively easily – like a change in diet.

Several critical nutrients such as protein, starch and sugars play a vital role in diet formulation, but forage digestibility is key in determining how much milk can be produced from home grown forages.

High quality forage is the cornerstone of any profitable dairy system. Typically, the higher the quality of your forage, the more milk that can be produced from it. However, the inclusion level of silages in a winter-based diet is largely dictated by the digestibility of the forage and the neutral detergent fibre (NDF) content.

Silages of lower digestibility will limit performance as these forages typically have a higher stem-to-leaf ratio and take longer to be digested by the **rumen microbes**. This results in a slower passage rate of food through the rumen of the cow, which in turn limits dry matter intakes and negatively impacts feed efficiency.

The role of the rumen microbes

Feeding a balanced diet is essential to maximise rumen function and, by extension, optimise feed efficiency. The rumen acts as the engine room of the cow, packed with around one quadrillion (a billion trillion) microbes that work together to extract nutrients from the diet, including 80% of the energy and 65% of the protein that is required for maintenance, milk production, health and fertility.

Without a balanced diet, the rumen environment for these microbes is not optimised, which can cause digestion and cow performance to suffer hugely.

Recent research into the rumen microbiome has identified specific microbes that are linked with high levels of feed efficiency in dairy herds, and it is now thought that the population of microbes in the rumen has a significant effect - possibly more than 50% - on the feed efficiency of dairy herds.

Improving efficiency with Actisaf® live yeast

Actisaf® Sc 47 live yeast creates a more favourable rumen environment and stimulates the key lactic acid utilising and fibre digesting bugs, the exact same categories that are highly correlated with feed efficiency.

By supporting the growth of beneficial microbes, feeding Actisaf® also leads to increased digestion of fibre and more milk from forage.

This was recently evidenced in a study from the University of Nottingham, which found that Actisaf® increased feed efficiency by 5.5% of a high performing (13,000 litres/cow/year), early lactation herd. This was achieved primarily through increased digestion of fibre, which yielded an extra 2.8kg of energy corrected milk with no change in feed intakes.

Top tips for maximizing feed efficiency

- 1. Maximise cow comfort:** Include 60 cm feed space, 1 cubicle bed and 20 cm of water trough space per cow, adequate lighting and ventilation, head feed rails adjusted to the appropriate height.
- 2. Ensure the diet is correctly balanced, properly mixed and consistently fed.** Don't overfill diet feeders and ensure feed passages are clean with mouldy, rotten or heating feed removed. Make changes between forages over 2-3 weeks. Introduce concentrate gradually to post-calving cows.
- 3. Analyse forages on a monthly basis.**
- 4. Monitor cow signals:** Monitor dung for consistency and digestion of fibre and look for cows to spend 12-14 hours per day lying down in their bed and to ruminate for more than 8 hours per day

MAKE THE MOST OF EVERY BITE



PERMITTED FOR USE IN ORGANIC FARMING SYSTEMS

Want to lower production costs per litre by increasing feed efficiency?

With record high costs for purchased feed, the efficiency with which cows convert feed to milk is more critical than ever. Every bite counts!

Actisaf® Sc 47 live yeast is scientifically proven to enhance rumen function and drive feed efficiency in even the highest performing cows. This means your herd can extract more energy from their diet, allowing them to produce more milk.

Trial work with the University of Nottingham's dairy herd showed that feeding 10g/day of Actisaf® resulted in a 2.8kg increase in energy corrected milk at peak lactation, using the same amount of feed without affecting cow health, fertility or body condition.

This increase in peak yield can translate to up to 580kg of extra milk per 305-day lactation - lowering cost of production by more than 1ppl.

For a farm supplying 1 million litres, this equates to £10,000 per year.

ActiSaf^{Sc 47}

Learn more at
www.yeastolutions.co.uk
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