

We stopped chasing production and got... more milk!

Increasing intakes of high quality forage has transformed performance on James Meredith and his family's Village Farm in Elberton, South Gloucestershire. But there's an irony in this transformation, as he says it came about when he stopped pushing his cows for 'every last litre' of milk, and instead started feeding for fertility and health.

"The emphasis has moved to avoiding negative energy balance in early lactation and high quality forages are key for that," says Mr Meredith.

However, as well as improving the herd's fertility (which is seen today in a calving index of 390 days – an improvement of 40 days since 2010) there's been an inexorable rise in production.

Today, yields stand at over 11,000 litres on twice a day milking, at 4.03% fat and 3.26% protein. And that's with around a dozen 6,000-litre Jerseys included amongst the 250 head of Holsteins.

"We have fed for fertility and got milk," says Mr Meredith, who remarks that herd performance stood at around 10,500 litres when he decided to stop chasing production, back in 2010.

Over the same period, animal health has also improved and it is now rare to have a displaced abomasum or retained cleansing, despite having had problems with this in the past. Meanwhile, cell counts have levelled out at around 100,000 cells/ml (attributable to sand bedding as well as to general health) and mastitis rates are low.

But most stark of all has been the change in milk from forage which ran at 1,541 litres in 2010 but has more than doubled since then, at 3,407 litres today. That's over 1,000 litres more than the average herd (according to Kingshay Dairy Manager).



Farmer James Meredith shows the quality of his Safesil-treated silage.

At the heart of the transformation has been producing forage of the highest possible standard through the best silage-making practices, and maintaining a metabolisable energy (ME) of over 12MJ/kg DM in first and second cut silage.

"We've always had quite a strict silage-making policy but we've fine-tuned it over the years," says Mr Meredith. "I learned from my dad long ago that if you put rubbish in, you get rubbish out."

Short term leys (five years and under) comprising modern, high quality grasses are integral to the system and five cuts are taken whenever the season permits.

Aiming to take his first cut at the end of April, Mr Meredith takes great care to ensure enough fertiliser nitrogen has been converted to protein without the risk of excess remaining on the crop, which could give rise to an undesirable butyric fermentation.

"We test the grass before cutting and target 100mg nitrate/kg," he says. "Last year, ours was exactly 100mg on 21 April so we decided to cut straight away."

Mowing no earlier than 11am to allow for the accumulation of sugars, and tedding four hours later, he says clamping is not complete until around 30 hours from mowing.

"We sometimes have an issue with dry matter because of the heavy yields, the high leaf to stem ratio of the young grass, and the cooler weather for the first and later cuts," says Mr Meredith, whose first cut silage analysed last season at 26.9% dry matter, 18.9% crude protein, 75.8 D value and with an ME of 12.1MJ/kg DM.

He also now chooses to use a preservative, having switched from a bacterial inoculant around five years ago. "My view is that you are not giving anything away with a preservative," he





says. “With a product based on bacteria, you are technically giving away energy and dry matter to get the bacteria to grow.”

His thoughts are echoed by Ian Hall, sales director with Kelvin Cave Ltd, who supply the Safesil range of preservatives, which achieve a rapid fermentation and quickly stabilise the crop.

“We opted for Safesil Challenge for the Merediths’ grass silage as it’s specifically suited to lower dry matter forage of between 18% and 30%,” explains Mr Hall. “It contains scientifically proven levels of the preservative sodium nitrite, which is particularly important in wet silages where the bacterial challenge is highest, but it also contains potassium sorbate and sodium benzoate which – in the right concentrations – eliminate the activity of yeasts and moulds.

“These ingredients are used in human food preservation, which gives an idea of their safety and efficacy,” he adds. “And they’re the only ingredients we know of which have been independently proven to eliminate the activity of yeasts and guarantee prolonged storage stability.”

Mr Meredith explains that he started using Safesil Challenge on his grass the year after he used Safesil Pro (comprising the same ingredients but in slightly different proportions) for the first time on his maize.

“Our maize silage has a 60-foot face, and in the past we struggled to get across it without it heating up. We tried all sorts of things, including taking half-depth grabs so we could move across quicker, but the feed was still hot.

“We wasted a lot as we’re not prepared to feed hot forage to our cattle – we would be worried about the moulds they’d be consuming and petrified of getting sick cows,” he says. “We could have made a narrower clamp but that wouldn’t have addressed the issue.”

Trying Safesil Pro on his maize for the first time in 2011, he could see the transformation in his forage, which remained stone cold and allowed him to move across the face at the pace of his choice.

“So we used Safesil on the grass in 2012 – itself a particularly difficult and wet year – and have never looked back,” he says. “The silage is definitely more palatable, and since we started we do not have wasted feed in the troughs to clean out, feed stays stone cold, dry matter intakes have gone up, gut fill looks good, milk yields have gone up and we are not getting sick cows.”

In fact, he says: “Our vets’ bill is nothing compared with before – certainly no more than half what it was in 2010.”

His nutritionist, Sam Kelly, of Kelly Farm Consulting concurs and adds: “The herd is milking exceptionally well and getting milk out at that composition always comes back to forage quality.”

Also calculating the herd’s margins, these now stand at £2,456/cow/year over purchased feed and £1,755/cow/year over all feed. This reflects the base ration (see *panel below*) which is fed for maintenance plus 33 litres and a maximum of 7kg/cow/day concentrates fed in the parlour.

“Making silage at an ME of more than 12MJ/kg DM is brilliant,” adds Mr Kelly. “That has a big impact on margin over feed.”

It has also earned the farm a succession of prizes in the local agricultural society’s forage competitions.

Mr Meredith is quietly confident performance will continue to rise and says the herd is well ahead of its projected performance for 2018.

“It will be exciting to see how far we can go in terms of milk from forage in the next five years,” he says. “We have done a lot of reseeding and have the leys there to do it. The proof will be in the eating, but I think we could get to 4,000 litres from forage by then – if not by the end of this year.”

Milking herd TMR at Village Farm

23kg grass silage
 20kg maize silage
 3.5kg crimped wheat (urea treated)
 2.0kg sugar beet pulp
 2.0kg soya
 330g protected fat
 100g feed grade urea
 100g limestone flour
 Minerals

Above: Farmer James Meredith

Below: The face of the maize clamp now stays stone cold.

