

A long period of change on one Staffordshire farm has convinced dairy farmer Martin Royall the most important thing for cows is actually consistency. Joanne Pugh reports.

Brothers realise consistency is key

With a new approach to formulating cow rations, a different mixer wagon, altering feeds brought onto the farm and tweaking dry cow management, many changes have been made at Waste Farm, Stoke-on-Trent, Staffordshire, since Christmas 2009.

But now brothers Martin and Christopher Royall have made the alterations, they have come to realise getting the most from the new regime involves consistency and no more changes for the herd. Monitoring this consistency relies on technology linked to the mixer wagon and working closely with a nutritionist, which Martin says helps him and Christopher understand the ration and eliminate any human error in mixing it each day. "We can see what's happening instead of him relying on me say-

ing 'just wallop some more silage in,'" Martin says, explaining he focuses on the cows while his brother manages the feeding side. "We realise now, all we were doing when we were changing the ration nearly every day, was messing things up. We never gave the cows a chance."

The first change was at the end of 2009 when the brothers invested in a Keenan mixer wagon. They got the spec of the machine sorted, opting for enough capacity to comfortably feed all 180 cows in two loads, and having the wagon lowered and wide wheels fitted so it could go into their low sheds and carry the weight over slats.

But regardless of the suitability of the wagon for the farm, and despite the fact more feed was put in front of the cows, milk initially plummeted. The brothers worried it was the inclusion of straw in the ration which was making the dif-



Christopher Royall is in charge of feeding the cows each day.



Martin Royall is pleased with the recent changes in the herd.

ference, as they had not been able to feed straw through their old wagon and this was the biggest change at the time.

They referred to nutritionist Clive Slawson of BOCM Pals and sticking with the principle of feeding straw to provide physical fibre, managed to turn things round in about three months. Maize had been removed from the ration, as the brothers had been buying it in and finding the cost prohibitive, and so the focus turned to grass silage and brewers' grains instead.

With Mr Slawson's help, feed conversion efficiency (FCE) improved, milk yield rose again and the cows started looking and performing better.

"Before long the cows looked

well and were milking well," says Martin.

The mixer wagon is fitted with Keenan's Pace system, giving the operator clear instructions of how much of each feed ingredient to add when and how long to mix for. It also records how much is fed per cow and, by adding rejection levels, calculates average cow intake.

Opportunity

Adding this accuracy and information to the expertise offered by Mr Slawson created an opportunity on the farm, which Mr Slawson was keen to exploit. Building on the relationship between farmer, machine and nutritionist, he introduced the brothers to a new concept which was only being

trials by BOCM at the time – the IT3 index.

The index was officially launched at the beginning of July this year, so was still in its infancy in September 2010 when Mr Slawson brought it to Waste Farm.

The IT3 index works on the principle of balancing the ration according to the omega-3 and omega-6 fatty acids it contains (see panel on page 29). Like grazed grass and, to a lesser extent, grass silage, linseed contains a lot of omega-3 – and BOCM Pals' linseed product is an integral part of the IT3 index.

Initially the brothers had been adding the linseed product to the mixer wagon, but incorporated it

into a pellet when the whole approach to rationing was assessed after the removal of brewers' grains. Having previously sourced a load of grains every 10 days, as they had nowhere to ensile large amounts, the brothers suddenly saw supply dry up. While they panicked about the impact on the herd, the cows responded by increasing yield.

This compounded the message about consistency and, realising brewers grains bought from various places was regularly upsetting the cows, the brothers started focusing on grass silage and a bespoke pellet for the ration, complemented by grazing in the summer and 0.5kg cake in the parlour all year round, topped up for any-

Farm facts

- Family business involving brothers Christopher and Martin Royall, and Martin's sons James and Michael
- 100-hectare (240-acre) farm plus 40ha (100 acres) rented
- All grass, with land inaccessible for grazing used for silage
- 180 milking cows with the aim of increasing to 200 to justify investment in the bulk tank and parlour
- Currently milking through a 24:12
- Milk sold to Wisemans on a Tesco contract
- Paid on yield and level profile, so calf all year round
- Milking cows managed as one group with cows giving more than 27 litres topped up in the parlour
- Dry cows managed as one group and housed all year round



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MARTIN ROYALL

thing giving more than 27 litres. Ever since fertility, body condition and milk quality has improved, as well as yield.

"We're happy we're not over-milking them," says Martin. "You can hit some real good figures if you're murdering them but if you can sustain them then you know you're doing alright."

"We're doing far better without the maize and grains. We were nervous about dropping maize. Grains went in to replace that and then we were nervous when grains came out - but because the pellet went in we were ok.

"If you miss with the diet it's two weeks until you see it. It's far better to have consistency because it takes three weeks before the cows settle again."

Mr Slawson supports this consistency message, saying it is about what goes into the mixer wagon in terms of quality of ingredient and attention to detail from the person filling, mixing and feeding out. The benefits seen from this consistency and using the IT3 index mean the farm has 'kept on top of production costs, despite feed costs going up. The linseed product does increase costs, he says, but is justified by the performance of the cows. An improvement of 0.1 in FCE equates to 40p per cow per day saving, as a rule of thumb', he says, let alone the savings from improved fertility and health.

Change

With all the change, silage analysis has become even more important and Martin says he keeps a ready supply of 'freepost' sample bags so silage can be sent off for testing, even if Mr Slawson is not available to visit the farm.

"Dry matter is important but the whole thing is crucial," Martin says. "We got it wrong last autumn, when the cows came in from grass, and we saw how much it affected the cows."

An additional change is housing the dry cows all year round and

The IT3 index

OMEGA-3 fatty acids are as good for humans as they are for cows, so while retailers are not yet paying for low saturated fat/omega-3 enriched milk (with the exception of Marks & Spencer), BOCM Pauls says there is still merit in ensuring correct levels in cow diets.

Cows cannot produce or store fatty acids, they must have it supplied through feed with the right balance between omega-3 and 6 to promote feed efficiency, health and fertility. BOCM Pauls says the IT3 index is designed to achieve the right balance, giving each feed an IT3 value, adding up to a total value for the whole diet. For example, high omega-3 feeds get a high value (95 for

linterc, 12 for the best spring grazed grass and four for grass silage) compared to 0.5 for wholecrop and -0.5 for maize silage.

The total IT3 value at Waste Farm is around 92, which is much higher than the average 50-55, because the herd grazes intensively in spring and summer and always has grass silage in the ration.

BOCM Pauls works on the principle 40-60 will increase rumen health and fertility, while 80-100 will lift milk yield and 120-140 will also increase milk quality and depress methane output. The company hopes this methane depression and 'healthier milk' will attract premiums in the future.

much the milkers rejected and how much the drys are getting.

Martin says the changes avoid the stress of cows moving between dry cow groups and means cows calf down in the right condition.

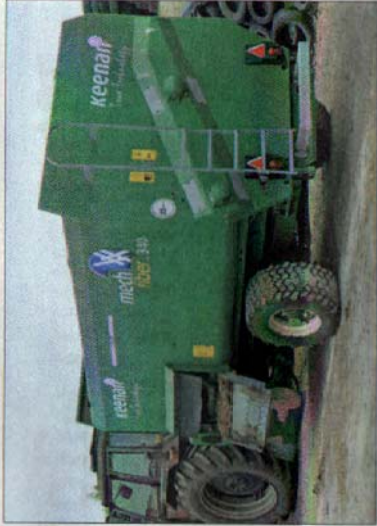
In all he feels whatever group of stock he is feeding, he is getting the best out of the feed he is putting in - and with feed costs ever on the rise, that is something he and his brother are increasingly delighted about.

managing them as one group, a move made to prevent milk fever cases and prevent cows getting too high a plane of nutrition and becoming 'hippopotamuses'.

Now, 10.5 per cent of the milking cow ration is mixed each day so there is enough left over to be combined with straw and second cut silage and offered to the dry cows. The 'leftovers' are weighed in the mixer wagon, so the Pace computer knows how



The silage is clamped on-farm, except a few round bales made for the youngstock.



The mixer wagon has been adapted especially for the low buildings on the farm.



The dry cows are managed in one group and housed all year round.



With all the farm down to grass, grazing and silage-making is a high priority at Waste Farm.

PICTURES: Marcello Garbagnoli