



Painley Health, Nutrition & Management

Minshull Hall

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Having it all at Painley

Adopting a holistic approach to cow health, nutrition and management at Minshull Hall, near Nantwich is enabling the Barlow family's 220 cow Painley herd to further realise its true genetic potential to improve its longevity and ultimately, its efficiency and profitability

Communication has become one of the key priorities at Minshull Hall in the last 12 months. And it's an exercise that is demonstrating real tangible results. Average yield has been maintained at just over 10,000 kg since coming off three times a day and moving to twice daily milking at 12 hourly intervals. Conception rates to first service have increased from an average 47% to 57% and the number of cow examinations has been reduced. The number of dry cows demonstrating calcium deficiency – milk fever - has fallen to virtually nil, displaced abomasums affected nearly 10% of the herd in the previous 12 months, but are now almost a thing of the past, with only one recorded due to ill health this year.

That improved performance can be attributed to a dedicated line of communication between a committed team which is firmly focused on achieving the herd's potential, without compromising its health and fertility or reducing longevity. That team of complementary skills comprises the Barlow's, John, Valerie and son Michael, their herd manager David Hastings; Dugdale Nutrition ruminant nutritionist Pete Davis and vet Neil Howie of the Nantwich Vet Group.

Neil Howie has been working with the Barlow's for 15 years, however it was not until 2003 that he had the opportunity to realise one of his personal business strategies on the 400 acre unit – to develop a strong working partnership between the herd's nutritionist as well as its management team, and subsequently create a dialogue to enable early identification of feed related fluctuations in fertility or production so that remedial action could be taken before cow health, welfare and profitability are affected.

The sea change came following the Barlow's decision last year to introduce M³, Management for More than Milk, a dairy programme developed by Dugdale Nutrition, which has adopted a similar complementary strategy to that advocated by Neil and the Nantwich Vet Group. M³ recognises that performance is measured not only by milk output, but also a comprehensive package taking in reproductive efficiency, lameness rates and cell counts.

M³ requires the parties, Michael Barlow, David, Pete and Neil to meet together on farm every month and discuss wide-ranging health and fertility issues. These four way discussions are augmented every fortnight by Pete walking through the cows. Daily telephone calls are not unheard of.

"Our new way of working together at *Painley* has brought a clear definition of purpose and stability to the herd," Neil explains. "It enables a much smoother and effective form of communication, Pete and myself are prepared to go that extra mile and we know that the staff on the ground will make the same level of commitment."

"This teamwork is definitely a big help," says David. "We spend a lot less time chasing things that have gone wrong and doing the repair jobs to the extent we've been able to cut back on staff, and we're now able to focus more on taking the whole unit forward."

Neil adds the new relationship is also overriding the suspicion that continues between the two professions. "Vets tend to be nervous working with nutritionists simply because they recognise their own weakness in that particular sector and under estimate their ability to contribute."

Furthermore, he argues that farmers are frequently provided with two sets of information, for example one by their nutrition consultant and another by their vet, and some can contradict. "It's those confusing conflicting messages which they tend to focus on rather than taking up the core positive advice," he says. "We've managed to eliminate those sort of niggling issues here."

The Barlow's have been striving for excellence ever since Valerie, together with her late father, established the *Painley* herd more than half a century ago. Over the decades the herd has changed colour from strawberry roan to black and white, while its major break came in 1990 with the introduction of 30 pure imported Canadian Holsteins. Nowadays just over 60% of the herd has achieved purebred Holstein status. In addition, more than 85% of the *Painley* herd is classified GP or better and it is synonymous with the noted *Kimo* family. *Primsland Inspiration Kimo*, one of the most influential cows in the UK in the last 10

years with a record 48 stars, bred the 11 *Painley* stud bulls including *Knighthood*, *Kennsington* and *Knightingale* and a further 10 grandsons are in AI. Last year the Barlow's introduced a new family to the herd with the 10,000gns purchase of *Almond BC Avis*. *Avis* is accompanied by four generations of Excellent cows and David says they are optimistic she will carry on from the *Kimo*'s.

"We're continuing to select tall cows, those that will milk and have the potential for 10,000 kg plus, and the type that I want to get out of bed and milk every morning and be proud of. We're talking about real job satisfaction," says David. "Even the relief milker enjoys working here."

"Since introducing M³, we've become aware of the fact the diets that have been carefully formulated are not necessarily those eaten by the cows – some are more capacious than others, forage analysis on paper can be totally different to the real thing, and grazed grass quality is more than likely to fluctuate depending on management," says Michael. "So we're continuously monitoring each cow and her response, and reacting accordingly. The four of us put time aside twice a month to formally let the cows tell us what they're thinking. We observe individual body condition, belly fill and dung composition. Neil checks out any cows that have not been seen on heat by 42 days post calving, but that inspection is not for the purpose of inducing heats. He is feeling for any abnormalities and will only consider cows post 70 to 80 days calved for fertility work.

"We're also using other tools – we monitor individual cow fat to protein ratios. We've learned that an imbalance of fat to protein ratio generally indicates an energy imbalance, the cow starts to mobilise body fat and that leads to poor follicle maturation and subsequently poor conception rate."

Pete re-emphasises the criteria for diet formulation is focused on optimising herd health to achieve a 10,000 kg plus average on twice a day milking while maintaining high milk quality components, a minimum 4% butterfat and 3.15% protein. "The *Painley* team has taken the courage of its convictions to introduce a diet that it believes will realise a cow's overall performance rather than feeding a least cost formulation diet," he says.

The new M³ regime has led the herd to be reduced for ease of management from five separate milking groups to three milking groups: a fresh calved group, a main milking group and a small group for flushing and show purposes. The dry cows are divided into a far off and close to calving group.

"Beginning with the far off dry cows, those between seven and three weeks from calving, they're fed a diet to maintain condition score of 3 to 3.5. They're monitored by David and myself to ensure that they don't

lose, or even worse, gain weight at this point. Fat cows invariably lead to problems such as fatty liver, increased incidence of milk fever and ketosis resulting in a higher risk of LDA.”

The close up dry cows, those three weeks prior to calving, are fed a diet that reflects their eventual milking cow diet, but also includes a compound with gut and liver conditioners and a very specific mineral package designed by Dugdale Nutrition to reduce the incidence of retained cleansings and milk fever and improve immune status.

“Intake is one of the key drivers here and the cows are expected to eat a minimum of 13.5 kg/DM during this period. I very carefully design a diet that doesn’t encourage udder oedema - blown udders reduce the saleability of stock, as well as increasing herd culling rates.”

Immediately after calving they move on to a ‘post fresh group’ and are fed a diet enabling David to manage the cows according to age and ability. “This is where good stockmanship is crucial and I am reliant on David’s ability to decide whether a heifer or cow needs to stay in the group for longer than the usual three weeks, in order to give her the best start possible,” says Pete. “The diet is set at 12.3 ME and around 16.5% to 17% protein, it is essentially very similar to the main milk cow ration, however it has a higher structural fibre content. Keeping cows at condition score 3 through lactation is critical.”

The diet formulated for the main milking group, from three weeks post calving through to the end of lactation, is set at M + 35 litres. “David has the opportunity to top that up with in-parlour feed set at a predetermined rate of 0.35kg per litre. The base diet provides 12.3 ME and 17% to 17.5% protein with the starch level running at about 18% and sugars at 8%. This winter the mixed diet will comprise maize, Alkalage and grass silage, plus sugar beet and a specific meal I’ve designed for the herd,” Pete explains.

Michael adds: “In a very short space of 12 months since introducing the M³ programme, we are achieving the improved herd performance, health and fertility we’d targeted and equally, the time Neil spends on the unit has been reduced along with our vet and med costs. Furthermore, we’re optimistic that our healthier cows will last longer and that we will be able to realise the Holstein’s true potential.”