

Cows must have the will to perform and also suit their environment and management system

The right cows in the right place

Consistency achieving top lifetime daily yields and managing cows to meet retailer and consumer welfare requirements were the focus of two dairy papers – one presented by a producer and one by a vet – at this year's British Cattle Conference.

text **Karen Wright**

Andrew Higgins, from Wilderley Hall near Shrewsbury, knows that it's a combination of factors that has placed his family's pedigree Holstein herd top in the Lifetime Daily Yield (LDY) rankings, making it the recipient of the NMR/RABDF Chris May Memorial Award for two consecutive years.

This herd is consistently achieving high yields combined with good health and fertility.

"There are a lot of hoops to jump through to achieve a top herd LDY," said Andrew. "But number one would be the cows' ability. Without their desire to perform everything else would be irrelevant."

In 20 years Andrew, brother Bill, and initially parents Bill and Margaret, have taken the herd from 130 cows averaging 7,000kg on a fairly simple system to 295 cows averaging 12,640kg on a three-times-a-day milking, housed TMR system.

Consistent ration

"We've increased output from the farm to support three families and some might be tempted to say that we 'push' the cows, but I'm not quite sure how we would push them. For example, their diet must be balanced and consistent to not only optimise production but also to allow the heifers to continue maturing during their first lactation. It also has to minimise problems like acidosis or poor fertility," said Andrew.

"In fact I would say that cows producing a much lower yield, being fed an energy deficient diet or grazing grass with dry

matter fluctuating widely day to day will be under a lot more stress than a herd, like ours, that's fed a consistent diet."

Number two in the top 10 contributors to high LDY at Wilderley Hall is management during the dry period, calving and immediately post calving. "We focus most of our time on cows in these periods. If we can get the cows through with no problems then the rest of the lactation should be plain sailing. I like to think that our cows are well prepared for each lactation."

To achieve this cows and heifers that are 17 days off calving are housed in a loose yard then individually penned after calving and given 40 litres of tepid water and the milking-cow ration.

"If she does not drink enough we supplement her with a mineral mix in the water. At the next appropriate milking, the cow will join the post calving group for a week. At day seven we give her a full check and if all is ok she will join one of the milking groups," explained Andrew.

Fertility has to be good too and cows are served 70 days post calving. The herd has a conception to first service rate of 38% and a 416-day calving interval. Average age at first calving is 24.7 months and the replacement rate runs at 25%.

Breeding plays a crucial role in the herd's success. "I'm not looking for that magical mating that will produce a show winner, but I would rather breed 40 or 50 cows from a sire all producing more than 12,000kg and lasting for at least

four lactations. Our sire selection criteria are changing with more emphasis on health traits and less on the production side," added Andrew.

Welfare standards

Welfare expectations and achieving targets are high on supermarket milk buyers' agendas. Vet Rob Smith, from the University of Liverpool, spoke of the pressure on the supply chain from retailers and consumers, explaining that some consumers say they would switch retailer if welfare standards did not match their expectations.

"Tesco's livestock code of practice accommodates all production systems and focuses assessing the outcome of the system from an animal welfare perspective to encourage best practice," said Rob Smith.

"Producers must record data and this will provide benchmarks, or key performance indicators."



Perfect balance: rations must be consistent if they're going to optimise production

The data collected relates to consumer concerns such as antibiotic use, lameness, mastitis and calf loss. In addition, those supplying the Tesco Sustainable Dairy Group – a group that Dr Smith is involved with – must meet certain ‘absolute’ standards such as regular milk recording, participation in a Johne’s disease control programme and mobility scoring.

“Routine body condition scoring is recommended, but making this a stipulation was considered too onerous so producers are now asked to focus on tackling thin cows with a condition score of 1 or less.

“And with increased concern about antibiotic usage, the code requires producers to record all treatment courses including dry cow therapy.”

By using key performance indicators (KPIs), Dr Smith said that he believed that producers would be better able to work to targets and breed cows that suit their environment.



Andrew Higgins: “We focus on management from the dry period through to post calving”



Rob Smith: “Using KPIs would allow producers to meet breeding targets”

“More emphasis should be placed on matching the cow to the environment on farm when breeding strategies are formulated,” he added. “Breeding for uniform stature would enable the cow environment to be optimised for all cows.”

He cited a study that correlated digital dermatitis with the mobility PTA of a bull and suggested that this could be

used to reduce the susceptibility of herds to digital dermatitis. Other studies have shown that using bulls with good somatic cell PTAs can reduce the risk of clinical mastitis in daughters.

“Breeding has the potential to contribute to producers achieving good welfare KPIs. The interaction between genetics and her environment will determine how fully this potential is realised.”

