

'Real-time' data provides targets worth aiming for

Goals to go for

Many of the targets quoted to producers are yawn-inducing – unrealistic and questionable as to their real value. What is now proving far more realistic – and grabbing producers' attention – is actual comparisons drawn from the performance of 25 individual parameters in 500 herds.

text **Karen Wright**

Now in its second year, data collected from a cross section of 500 commercial dairy herds with NMR monthly records has been gathered and analysed by PAN Livestock Services at the University of Reading. It is now being put to practical use to compare the performance of milk buyer groups, adviser groups and individual herds and it looks at ranges – top and bottom 25% bands for all 25 parameters including production, fertility and health. "It's a very current and representative large-scale sample of commercial dairy herds in the UK," says James Hanks from Reading. "It gives a true picture of performance and, in particular, the scale of difference in each parameter. As the data sources and calculations are

identical for each herd we are creating a level playing field so true differences show up." Speaking at the British Cattle Breeders Conference in January, Dr Hanks reported emerging trends from a subset of 359 herds that were included in both the 2010 and 2011 database studies. "Looking at just a few, we can start to see an increase in culling rate but a drop in calving interval in the top and bottom 25% bands. And cell counts have dropped slightly, as has the proportion of cows with more than 200,000 cells/ml and chronic high cell count cows. "The data are going to be increasingly valuable to the industry over time but the comparisons with individual herds are already stimulating discussion and



James Hanks

progress," adds Dr Hanks. "For each parameter we focus on the level achieved by the best 25% of herds. This level, currently achieved by one in four herds, is set as a realistic and achievable target. We also look at the figure that 75% of herds achieve to indicate the difference between "good" and "poor" performance."

No excuses

"Using the current performance of herds is so much less controversial than figures quoted by some expert committee or consultant. Telling a producer that his herd's cell count is 250,000 cells/ml usually generates excuses but little reaction. But saying a herd's SCC is in the bottom 25% nationally is far more effective and leaves less room for excuses."

It's this range in performance that should prompt producers to find out where their own herd sits. Dr Hanks quotes the latest figures on age at cull – a good indicator of longevity – which shows that cows in the best 25% of herds

average 7.5 years of age or older when culled while in 25% of herds the average age at cull is below 5.9 years, a difference of 1.6 years.

"This is a huge difference and one that should make advisers and producers reach for their own figures to see just how they are performing."

Herd strengths

The data are now being used directly by NMR's InterHerd+ dairy management program where producers, their vets and advisers can benchmark herd performance for each parameter against those of the 500 study herds, as shown in Figure 1. "They can see just where they are for each parameter and work out the strengths and weaknesses in their own herd."

And Dr Hanks emphasised the importance of seeing so many parameters. "No herd is top or bottom across the board," he added. "If we look at a broad range of parameters then it's usually possible to mix positive with negative messages. Being able to tell our producer that, in contrast to the herd's poor SCC performance, the level of heat detection is in the top 25% of farms is equally important. The producer feels good for

being recognised for heat detection and, hopefully, somewhat embarrassed about the SCC performance.

"Producers should know where their herd is 'excellent' or where there's 'room for improvement' or where the level is 'worrying' for each of the parameters. Then it's a case of discussing the reasons and prioritising areas that warrant intervention."

Sometimes there may be a justifiable reason for the herd not being in the top 25% for a particular parameter – or the investment in time and money to get there may not be worth the possible gain in performance.

Taking one parameter – cell counts – Figure 2 shows the range and possible 'achievement' bands for somatic cell counts for the year ending September 2011.

"What's important is that the information is visible and performance is discussed so producers can prioritise their management."

Dr Hanks and his team have already compiled data for other breeds as well as the Holsteins and these can be viewed on www.veeru.reading.ac.uk/section1/research.htm

There will be some good and poorer performance parameters in each herd

Good practice

Thirty two herds in the Coombe Farm Milk Pool, supplying organic milk to Waitrose, are already using the database to provide targets and ranges for each herd. It has also compared cell counts of the milk pool herds with the 500 herds in the study, as shown in Figure 3.

"This shows how well Coombe is doing as a group," says Dr Hanks. "None of their herds fall in the bottom 25% and many are in the top 25%. This means that they can demonstrate to Waitrose that their overall performance is good and currently improving. Where individual herds within the Coombe group are performing poorly there is an element of peer pressure that provides an incentive to improve."

Figure 3: Herd SCC's of 32 Coombe farms (orange lines) compared with the 500-herd sample

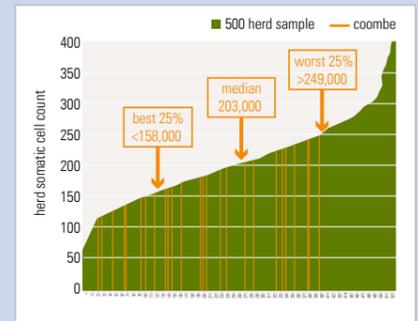


Figure 1: Example herd performance compared with targets from 500 herd study to September 30, 2011.

Note – target is the value achieved by the top 25%. The range is the difference between the top 25% and the remaining 75% of herds. Arrow indicates herd's performance in past three months

| Room for 'worrying?' 'improvement' 'excellent' | | (T) ± (R) | (T) | current | (t)target ± (r)range |
|--|--|-----------|-----|---------|---|
| | | | | 31 | cull/death rate (%) 21 ± 11 |
| | | | | 3 | % cows calving sold or died within 100 days 3 ± 4 |
| | | | | 70 | % cows served 80 days after calving 59 ± 26 |
| | | | | 38 | % cows pregnant 100 days after calving 33 ± 17 |
| | | | | 69 | calving-1st. service interval (d) 82 ± 37 |
| | | | | 412 | calving interval (d) 408 ± 28 |
| | | | | 2.3 | age at first calving (y) 2.2 ± 0.4 |
| | | | | 28 | conception rate (%) 37 ± 13 |
| | | | | 32 | % service intervals 18-24 d. 38 ± 15 |
| | | | | 14 | % service intervals >50 d. 20 ± 19 |
| | | | | 8,309 | milk/cow/year (kg) 8,953 ± 1,283 |
| | | | | 3.29 | average protein (%) 3.33 ± 0.13 |
| | | | | 3.89 | average fat (%) 4.12 ± 0.27 |
| | | | | 8,300 | 305-day yield (kg) 8,515 ± 1,555 |
| | | | | 218 | average SCC 158 ± 91 |
| | | | | 23 | % SCC ≥ 200 18 ± 11 |
| | | | | 13 | % chronic SCC >200 9 ± 8 |
| | | | | 64 | % dry period cure (H-L) 80 ± 14 |
| | | | | 87 | % dry period protection (L-L) 90 ± 10 |

Figure 2: Spread in somatic cell count in 500 black and white commercial dairy herds for the year ending 30 September 2011

