

We examine some key performance data and look to the top 25% of the UK herd for some pointers and inspiration to help you improve herd performance.

In the second in our series of articles on key dairy management benchmarks we take a look at fertility and find out how two herds keep their calving interval, calving to conception interval and days to first service within the ideal range for maximum reproductive efficiency.

The gap between the top 25% and the rest of the UK herd on calving interval has remained at around 30 days for the past three years, according to the latest NMR figures (see Table 1). The average for the top 25% is a respectable 394 days. Many herds are achieving tighter intervals and some are seeing good fertility and making improvements year-on-year with considerably higher intervals, which are now beginning to fall and improve.

So what are these 'top' and 'improving' herds doing to ensure that herd fertility – and productivity – stays on track

Rachael Porter

Table 1: Average fertility performance figures for UK herds (source: NMR)

	2006	2007	2008
CI top25%	393	393	394
CI all	423	425	427
service conception rate top 25%	73,3	72,7	72,1
service to conception rate all	54,5	53,7	52,4
days to first service top 25%	76	75	76
days to first service all	100	100	98

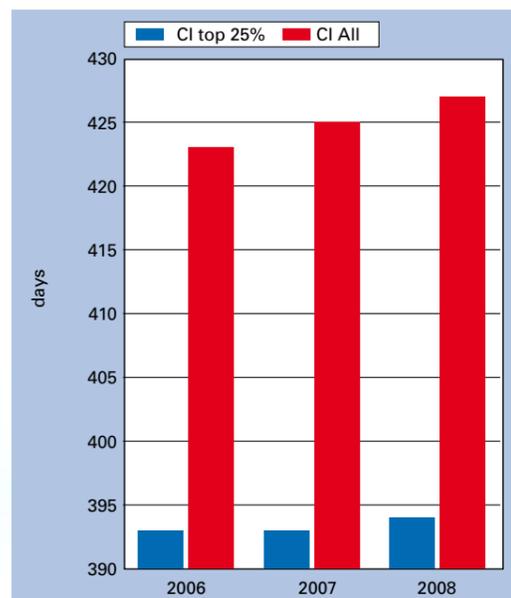


Figure 1: Average calving interval for UK herds (source: NMR)



## William Baillie 175-cow herd with a CI of 400 days

William Baillie introduced new fertility management for his 175-cow pedigree herd, based at Hillhead Farm, near Biggar in Midlothian, about 12 months ago and already he's reaping rewards for his efforts.

Calving interval for the herd, which made it through to the NMR/RABDF Gold Cup final in 2008, was creeping up towards 410 days. "And ideally I'd like it to be between 380 and 400 days, so some new strict measures were needed, to catch cows bulling and serve them within 60 days of calving."

There's now a bit of colour in his cows' lives – namely red and green. "One of the big changes was to introduce tail paint so it's easier to spot cows when they come bulling. It's certainly helped to boost heat detection rates" says William, whose herd calves all year

round. Red tail paint is applied to all cows 60 days after calving and once they've been served green is used and continues to be used until the cow is confirmed in calf.

Of course tail paint alone won't get the cows served at the optimum time – time spent watching the cows for signs of heat and checking tail paint is vital. And that's a job dedicated to one person each day – half an hour, before the second of each day's three milkings.

"The combination of tail paint and regular observation for signs of heat has helped to reduce the number of days from calving to first service," says William.

"And we're also working closely with the vet now – he makes a 'fertility' visit once each week to PD cows and investigate any that we've not seen cycling. We're taking

a much more pro-active approach." Another change at the unit is the introduction of rigorous fresh calver management. "We monitor them closely for the first 10 days after calving. We take their temperature every day, to ensure that there's no sign of infection, and make sure that they're eating well." "We haven't had a huge problem with metritis, but we have had cows come bulling at 60 days and only then would we discover 'whites'.

"It would then be another cycle, while we treated them, before we could AI, so again we're trying to limit the number of days between calving and first service – that way we can get the CI moving in the right direction. And, with calving interval currently running at 400 days, our proactive approach seems to be working."

## Colin Wildman: 220-cow herd with a CI of 435 days

When low heat detection rates were flagged up as the root cause of extended calving to conception intervals at Crosslanes Farm, the action plan involved more than just changing heat detection methods. A more fundamental approach was needed.

Colin Wildman runs a 220-cow Holstein herd, which calves all year round, and calving to conception interval was running at around 190 days, equivalent to a 470 day calving interval. Deciding action needed to be taken, Colin signed up to the Genus Reproductive Management System (RMS) in October 2006 believing the structured approach and close involvement of a RMS technician would lead to better reproductive performance.

It is based on aggressive heat detection using a system of tail chalking combined with daily visits from a highly trained

and dedicated RMS technician who is solely there to breed cows. However, after six months, following discussions between Colin, RMS technician John Greenwood, nutritionist Vince Brady and Promar International consultant Andrew Hawkins the decision was taken to suspend RMS while other areas were addressed.

Andrew believed that a range of factors were contributing to the poor signs of heat, in particular cow comfort and feed access. "Unless cows are able to eat quickly there is a risk of reduced feed intakes which can be a major problem with cows that are already in negative energy balance. Until cows are in a positive energy balance they are unlikely to come bulling," he explains.

To improve feed intakes a new outdoor feed barrier was installed with extra cubicles to encourage cows to lie down

quickly after eating. The diet was also fine tuned and molasses added to help boost intakes.

To ensure cows were not being missed it was also decided to move to a routine fortnightly visit from vet Simon Jones. By scanning cows early, Colin picks up cows that have been served but not held and can take action to get them cycling again.

RMS was reinstated in November 2007 and since then heat detection rate has increased from 45% to 56%, while conception rate has risen to 32%.

"Overall the farm pregnancy rate is now 18% compared to 13% a year ago," says Genus' Paul Jandrell. "Currently 61% of all cows are in calf and calving to conception interval has reduced to 156 – a saving of 33 days – and it is still falling. This gives a calving interval of around 435 days.

Pointers on keeping calving intervals tight and 'empty' days to a minimum

# Counting the days...