

A 35ml milk sample can take the strain out of health and fertility management

# Pots of knowledge

Information gleaned from the NMR milk sample is helping to improve health and fertility management in many dairy herds. And there are added benefits of these 'add on' options to milk recording, as one progressive East Yorkshire-based producer will vouch for.

text **Karen Wright**

**G**raham Gowthorpe sees a lot of sense in using the monthly milk sample from each of his cows for more than one job. In addition to monthly milk quality and somatic cell count data he now gets pregnancy test results and quarterly Johne's disease screening information from each 35ml milk sample.

"It generates a lot of management information for us," says Graham, who runs the Holstein herd at Laytham, near Howden, with his daughter Katie, wife Julie and a full-time herdsman. "But I

also like the fact that we can disease screen and PD without disturbing the cows. It's a far less stressful system and it saves us time too. And it's cost-effective. This really benefits our herd management."

## New housing

The fourth generation of the family on the 123-hectare Favin Farm, Graham has expanded the herd from 40 to 200 cows plus followers during the past 30 years. Beef calves are reared to finishing on the



*Katie and Graham Gowthorpe: "We get useful information from the milk sample"*

farm, which is also used to grow cereals, grass and forage crops for the livestock. Growing cow numbers has meant an investment in new facilities and most recently a new cubicle shed for 90 cows has been built.

"We can now comfortably house high and low yielding groups and have space for youngstock and dry cows," adds

*New cubicles mean that the 200-cow herd and youngstock can be comfortably housed at Favin Farm*



Graham. “We’re calving all year round and keep the high yielders indoors on a forage-based TMR ration then graze the low yielding group during summer.”

Cow performance is paramount here – milk from cows averaging 9,500kg on twice-a-day milking is sold to Paynes Dairies for the liquid market. “We want fit and healthy cows that produce the milk without problems,” adds Graham, who refers to targets set by Dairy Group consultant Nigel Hardie, which help to steer the progress of the herd.

“He uses key performance indicators to set targets and identify where we can make improvements. There’s no standing still. We’d like to reduce the 18% replacement rate and at least maintain, if not reduce, the 392-day calving interval.”

“Getting cows in calf is an important part of this. We start serving cows from 42 days post calving and a list of these cows is given to the milk recorder so that their milk sample can be tested to determine pregnancies.

“We’ve used this service for the past 20 months and we’ve found it to be really accurate. Those cows not in calf are referred to the vet – it’s helping to sort out problems for us and puts the vet’s time to best use in problem solving rather than routine pregnancy testing. Longer term it will help us improve our overall herd fertility as we look to reduce our calving interval.”

### Johne’s ‘issue’

Another area where Graham works closely with his vet is in disease surveillance and he takes a belt-and-braces approach to control measures, vaccinating all cattle for IBR and BVD. “Johne’s disease has been an issue here,” says Graham. “We bought some cows in 2001 and I am sure they brought Johne’s with them. In ignorance we were pooling colostrum so it’s likely we spread the disease to heifer calves that then became part of the milking herd and in turn passed it on to their offspring.”

As soon as the HerdWise Johne’s disease surveillance scheme became available Graham signed up and he now has nearly five years of records to track the Johne’s status of all his cows. “We don’t just monitor the disease,” he adds.

“We have control measures in place and calve any infected cows separately. The days of pooled colostrum are long gone too and we look to cull an infected cow at the earliest opportunity. We’re now a closed herd so we’re minimising the risk of further infection in all areas.”

Graham understands that Johne’s control is a long-term commitment and he will continue to use the HerdWise surveillance programme that uses a milk sample from each cow to test for Johne’s

disease antibodies on a quarterly basis. “Infection levels are now falling and we want to keep this going. It’s a difficult disease to understand, but the good thing is that we’re now in control.” |



## NMR milk sample tests

### Johne’s disease testing

- HerdWise Johne’s screening programme tests milk samples from individual cows, collected through NMR, on a quarterly basis for the presence of antibodies against MAP (*Mycobacterium avium* subspecies *paratuberculosis*); the pathogen that causes Johne’s
- The frequent testing undertaken in HerdWise allows a Johne’s disease profile to be built up for every cow. These quarterly results are used to classify each cow using a traffic-light system, with repeatedly positive cows shown as red. This allows easy identification of high-risk cows
- Results are available to the vet and producer via NMR Herd Companion
- HerdWise results should be used as part of a veterinary-led Johne’s management plan
- The HerdWise Johne’s screening programme is CHCS (Cattle Health Certification Standards) accredited
- Fees for HerdWise depend on herd size and are adjusted monthly depending on number of cows in herd.

### Pregnancy testing

- An auto-selection procedure identifies the cows for testing every month, on the chosen day after service
- Animals can also be selected for testing on an ad-hoc basis
- Results are reported through NMR’s Herd Companion or can be emailed to the producer
- Purpose-designed ad-hoc sampling kits make this service available to all producers – NMR and non-NMR recorded cows
- The test measures Pregnancy Associated Glycoproteins (PAGs), which are produced in the placenta of pregnant cows
- PAGs are highly specific to pregnancy and start increasing from the point of conception
- The PAG test determines pregnancy with an accuracy of 98%
- The test can be used as early as 35 days after service although there can be foetal losses after this date
- Results are either positive, negative or inconclusive.
- Inconclusive results are retested at the next recording free of charge
- NMR charges £3.50 a test
- Ad-hoc kits of 10 samples are available, with an additional charge of £8.50 for the kit (P&P included).
- Discounts are available for larger volumes.

