Using milk samples to check pregnancy status and identify open (non-pregnant) cows in time to rebreed.

Use the test as part of your routine herd fertility program

- The test measures Pregnancy Associated Glycoproteins (PAGs) which are only produced in the presence of a foetus
- Around one in five cows may lose a pregnancy from 28 days post service. The test can be used to routinely check cows and detect pregnancy loss
- Use the test between 70-110 days after service to check pregnancy status in cows
- By working closely with your vet, the test can be used to complement your routine herd fertility program
- Used on cows worldwide - implement within your herd and close in on open cows
- Regular milk recording samples can be used. Alternatively we can provide boxes for ad-hoc sampling
How to use the milk pregnancy test:

The test can be used by regular Core Recording customers, Essential sampling customers, and Ad Hoc users.

- If routine core milk recording, the test can be scheduled to automatically test all eligible cows after service or calving, e.g. 70 days post service
- Or you can use one of our sample boxes if you want to send in samples from as many or as few cows outside of the milk recording
- Or cows can be picked manually on the milk recording program
- The test can be used at any time from 28 days after service and can be used as a check before dry off
- The results are automatically fed into Herd Companion and if you are a NMR recording herd the results will automatically update a cow’s status and the associated action lists
- Cows falling into the ‘Recheck’ area will be retested automatically at the next recording (core milk recording customers only). No charge for the retest
- No enrolment fee, no minimum or maximum number, and no commitment to monthly milk pregnancy testing

Understanding the test results

- The graph shows the typical range of normal PAG levels from over 1000 cows in our recent PAG test study (1)
- The red line shows the ‘cut-offs’ for the test. Milk samples with a result <0.10 are reported as ‘Not pregnant (open)’ and milk samples with a result >0.25 are reported as ‘Pregnant’
- PAGs are produced by cells in the placenta and levels decrease if the pregnancy is lost
- Samples that have a result between 0.10 and 0.25 are reported as ‘Recheck’ – this could indicate foetal loss accompanied by a fall in PAG levels
- We advise that cows with a negative or recheck PAG result, are examined by your vet at the next routine herd fertility visit

(1) Lyle R and others. Evaluation of the IDEXX Milk Pregnancy monitoring test in order to enhance an integrated, veterinary led herd reproduction management package. Cattle Practice 2018; 26:52-54
Bovine Milk Pregnancy Testing
Frequently Asked Questions

Do I need to take additional samples?
No. Any samples sent in for recording, disease testing and cell count can be used, so reducing cost and hassle in the milking parlour.

How do I identify which cows need a PAG test?
For core recording customers there are 2 options, Ad Hoc or Auto Select, which your milk recorder can set up for you.

Will I know how many cows will be tested each month?
The software used by the Milk Recorder will let you know how many cows have been selected, at the end of the recording.

Do I have to do anything prior to the service starting?
For core recording customers, we would recommend that you allocate some time with your NMR Area Field Manager to ensure that as much fertility data is recorded (Service and PD information), so that cows are not tested in error. We also encourage you to work with your vet to determine the optimum fertility management programme for your herd.

Does the test show how many days into gestation the cow is?
No. The test shows that the cow is pregnant, it gives no indication of the stage of gestation. So if a cow has been served several times, a decision on farm will need to be made to identify the correct service date to use, so that the correct drying off date is scheduled.

Does the quality of the milk sample affect the test result?
Poor quality samples may compromise the accuracy of the test result. Ensure the cow is correctly identified and milk carryover between samples is minimised (milk recording jars and attachments should be completely emptied between cows).

Does this mean we don’t need a vet to PD the cows?
No. The milk test is seen as an additional check to back up what happens already on the farm and to help identify cows that might have lost a pregnancy.

Does the milk test still detect PAGs after pregnancy loss or after abortion?
Yes. PAGs will circulate in milk for a certain period of time. PAG levels fall in a few days if a pregnancy is lost early in gestation and a few weeks if pregnancy is lost in late gestation.

Is this service 100% accurate?
The test can reliably confirm pregnancy in upwards of 95% of cows and can identify pregnancy loss in approx. 85% of cows if using the test at 70-110 days after service. (1)

Fertility Profit Pointers

- The average calving interval for NMR recorded herds is 405 days. What is your calving interval and what is your target?
- 80 day served rate: Target 60% served at 80 days
- 100 day in calf rate- target 45% cows pregnant at 100 days
- 200 day not in calf rate: target fewer than 30%

Core milk recording customers:
To enrol onto the milk pregnancy service please fill out the application form overleaf and return to your AFM, AC or milk recorder.

ES and Ad Hoc customers:
Please ask for a PAG test sample submission form from your AFM or NMR customer services. Please fill in and put in box with your samples.

(1) Lyle R and others. Evaluation of the IDEXX Milk Pregnancy monitoring test in order to enhance an integrated, veterinary led herd reproduction management package. Cattle Practice 2018; 26:52-54
How to enrol (Core Milk Recording customers only):

Please complete this pull out order form and hand it to your AFM, AC or milk recorder.

Bovine Milk Pregnancy Testing Enrolment Form

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Disclaimer

- Poor quality samples may compromise the accuracy of test results. Bronopol or a similar preservative may be used to maintain sample quality.

- Care should be taken to minimise the likelihood of milk carryover from cow to cow during the sample collection, particularly when using samples collected from routine herd recording. Please allow the person sampling time to drain the sampling attachment and dipper, removing residual milk from the previous animal.

- The results of this service are valid for the sample as received by the laboratory. No responsibility is accepted for incorrect results arising from sample misidentification or contamination prior to the receipt at the laboratory.

- We advise that cows with a negative or recheck PAG result, are examined by your vet at the next routine herd fertility visit.

- NMR plc will make every effort to ensure the service provided is of the highest quality, but accept no responsibility for the loss of farm income, through the misidentification, testing or reporting of the pregnancy test results.