

FT MULTILYSER S20: AUTOMATED PROGESTERONE ANALYSIS


Fraunhofer Institute
Biomedical
Engineering



MAKING THE MOST OF...

The profitability of your milk production significantly depends on your herd's fertility and reproductive performance. Making the most of heat detection is therefore one of the high-priority tasks of dairy cattle herd management.

Contrary to trends.

In recent years a declining herd fertility with increasing milk production and an increasing intensification and automation of the milk production were reported. The use of the automated progesterone analysis provides a feasible opportunity to counteract this trend.

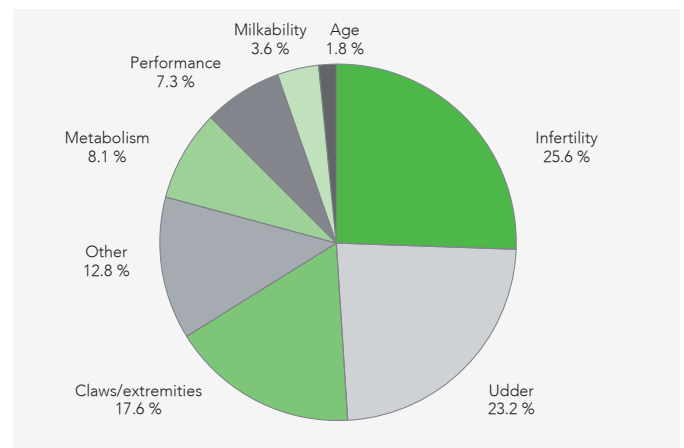
This test allows you to cost-efficiently, rapidly and reliably determine already on the 20th day after insemination whether a cow is in heat again or not.

Increasing heat detection.

The „return test“ allows for a considerable increase of heat detection for those cows which were not detected as being pregnant after the first insemination.



Special benefit of the FT Multilyser S20: No prior knowledge is required to achieve the result within a few minutes.



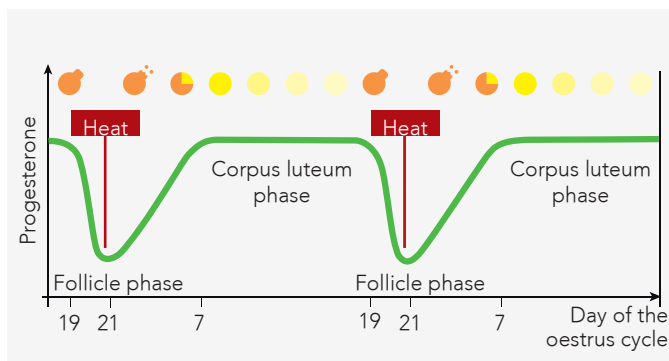
Cullings according to culling reasons (annual report VIT w.V. 2007)

At present, the German average shows that less than half of the heats is utilized for insemination. Beside the heat detection rate, the conception rates of 40% of the first insemination are the decisive cause of extended breeding windows. These non-productive times come with economic losses of 2.50 € to 4.50 € per extended open day.

Already more than 25% of all cullings are to be attributed to fertility problems, thus causing damages in the millions. The FT Multilyser S20 helps you to reduce them.

...HEAT DETECTION!

The progesterone hormone can be rapidly and cost-effectively detected in milk. As it is released solely by the corpus luteum, it definitely provides information about the ovarian function and the state of oestrus cycle.



Progesterone progression during 2 oestrus cycles.

Easier assessment of all values.

The assessments can be easily derived from the progesterone contents:

1. The first heat can be detected via a triple test on a 7-day basis. If the first heat is omitted, pathological alterations (e.g. follicle cyst) may be the reason for it. In that case, consult a veterinary as soon as possible.

2. A continuous heat documentation with progesterone analyses supports the more precise assessment of the optimum insemination time. This helps to eliminate to a large extent one of the main reasons for unsuccessful inseminations: untimely insemination.

3. The detection of corpus luteum cysts after a heat where no insemination took place.

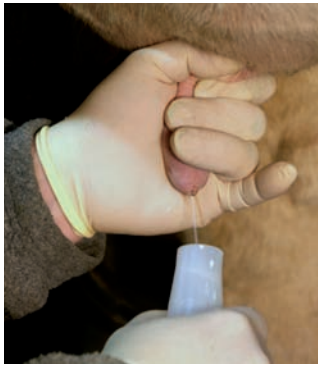
4. Already 7 days after an insemination, the ovulation (production of a functional corpus luteum) can be checked. If no ovulation took place, the FT Multilyser S20 shows a low progesterone value.

5. In case of hormonal treatments, the heat release can be prepared (check for corpus luteum) and monitored (drop of the progesterone level) via the progesterone analysis.

6. The „return test“ is one of the most important applications. It takes place via the progesterone analysis as of the 20th day after insemination and indicates when the cow is in heat again, i.e. non pregnant.

7. With 10 to 15 % of the successful inseminations, so-called false heats occur. If the progesterone level is high, reinsemination is not recommended, as this insemination cannot result in pregnancy anyway and only carries the inherent danger of rejecting the existing fetus.

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Sampling in the milking parlor.

Just try it.

To carry out the test, solely a post-milking sample and 2 to 3 minutes time are required.

The assay procedure is all-automatic and needs not to be monitored.

During milking up to 20 milk samples can be collected in a sample rack. Thanks to the delivered preservative pill, the samples will be preserved, also uncooled, for at least 24 hours.



Always accurate: with 1 or 20 samples.

Simply all-automatic.

After milking, the rack with up to 20 samples must be placed into the FT Multilyser S20. As soon as the assay procedure is started, all samples are all-automatically checked and evaluated.

The results can be displayed and stored for each individual cow on the hand-held terminal or transferred to a PC. The FT Multilyser S20 automatically records all assay procedures on the delivered USB stick.



The progesterone contents under control.

FT Multilyser S20 can also be used without need of being connected to a PC or milking technology. This mobile application is particularly beneficial to expert advisers or veterinarians. Test it and make the most of heat detection.

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