Proactive herd management
Peace of mind – Herd Navigator shows you the way to improve herd performance and profitability, empowering you to stay competitive as a professional farmer in the dairy business.

You want to fight cow diseases as early as possible to prevent serious problems, but you lack a smart tool to help you navigate through them. You want to do everything possible to improve animal welfare and product quality, but you are drowning in workload. You want to know that your investment is worth making and the return is quick and measurable.

Set your sights on Herd Navigator™ to support your drive for quality dairying.

Herd Navigator monitors your herd automatically, day by day, analysing the milk produced on farm. Herd Navigator dramatically improves three key areas:

- Reproduction
- Mastitis detection
- Ketosis detection

This ensures early identification of cows needing special attention – with clear information on the action to take, based on the data. Herd Navigator is delivered with customer training at start up and continuous biological advisory service.

And now, with the newest upgrade, a single Herd Navigator can monitor milk from up to eight VMS stations.

Herd Navigator supports you in making the most of your cows’ potential, to optimize your dairy herd performance and reduce costs.

Herd Navigator has achieved astonishing results* in terms of productivity and profitability. This is due to the system’s accuracy that enables precise and early action to be taken for better herd health. Automated solutions make your farm more profitable, without the hard work. That’s what we call Smart Farming. One of our core areas is herd management.

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<table>
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<tr>
<th>Focus area</th>
<th>Parameter analysed in milk</th>
<th>Herd Navigator identifies</th>
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<td>Reproduction</td>
<td>Progesterone</td>
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<td>Likelihood of success at insemination</td>
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<td>Cysts</td>
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<td>Anoestrus</td>
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<td>Udder health</td>
<td>LDH – lactate dehydrogenase</td>
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<td>Feeding and energy</td>
<td>BHB – beta hydroxybutyrate</td>
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<td>Subclinical ketosis</td>
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<td>Secondary metabolic disorders</td>
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Herd Navigator provides the opportunity to improve economic results by EUR 250 per cow per year, by optimizing the performance of each individual cow in reproduction, udder health and feeding. The system helps to improve the herd manager’s daily overview of the dairy herd. It delivers clear information so farmers can take early quick action on disease indications; and it is right on the spot when it comes to heat detection and time for insemination.

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*Data source: 4 test and 5 commercial farms in Denmark and the Netherlands running Herd Navigator, 2009.
Successful reproduction

“Herd Navigator never lies about the level of progesterone – if you’ve got silent cows you can still inseminate them.”
Husband and wife team Bert and Monique Middag dairy farmers in Wapse, Holland.

Heat detection rates of at least 95% are reported on Herd Navigator farms. Pregnancy rates also increased significantly in a very short time: up to 50%.

**Automatic progesterone test**
Herd Navigator automatically measures the level of progesterone in milk – the “gold standard” for reproductive status. It indicates heat and the right insemination time, lists animals for final pregnancy confirmation, indicates early abortion and lists the cows with risk for cysts and prolonged anoestrus.

With Herd Navigator less time is spent on monitoring heats for you or your team – saving time for other important activities. What once took an hour or two is now done best in ten minutes.

A number of Herd Navigator farmers have stopped performing manual pregnancy tests and fully trust their Herd Navigator instead.

Herd Navigator helps you to reduce open days, optimize calving intervals and improve insemination success. It all adds up to significant savings and efficiencies.

Reproduction status – progesterone profile chart

![Graph showing progesterone levels and key stages in the reproductive cycle.](image-url)
Fighting disease at an early stage

“Herd Navigator from DeLaval started saving us money from the very first day, quickly paying back on the investment in terms of better heat detection and pinpointing mastitis risk before it happened.”

Brothers Rinze and Jurjen Wassenaar, running a dairy farm in Menaldum, northern Holland.

Herd Navigator is able to detect acute mastitis before physical signs are visible.

Udder health – mastitis

Each undetected case of mastitis may cost up to EUR 240 in milk losses. But how can you effectively screen your herd?

Herd Navigator does the job for you

Herd Navigator automatically measures lactate dehydrogenase (LDH) in milk. The enzyme LDH is highly correlated to somatic cell counts and is closely linked to the presence of mastitis. As levels of LDH rise rapidly when an infection starts, measuring this with Herd Navigator means an infection can be detected before it is clearly visible.

Automatic monitoring and analysis by Herd Navigator, sampling the right cows during their specific risk periods, identifies which cows need to be checked or treated. You are able to take proactive action – before severe mastitis develops. And with the time saved, you’ll be able to work on preventive strategies against mastitis pathogens.
“A huge step forward in managing my herd that easily and quickly helps me identify which cows need special attention.”

Feike Tamsma, dairy farmer in Janum, northern Holland.

Herd Navigator™ detects early signs of ketosis. Detection of previously unobserved cases of ketosis has a considerable effect on milk production. With immediate treatment to avoid clinical ketosis, the system can help prevent milk losses of up to 600 kg milk per cow per lactation.

Subclinical ketosis is caused by a negative energy balance shortly before and during the first weeks of lactation. Herd Navigator automatically monitors your herd – the right cows at the right time, when they are most susceptible. The indicator used is BHb – beta hydroxybutyrate.

Herd Navigator identifies all cows at risk of ketosis so you can act early and proactively, to prevent a loss in milk production. Substantial savings occur thanks to proactive management, better handling of ketosis cows and ongoing improvements in feeding routines.
“Combining our DeLaval VMS with a Herd Navigator from DeLaval has given our farm the perfect tool for optimising productivity and reproduction.” Husband and wife team Bert and Monique Middag dairy farmers in Wapse, Holland.

The technique behind Herd Navigator™

Herd Navigator is not just an advanced milk analysis tool. It also provides clear recommendations about what action you should take.

While the cows are being milked, representative milk samples are taken simultaneously from different milking points and sent, one-by-one to the analyser instrument. The system automatically selects, via a sophisticated biological model, which cows to sample at which milking session and for which parameters. The analytical results are processed in the biological model and displayed in your dairy herd management system.

Herd Navigator support:

- Easy to use software integrated into the herd management program.
- Well arranged attention lists and graphs for all animals in need of special attention.
- Preset action proposals for the “attention” cows (standard operating procedures – SOP).
- Functionality to develop your own treatment schedule, which you may choose to do with support from your local veterinarian or advisor.
- Connect with the experts: if you choose, your veterinarian and advisory service may access your dairy management data remotely to provide advice, quickly and efficiently, based on real time data from your herd.
- You and your advisors receive in-depth training to maximize the benefits from your Herd Navigator management solution.

Herd Navigator from DeLaval is your proactive herd management system that delivers you up-to-the-minute information and advice on what action to take to improve cow reproduction and health.

- Detects heat by measuring progesterone
  Early detection of silent heat, heat, pregnancy, abortion, follicular and luteal cysts, and prolonged anoestrus.

- Detects mastitis by measuring LDH, lactate dehydrogenase
  Early detection of acute mastitis.

- Detects ketosis by measuring BHB, beta-hydroxybutyrate
  Early detection of subclinical ketosis, ketosis, metabolic diseases.

A Herd Navigator from DeLaval gives you the real-time advice you need to treat a cow at risk before it gets mastitis or ketosis. And the information given provides you better control, improving your reproduction and health management. And now, with the newest upgrade, a single Herd Navigator can analyse milk samples from up to eight VMS stations.
**Combined peak competences**

Herd Navigator™, the first product of the FOSS & DeLaval Solutions brand, has been developed by FOSS A/S and DeLaval International AB, in close co-operation with the Faculty of Agricultural Sciences at Aarhus University and the Danish Cattle Federation.

FOSS helps the milk and dairy industry to keep pace with their analysis demands. FOSS dedicated analytical solutions have proven significant for dairy herd improvement, raw milk testing, standardization in dairy production and verification of end-product quality. FOSS has been the market leader within this area for 50 years.

DeLaval develops and supplies milking and other farm equipment for dairy cows, sheep, goat, and buffalo farming. DeLaval drives progress in milk production by recognizing and serving farmers’ needs. DeLaval delivers complete solutions to empower their customers and give them better control of their business.

Specially trained local veterinarians or advisors support the solution with education, application and advisory services to ensure a thorough introduction to the system and best utilization of all the herd improvement potential offered by Herd Navigator.

**The power of three**

These peak competences together have created the unique Herd Navigator™ as a complete dairy management solution.

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**Herd Navigator™ is part of the DeLaval commitment to Sustainable Dairy Farming: solutions that meet environmental challenges, respect animal welfare and benefit customers and society.**