



GEA CowScout

Fertility and Health Detection



Including Rumination
Times



COWSCOUT

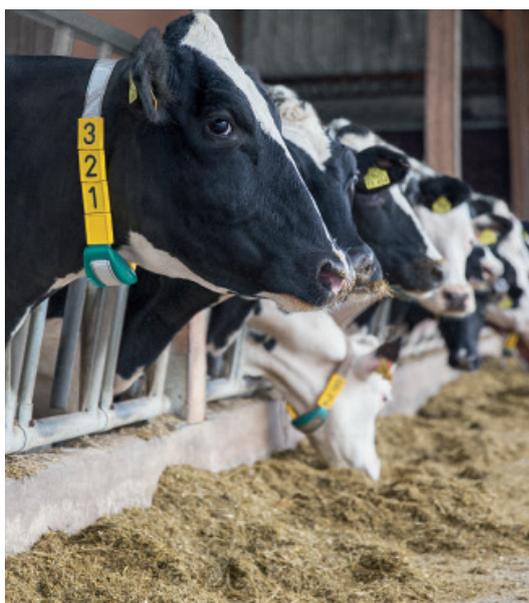
monitors your cows comfortably and safely,
so you do not have to: Around the clock,
day and night.

Fertile times and healthy cows

Reduce reproduction costs and optimise your cow management while simultaneously increasing the economic success of your milk production.

CowScout reliably tells you when your cows are ready for insemination. Convenient alert functions ensure that you never miss an activity report. This means: You and your employees always have the latest information about your cows' fertility. CowScout allows you to react in real-time! Whether on the cow's neck or leg, CowScout watches over them, day in, day out. A sensor monitors the animal's

movement at all times and reports measured activity to the processing unit via antennas at frequent, regular intervals. The unit then analyses all of the data. It shows you any periods of high activity for each individual animal. This gives you an excellent basis for successful fertility management!



CowScout neck and leg tags with connection to DMS 21/DairyPlan.

CowScout Neck

Keeping feeding under control – optimise both fertility management and feeding management for your herd

Heat detection

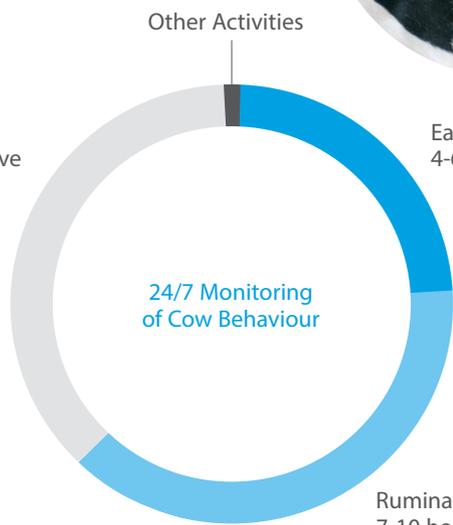
The CowScout neck tag works 24/7 to monitor cow activity by identifying neck movements, such as sniffing and chin resting that indicate if a cow is in heat. With this real-time data, cows in heat can be properly identified, allowing for improved insemination results, higher pregnancy rates, shorter calving intervals and reduced insemination costs – all with lower labor inputs.

Eating and rumination time

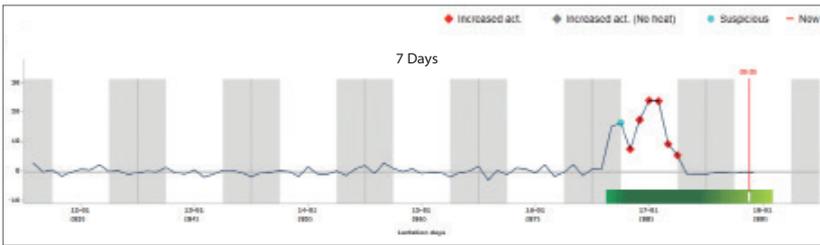
The CowScout neck tag detects specific movement patterns related to forage intake, recording the time individual cows spend eating. It also records when the animal is regurgitating food and resting peacefully and measures her rumination time. Changes in eating and rumination behavior as well

as measurements of activity versus inactivity, may indicate potential health problems. The alert function tells you immediately if the cow is exhibiting feeding or health problems so that you can react quickly and appropriately. Having both eating and rumination time data allows you to identify sick cows early – helping to minimise treatment costs and drops in milk production.

The best basis to review and maintain long-term high performance!

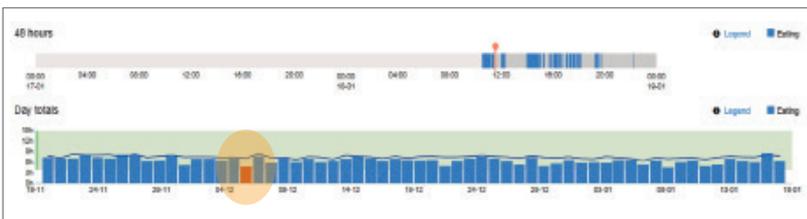


Eating and rumination times combined with inactive times offers the most accurate data for early detection of health problems.



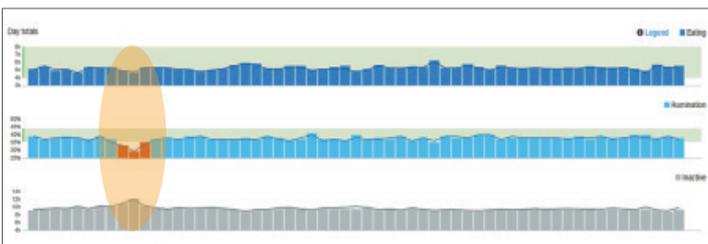
Example: Heat Detection

At first, a suspicious alert (based on 2 x 2 h increased activity) was generated for the cow, which later changed to an alert for actual increased activity (based on 3 x 2 h increased activity). The green bar indicates the optimum insemination time. Here, the cow should have ideally already been inseminated.



Example: Individual eating time

This cow is spending a significantly reduced eating time compared to previous days and has therefore caused an alert. An immediate professional check of this cow, which calved recently, identifies the early stages of ketosis. If the cow is treated immediately, it can recover quickly.



Example: Group eating and rumination time

A group of cows is spending less time eating. Rumination decreased and inactivity increased indicating an error in feed composition. The farm should adjust the TMR ration.



CowScout Leg

Active and vital – Determine the ideal time for insemination and optimise your husbandry conditions

Heat detection

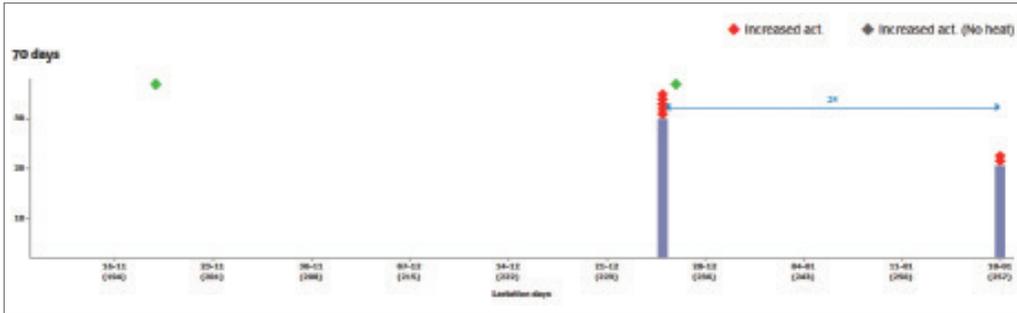
The CowScout leg tag monitors cow movements that indicate if a cow is in heat – 24/7. With this real-time data, cows in heat can be accurately identified allowing for improved insemination results, higher pregnancy rates, shorter calving intervals and reduced insemination costs – all with a decrease of labor input.

Standing, lying and walking time

CowScout Leg shows you how mobile your animals are. Cow movement and behavior monitoring can provide key insights to improve herd health and your farm's management strategies. The CowScout leg tag continually monitors a cow's five daily behaviors: (1) standing time, (2) lying time, (3) walking time, (4) stand-up count and (5) step count. If the cow displays increased or decreased activity, CowScout Leg sends you an alert. Changes from her average measurement of normal behavior will help you determine whether she needs further attention and enables you to treat any health problems quickly – before it impacts her health and production.

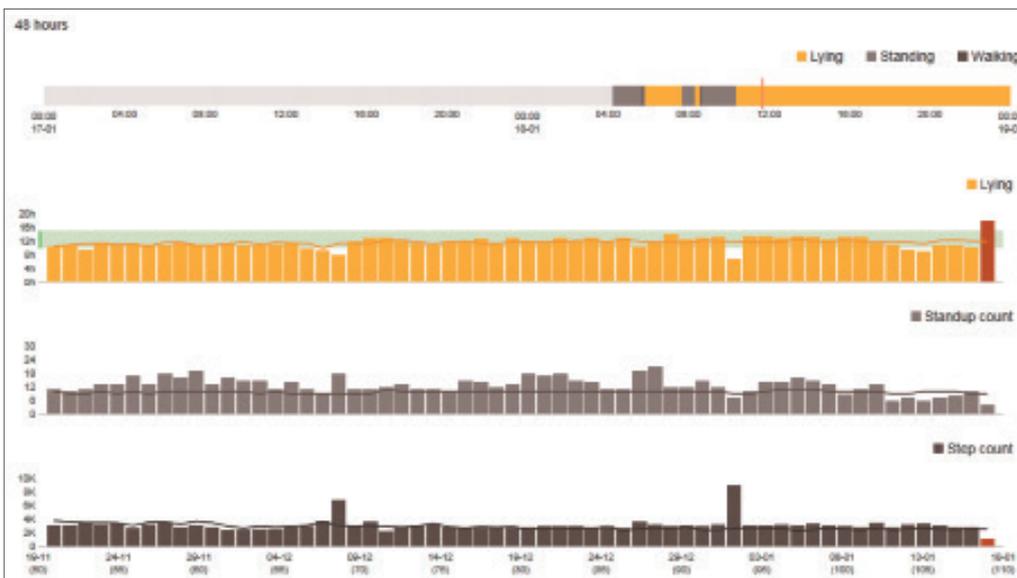
The best foundation for healthy and long-living cows!





Example: Heat Detection

Activity of the individual animals during the last 70 days: The first green symbol represents an insemination performed without any indication of increased activity and was therefore not successful. The second insemination was carried out shortly after the alert. As the cow demonstrates increased activity again in a 24 day cycle, the second insemination also appears to have been unsuccessful. This cow should now be inseminated immediately for better results.



Example: Individual standing, lying and walking time

A cow presenting substantially increased lying times and a reduction in the number of steps - both these anomalies generate an alert. Checks on this cow indicates that this change in behaviour is due to growth in its right rear leg. The cow should be seen by a hoof trimmer immediately.



Following your cows at every turn allows for comprehensive monitoring and an instant reaction.

Around the clock...

With an internet connection and your PC, laptop, tablet or smartphone, you can gain an insight into the current reproduction data, eating and rumination times as well as the mobility of your animals.

If desired, CowScout can send the respective alerts directly to you, your staff or insemination technician via e-mail. This ensures that all parties always have the latest information.

...everything at a glance

- Constant heat monitoring and display of the optimal insemination time
- Notification of reduced eating and rumination times to enable early detection e.g. of health problems
- Displays time spent lying, standing and walking to enable early detection of health problems or problems with the husbandry conditions
- Reliable animal identification in the milking parlour, selection system and feeding box with proven and reliable ISO technology
- Stand-alone system for flexible use independent of the ISO ID
- Internet connection means that data can be accessed anytime and anywhere
- Clear, easy to understand graphical displays of activities, eating times and lactation phases on the web portal



Straight from the animal
to the screen

Access the latest data on your mobile devices.



With CowScout, you can see higher activity promptly and increase your chances of a successful insemination. You save both time and money!

Successes with CowScout

They are convinced and so are we!



Christophe Meunier
GAEC du Haut Forez, France

“Before we had CowScout, a visual detection was necessary 3 times a day, in the morning – at noon – in the evening, which took a lot of time. CowScout ensures better heat detection and a more successful reproduction management. We are already noticing a reduction in the calving interval and earlier insemination after calving is possible. As far as feed intake is concerned, the system allows us to detect eating disorders at the right moment. Metabolic problems caused by foreign substances in particular can be prevented, as we are able to react quickly. Thanks to CowScout, heat detection time is reduced and feeding disorders are detected early.”



Luke McNab
Tasmac, Australia

“We installed CowScout in conjunction with our robotic dairy. After using CowScout we are confident with the accuracy of the heat detection. As we spend less time in the dairy with our cows we rely solely on CowScout for heat detection.

The eating time data also allows us to detect any unwell cows before they visibly present as unwell. We highly recommend CowScout for both conventional and robotic dairy farming systems.”

Luke McNab
Tasmac, Australia



Andreas Kraus
Kraus GbR, Germany

"In the past, heat detection was only carried out by visual inspection and many things were therefore overlooked. Now, we only pay attention to the CowScout data. Especially cows that look healthy, but consume less food. With CowScout, we can react faster and take counteractions. The data are also absolutely reliable for heat detection. The exact time of insemination is reliably determined."



Richard Tenbrinke
Gracemar Farms, USA

"We installed CowScout a few months before our automated rotary parlor was up and running. The eating time feature is very nice: if a cow isn't eating, we get an alarm to our phone so I can look at her. The system reads every two hours, so you get more accurate heats. I can log in from my phone at any time and click on a cow to find everything I need to know about her."

The right system for every farm:

CowScout I

with integrated animal recognition function for connecting to a herd management system.

CowScout S

for operations without a herd management system or where electronic animal recognition systems are already in place.





We live our values.

Excellence · Passion · Integrity · Responsibility · GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is included in selected MSCI Global Sustainability Indexes.

GEA Australia

47 Northgate Drive
Thomastown, Victoria 3074

Tel. +61 3 8877 9999
Fax. +61 3 9464 5455

www.gea.com