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Unlocking Dairy Farm Success: Harnessing the Power of Cow Data with Herd Monitoring Systems

From Health and Fertility to Nutrition, CowManager® Leads the Way in Cutting-Edge Technology

Extracted from Interview with Elizabeth Zeigler, Reproductive & Monitoring Systems Specialist at Premier Select Sires.

In the vast world of dairy farming, cows' ears hold the key to a wealth of valuable data. Using a herd monitoring system on cows' ears helps harness data to turn it into actionable insights regarding the health, fertility, and nutrition of the herd.

A cow activity monitoring system provides farmers and consultants with a reliable, real-time set of eyes on the farm. Monitoring systems have improved significantly in recent years, offering more reliable and timely data. Obtaining data on heat detection or health changes can be extremely useful. For example, heat detection can provide a better understanding of herd fertility in between herd vet checks. Also, health monitoring can relay which cows are starting to develop symptoms early on, leading to increased monitoring for the herd. Usually, by the time symptoms become visible the issue has been present for several days. Early detection gives the opportunity for earlier intervention and treatments. These monitoring systems can also be helpful to track cow stress in pen moves or in pen overcrowding situations.

If we see a pattern of some negative behavior, the consultant and farmer have much more information available to identify what is going on in the cow's world and what can be done to correct the issue. Things like monitoring feed changes or the impact on the cow following a management change are where cow management systems can truly help farmers and consultants.

The benefits are many, but having a system does add cost. Some considerations to this are identifying how much expense should be saved if a cow activity monitoring system would be used. If the value added through the addition and use of a system is realistic, then a monitoring system would be good to consider. CowManager® is an example of a herd monitoring system and is explained in more detail.

A Leader in Technology

CowManager® invented the first ear sensors for cows and the system has been a frontrunner in activity monitoring ever since. CowManager's unique ear sensor fits around an RFID tag. It measures ear temperature combined with behavior, resulting in more accurate and earlier alerts. The electronic ear tag carries a battery designed to last approximately 5 years. Included in the subscription fee is a warranty that includes exchanging dead eartags for new eartags. Ear tags can be removed and/or changed from animal to animal, offering flexibility in data collection and management. Suitable for youngstock and cows, this herd monitoring technology offers its most accurate results when used in free-stall systems.

How It Works.

Initiated by the attachment of the tracker to the cow's ear, the system starts the meticulous collection of readings from the integrated accelerometer. The cow's movement data is then seamlessly transmitted to a processor, where a thorough sorting of each data point occurs. Through a sophisticated conversion and linking process, these data points are associated with typical cow behaviors related to movement. This information is delivered in real-time to a user-friendly dashboard. This management dashboard, in turn, provides the farmer with a comprehensive view of the cow's activities throughout each day, empowering informed decision-making in the management of the herd.

CowManager requires internet at a computer somewhere on the farm, but internet coverage in the barn is not necessary. Data may be viewed on any computer through the web application or the CowManager app on any phone or tablet. The CowManager app is easy to navigate and works on both Androids and iPhones.

Choose a Path to Efficiency and Profitability

CowManager has three available modules:

Fertility Monitoring Module:

- Benefit from features that enable precise tracking of cows' fertility cycles.
- Receive timely alerts for optimal insemination opportunities.
- Receive insights into heat detection, pregnancy status, and potential reproductive issues.

Health Management Module:

- Benefit from early detection of health issues.
- Receive alerts 1 to 2 days before any signs of clinical illness, or monitor the recovery of sick cows in detail.
- Receive alerts related to changes in behavior, reduced feed intake, or abnormal temperature variations.
- Monitor a cow's health status in detail to aid in quick intervention and recovery.

Nutrition Insights Module:

- Gain in-depth insights into cow nutrition and well-being at both individual and group levels.
- Prevent heat stress, diseases, and nutritional disorders.
- Ensure the system aids in optimizing feed management and achieving herd nutritional goals.

Easy to use.

Whether the herd consists of 20 or 20,000 cows, and whether the cows are barn or pasture-based, CowManager is suitable for any size and style of herd management. The local authorized distributor, Premier Select Sires, can assist customers in downloading the herd monitoring system, installing the routers on the farm, activating the sensors, and providing follow up support. From there, it's just "plug-and-play". Customers can gain real-time insights via their computer or mobile device.

CowManager implements continuous system enhancements through over-the-air programming, with staff members available for tech support when needed. Customers can also use the Multiview feature to provide employees, vets, nutritionists, and other advisors access to selected real-time data.

Cost Considerations

Reproduction Management: Effective reproduction management is crucial in dairy operations, as the inability of heifers to conceive can result in significant financial implications. The current estimated daily cost associated with nonbred heifers ranges between \$2.90 and \$3, reflecting the expenses incurred in maintaining non-productive animals. Moreover, when cows surpass 100 days in milk without successful breeding, the costs escalate to a range of \$4 to \$5 per day.

Early identification of non-breeders is crucial to mitigating these financial burdens. Implementing a robust notification system that promptly alerts dairy farmers about heifers and cows that have not been bred allows for timely intervention. By addressing reproductive challenges early on, the dairy can significantly reduce the associated daily costs. Moreover, increasing pregnancy rates not only boosts the overall productivity of the herd but also serves as a direct cost-saving measure.

Health Management: Identifying cows with subclinical symptoms at an early stage is instrumental in implementing prompt corrective measures and treatment therapies. Using CowManager as part of a health management system enables quicker and more effective intervention to prevent escalation of health issues. Thus, it helps reduce the likelihood of cows succumbing to severe illnesses, leading to fewer instances of mortality within the herd. The implementation of timely treatments ensures cows spend less time on prolonged therapies, minimizing the financial strain associated with extended medical care.

Ultimately, by identifying and addressing health issues promptly, dairy farmers can prevent the premature culling of cows from the herd. Many health-related departures can be avoided if the root causes are detected and addressed in the early stages. This not only preserves the size of the herd but also contributes to the overall longevity and sustainability of the dairy operation.

To learn more about CowManager® or to get a quote, contact your local Premier Select Sires representative at TEL 717-926-9320 and EMAIL ezeigler@premierselect.com



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