



SMARTBOW

**THE MOST ADVANCED DAIRY
COW MONITORING SYSTEM**

With SMARTBOW® technology from Zoetis, the world's leading animal health company, you and your veterinarian have access to real-time, 24/7, individual cow insights. The intelligent SMARTBOW ear tag monitors the rumination and activity of each cow to deliver health and heat alerts to prevent, detect and treat animal health issues in your dairy – ultimately leading you to better outcomes.

EARLY DETECTION = BETTER OUTCOMES



INDUSTRY-LEADING RUMINATION MONITORING

A cow's ear shows a very distinctive and recurring movement pattern while ruminating. By detecting these characteristic movements, SMARTBOW can analyze the rumination activity and delivers insights regarding a cow's health status. SMARTBOW technology provides the most accurate rumination monitoring in the industry, 97% to 99% accuracy,^{2,3} and delivers two types of rumination alerts – an urgent decline in rumination and a long-term decline in rumination.

FEATURES

- Identify health issues and diseases earlier
- Enhance intervention success
- Optimize herd management and animal well-being
- Reduce illness-related losses and culling costs



UNPARALLELED HEAT DETECTION

SMARTBOW allows precise detection of heat through changes in behavior and animal activity. The system trains itself over time, based on each individual cow's behavior patterns. For that reason, heats can be detected with a reliability of 97% which generates alarms on smartphones, tablets and desktop computers.¹

FEATURES

- Increase your insemination successes
- Effectively identify a cow in heat
- Reduce your reproduction costs
- Decrease the amount of labor needed for successful reproduction



TRULY REAL-TIME LOCALIZATION

SMARTBOW collects each of your cow's location 24 hours a day, 7 days a week and sends information to your server. This allows individual animal position and movement to be continuously tracked.

FEATURES

- Find animals quickly and easily
- Locate animals in real time
- Track individual cow movements
- Quickly locate cows that need attention



BETTER INSIGHTS FOR MORE CONFIDENT MANAGEMENT DECISIONS

Looking after individual dairy cow performance to achieve more milk, better reproduction, lower disease incidence and better milk quality takes time. SMARTBOW® technology works harder to deliver the best insights so you can make highly confident operational management decisions in real time.

IMPROVE ANIMAL HEALTH, INCREASE PRODUCTION

24/7 monitoring of your animals helps you ensure they stay healthy through early detection of illness as well as maximizing reproduction with precise heat detection. The SMARTBOW system provides improved cow well-being for a healthier herd, better reproduction and a more efficient farm.

BETTER INSIGHTS, BETTER DECISIONS

Through this advanced artificial intelligence system, you gain **better, truly real-time insights** on dairy cow heat and health, so you can make management decisions with confidence.

EFFICIENTLY MANAGE LABOR, SAVE TIME

There's never a shortage of work to do on your dairy farm. Unfortunately, it's not always easy to find the labor you need. SMARTBOW can help you better manage labor by monitoring your cows every minute of every day.

HOW IS SMARTBOW SO EFFECTIVE?



Intelligent ear tag
collects data



Indoor receiver
transmits data



Farm-based server
analyzes data



Accurate alerts
delivered to devices



PARTNER WITH US

We invite you to partner with Zoetis to develop your dairy's customized SMARTBOW® system. At each step — from system installation to optimization — we'll provide continuous service and support to optimize SMARTBOW for improved outcomes on your dairy. Applying SMARTBOW on your dairy is an exciting and interactive process, and Zoetis will be with you every step of the way.

Contact your Zoetis representative today to learn more about SMARTBOW and how you can apply this technology to move your dairy forward.

zoetis SMARTBOW®

¹ Schweinzer V, Lidauer L, Berger A, et al. Evaluation of the ear-tag sensor system SMARTBOW for detecting estrus events in indoor housed dairy cows, in *Proceedings. Intl Conf Precision Ag* 2018.

² Reiter S, Sattlecker G, Lidauer L, et al. Evaluation of an ear-tag-based accelerometer for monitoring rumination in dairy cows. *J Dairy Sci.* 2018;101(4):3398-3411.

³ Borchers MR, Chang YM, Tsai IC, Wadsworth BA, Bewley JM. A validation of technologies monitoring dairy cow feeding, ruminating, and lying behaviors. *J Dairy Sci.* 2016;99(9):7458-7466.

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