



"I start every day by checking the report sent to me automatically by the Allflex Heatime® Pro System. With this protocol, I know which cows should be bred today, and which cows I should pay more attention to today."

Du HongJiang, Farm Breeding Executive, DFI.

Core Work System of Farm Management: Reproduction, Veterinary and Nutrition

BACKGROUND

Nestlé Dairy Farming Institute (DFI), covering an area of 600,000 square meters, contains a demonstration farm and a training center. The training institute began operation in October 2014, with more than 1300 cows, and two 20-stall parallel parlors. Allflex Livestock Intelligence began cooperation with Nestlé DFI in 2014.

CHALLENGES

As a demonstration farm, Nestlé DFI committed to demonstrating and guiding modern dairy farming, to standardize production across the whole production chain. In order to minimize breeding costs, the real estrus status of cows needs to be accurately monitored. Additionally, to increase profits, farms need to monitor health problems in a timely way and optimize nutrition programs. Dairy farms also need to improve milking efficiency, standardize the work of milking personnel, and reduce the incidence of teat-end hyperkeratosis and mastitis caused by milking equipment.

AT A GLANCE

Company: Nestlé Dairy Farming Institute (DFI)
Location: Shuangcheng, Harbin, Heilongjiang Province
Herd size: 1300+ cows, including 691 lactating cows
Challenges

- Reduce breeding costs, promptly diagnose health problems, and optimize nutrition programs
- Improve milking efficiency, standardize milking teams' work, reduce teat-end hyperkeratosis and mastitis

System

- Allflex Heatime® Pro System with HRLDn tags for real-time heat detection and health monitoring
- Allflex DataFlow II System for real-time herd management system
- ED200 milking points for an optimized milking workflow

Benefits

- The 21-day pregnancy rate increased to 31% and heat detection rate increased to 73%
- In summer, the 21-day pregnant risk is 5-6% higher than the same period last year
- Nutrition has been optimized for different herds
- Diseases are identified 0.5-3.7 days before clinical symptoms are diagnosed
- Culling rates have decreased to about 3% of the herd
- Teat-end hyperkeratosis has been eliminated
- Average daily yield is now 40kg per cow per day and average days in milking is 182 days
- Average milking time is now about 4 minutes, with up to 50% of milk in the first 2 minutes



SYSTEM

The Allflex Heatime® Pro System was introduced to DFI in 2014. HRLDn neck tags are placed on 12-month heifers, and today are worn by more than 1000 cows. The Allflex Data Flow II System was introduced in 2018, along with ED200 milking points.

BENEFITS

At DFI, cows are bred once a day. Every morning, farm staff check the Cows in Heat Report in the Allflex Heatime® Pro system, and look at those cows' activity and rumination graphs to make a breeding list. A synchronization procedure is done on all the cows at the initial breeding, and then timed AI is performed at DIM 60. With this system, DFI has raised the 21-day conception rate of adult cows rise to 31%, and the heat detection rate to 73%.

Likewise, by following the health report, the veterinarian makes a list of cows to check, then treats them or takes preventative measures. This protocol replaces traditional detection and exploration methods, which were time-consuming and typically not very accurate. Now, because they can detect diseases early on, in many cases before clinical signs appear, most treatment work has been shifted to prevention.

The Allflex system has helped DFI optimize different nutritional solutions for different groups. The feeding department constantly evaluates the stability of the TMR formula over time by reviewing the rumination curve and group stability graph, and adjusts the formula accordingly.

By checking the proportion of heavy breathing in the Heat Stress Module, and combining it with the THI data of every group, the DFI team is able to proactively adjust heat abatement measures, turning fans and sprayers on or off in each barn. The farm has been able to meet its "one barn, one key" management goal, improving cows' comfort, and reducing the economic losses caused by summer heat stress.

The Allflex system enhances multiple aspects of farm management. The system can automatically generate and send reports, according to the content settings and other parameters set by the farmer. Farm owners can keep track of work, and store a wide range of information in different categories, which greatly improves farm management efficiency.

Milking automation helps prevent teat diseases such as hyperkeratosis and mastitis by ensuring correct milking preparation and operation. And the system also helps with farm management decisions. Using the milking preparation efficiency curve displayed by the Allflex Data Flow II System, each shift's milking preparation performance can be quickly evaluated, and double peak (bimodal) milking can be corrected quickly. Additionally, using the group milking efficiency report, managers can analyze the stability of milking shift and consistency over time, and thus assess the milking team's effectiveness and efficiency.



About Allflex Livestock Intelligence

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Allflex Livestock Intelligence, part of MSD Animal Health, is the world leader in the design, development, manufacturing and delivery of solutions for animal identification, monitoring and traceability. Our solutions empower farmers to act in a timely manner, to safeguard their animals' health, while achieving optimal production outcomes for a healthy food supply.

Through its commitment to the Science of Healthier Animals®, MSD Animal Health offers veterinarians, farmers, pet owners and governments one of the widest ranges of veterinary pharmaceuticals, vaccines and health management solutions and services. Merck Animal Health is dedicated to preserving and improving the health, well-being and performance of animals and the people who care for them.

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