



# Pilot Herd Case Study

Four Star Dairy, formerly known as Erickson Dairy Farms, Inc., was purchased by Wallace Erickson in 1946 and began as a small tie-stall operation. Over time, Wallace's son Roger took over the farm and expanded the dairy to a 770-cow operation and 1,200 acres of land. Roger currently owns and operates the dairy with his three sons Travis, Tyler and Tony and employs 14 people, including herd manager Maria Meyer and assistant herd manager Gary Erickson. Both Maria and Gary are instrumental in the daily use of Radio Frequency Identification RFID technology. Current herd average is just over 28,000 pounds of milk with a daily tank average of 90.3 pounds per cow. Besides the main dairy site, which includes a free stall barn, double-10 milking parlor and separate maternity barn, milking cows are also housed in a tie-stall barn two miles away from the main dairy, which maintains its own premises registration.

## Premises Registration

Maria initially registered the premises online in October 2005, prior to the

Wisconsin Livestock Premises Registration Act taking effect in January 2006. The premises registration has been updated each year since.

In May 2007, Four Star Dairy began implementing RFID technology by tagging all newborn calves with RFID tags. The dairy utilizes both RFID tags and visible tags with management numbers, which they purchase through Genex/CRI. Maria said the younger calves are easier to tag and that tagging the calves allows the staff to track their movement when they leave the dairy to be grown at a heifer-raising facility in Owen-Withsee, Wis. All heifer calves stay at the main dairy until 2.5 months of age before being transferred to a heifer-raising facility exclusive to Four Star Dairy. The calves remain at the heifer-raising facility until 8 months of age, when they are brought back to the main site. Every three weeks, cattle are transported to and from the heifer-raising. The first group of heifer calves to be tagged on the farm with RFID tags is currently entering breeding age.

Upon realizing the versatile uses of RFID tags within their herd management practices, Four Star Dairy decided to tag the cows as well. As of June 2008, every animal on the dairy was identified with an 840 RFID tag.

## Identification System

Four Star Dairy utilizes Dairy Quest for their herd management and data recording, in conjunction with an Allflex RFID reader and small laptop computer, which are used for conducting veterinary checks, recording breeding information, administering

*“RFID really ties all aspects of the dairy together. Even when a cow leaves here she is tracked through the local equity. The RFID is with her forever.”*

*– Maria Meyer,  
Four Star Dairy  
Herd Manager*



## Top 3 advantages of current system

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| 1. Herd treatment protocol compliance     |
| 2. Accuracy and completeness of herd data |
| 3. Time savings                           |

vaccinations, scheduling hoof trimmings and validating cow pen numbers in the free stall facility. The herd managers wear a harness that carries the light-weight laptop computer, which takes the place of the Palm device used by other dairies. Data recorded from the RFID reader wand is transmitted wirelessly to the laptop computer. Four Star employees wanted to have all reports and individual cow statistics at their fingertips and they felt the Palm limited the remote accessibility of this information.

Four Star Dairy also uses RFID technology for milk testing in the parlor. The milk tester uses a Palm reader to scan the cows in the parlor and downloads the RFID tag numbers into AgSource digital milk meters. The digital meter uses this information to generate barcodes for each milk sample and create labels for the individual milk vials used to collect the sample.

Maria and Gary are the sole users of the RFID reader and laptop computer. Both agree that implementing the RFID technology into their herd management practices was not difficult; however, building initial reports for the reader did take some extra time. Before implementing the RFID technology, Maria and Gary had to print separate cow lists for each herd management task and carry clipboards, leaving them with no way of confirming that management tasks were completed for each cow. Maria said she especially appreciates that the RFID tells you if you've missed a cow within the scanning sequence for a particular herd management task, therefore ensuring that all cows were cared for correctly and in a timely manner.

### Values Gained

Four Star Dairy's initial investment into the reader and laptop computer is projected to be around \$5,000. Maria said she is pleased with the total compliance provided by the

equipment and the ease of implementation into the dairy's herd management practices.

- **Quicker Herd Checks** – The use of RFID technology has significantly reduced the time needed for veterinary checks. Due to the efficiency of the technology, Maria said that they can now schedule veterinary checks, vaccinations and foot trimmings all in one day.

- **Data Accuracy** – Treatment data and results of pregnancy diagnosis are recorded cowside during herd checks using the RFID reader and laptop computer. Data is now quickly and more efficiently recorded, eliminating data entry after herd check.

- **Data Completeness** – A significant advantage at Four Star Dairy is the total compliance between the RFID reader and laptop which guarantees that once an RFID tag is read, and the herd management task is completed, it will be accurately recorded on the computer is.

- **Peace of Mind** – Maria values the inventory tracking features of the equipment, saying she no longer has to worry if the wrong cow was vaccinated or missed her veterinary check completely because they mis-recorded information on paper.



### Future Outlook

Four Star Dairy believes that a unified animal identification and traceability system will enhance their end-product and protect the industry from the potential impacts of animal disease. Maria says that due to the compliance, accuracy and time saving benefits of RFID technology, Four Star Dairy will continue its current system as they discuss a possible expansion at the main dairy, which will include the implementation of RFID technology into the updated parlor system to retrieve individual milk records from their cows.

