

DAIRY MODERNIZATION

By Kathy Barrett

The Weaver's new facility includes a robotic milking system, LED lighting, GEA single beam stalls, manure tubes and grooved rubber matting in alleys

# Weaver Dairy's well thought-out modernization

Richard Weaver has seen a lot of changes since he started milking 25 cows 34 years ago. Several parlors, and now robots, have graced the farm located in Deansboro, NY, where he farms with his wife and daughter.

The most recent change is a new freestall facility and the installation of two 3-Box MIone robots from GEA Farm Technologies for milking. Currently 230 cows are milked at Weaver Dairy, and the owners plan to milk 300 in the near future.

The first cows walked through the robot system on January 14, 2014. They were milked in the old parlor in the morning and went through the robots that afternoon. It was a big change for everyone, but a well thought-out one.

The Weavers had been gradually expanding the herd and modernizing the farm from the start. In the 1990's they installed a double six parlor and added on to the freestall. At that point they were milking 200 cows.

Then in 2000 they updated the parlor again.

Although happy with the parlor, they were frustrated with labor management and availability of labor, and started exploring the idea of installing robots.

What followed was three years of intensive research and travel. Weaver emphasizes the value of touring farms and talking to farmers with first-hand experience of technologies you're interested in.

The Weavers went to Michigan, Pennsylvania and Canada to visit farms with robots. Since they were planning to step away from the old freestall facility, and build new, they also looked for ideas and insight on barn design.

The decision to go to a robotic milking system was predicated on a few key concepts:

- Reduced time and resources for labor management
- Increased peace of mind
- Consistent milking routine with fewer errors
- Ability to attract highly skilled employees
- Increased management time available to spent on cow management, which leads to improved cow health, milk quality, reproductive efficiency, feed management and overall improved profitability.

In August of 2013 construction started on a four-row 250-stall, single feed alley freestall barn with two 3-Box MIone robots.

The Weavers chose the robots from GEA Farm Technologies because of the support they received while going through the decision making process, for both the robots and the barn design. A GEA dealership is located in Morrisville, just 25 minutes from the farm, and Weaver felt the proximity was crucial when implementing a new technology and management system. Although the new facility has only



Above: Jen Dubina, herd manager. Below: GEA FT patented single beam freestall mounting system.

**FYI**

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Mione touchscreen operator control unit



been operational for two months, the Weavers report they have already reached several of their goals. They spend less time on labor management and have been able to attract the kind of

because of the additional lunge space. The stall divider is suspended from the single beam, which means no obstruction in front of the cow, thus the extra lunge space and improved ventilation. Automated curtains and fans are used to manage the air quality. Mattresses with sawdust are used for bedding.

Cow cleanliness is important no matter how cows are milked, and robot systems are no different. Barn cleanliness is what keeps cows clean. To that end, manure tubes were installed down the center of the alleys. The alleys are slanted slightly toward the tubes so liquids flow into the tubes and out to an end collection site. This keeps the alleys drier and less slopy. Manure scrapers clean the residual manure.

The alleys have grooved rubber matting to improve cow footing and comfort. The Weavers figure that cows with comfortable walkways and healthy hooves



GEA tube scraper system

will be more apt to get up and walk to robots and the feed alley.

All in all, the Weavers feel confident that they have positioned the farm to be prosperous in the future and that it will afford them the kind of lifestyle and peace of mind they seek. It came through careful planning, research and a willingness to try new things that were appropriate to their farm. □

highly skilled employee they were seeking. They hired Jen Dubina, a Cobleskill Dairy Science graduate with farm experience, as herd manager.

Management time is now spent on using data from the robots to monitor cows and observe them. Perhaps most telling is that after such a huge change for the cows and people, milk production is up a pound to 73 lbs per cow in just two months.

"I've never seen calmer cows," Dubina said.

LED lighting was also a new technology to the Weavers. They had always tried to light the old barn to manage the photoperiod and are glad they chose LED lighting for the new barn. Weaver said that although the initial lighting cost is higher than some other forms, the long-term operational costs should be less because of increased efficiency. He estimates a five year payback on the lights without energy rebate programs. What Weaver really likes is how clear and white the light is. It has made reading tags and finding cows "a heck of a lot easier," he said. Since the Weavers now spend more time managing and observing cows individually this is a big plus.

Cow comfort was a primary consideration in the facility design. Stall design, ventilation, barn cleanliness, footing and lighting were given careful thought before decisions were made. The barn has GEA single beam stalls that the Weavers particularly like