

# ROBOTIC MILKING

## Cutting Edge Technology Comes to Leeds-Grenville

By Lorraine Payette



Picture the perfect spa. Feast any time you wish on a beautiful buffet of all your favourite healthy foods, wander over for a deeply satisfying back massage and then settle for a snooze on a beautiful water bed. This isn't for just a day or an afternoon; it's your way of life. Ah, to be a cow....

Yes, that's right, a cow. For the lucky 100 head living at Jobo Farms, Henry Oosterhof's dairy on Jellyby Road in North Augusta, things couldn't be better.

"My parents immigrated to Ontario in 1953, and my son is third generation on this family farm," said Oosterhof. "In the early 60's most farms had a variety of livestock, pigs and chickens. Today most farms have specialized and concentrate on managing one type of livestock, like dairy cattle and grow the crops to feed them year round."

Earlier dairies had certain characteristics that were functional and provided a good home for a dairy herd. Cows spent time in pasture in the summers, and were housed shoulder to

shoulder in tie stalls, on a bed of straw, eating from mangers. Religiously, twice a day, the farmer or members of the family would come to the barn to do chores and milk the dairy cows. Ceilings in the older barns were low. They would sometimes be a little dark and hard to ventilate. This was especially true in the heat of summer. Certain smells were inherent to the process and could not be avoided due to the design of the barns themselves. The system worked for generations but science and education were presenting information that things could be improved upon.

More and more evidence has piled up proving that if the opportunity became available to improve the cows' lifestyle, cows will respond with more milk production. For JOBO Farms the opportunity came in 2012. With the next generation making a commitment to accepting the demands of a dairy farming lifestyle, the decision was made to build a barn with the theme of cow comfort including state of the art robotic milking technology.

Walking into the main barn itself is an amazing

experience. The first impression made coming through the door is of a large, bright, professional industrial structure. The air smells fresh, the white walls gleam and large glass windows not only let in the sunlight, but also allow one to see into every aspect of the operation.

A spacious corner office houses a computer in front of a generous picture window looking into the main barn. This is command central, where everything is watched and tended, and the farmer can go out at a moment's notice to attend to any event that might occur on his watch.

Looking through the window, one finds a world designed with cows and milk production in mind. Ceilings are high and equipped with large fans to help control the indoor climate of the barn. Cows roam freely inside a large pen surrounded by a gleaming white ceramic tile floor manger. They laze about on waterbeds, or wander over to socialize. They are sleek and beautiful, in optimum health, obviously extremely content.

The favourite place in the barn, however, isn't the automated massager or the endless food and clean water supply. It is one of two stalls built in the middle of the barn containing the Lely Astronaut milking robotic equipment. The cows line up eagerly for a chance to enter and use them, sometimes butting each other out of the way for the opportunity to indulge in the machines and their services.

This is the first family farm with a voluntary milking system in Frontenac, Leeds and Grenville, and these machines put Oosterhof on the cutting edge of technology in the milk production industry. The cows love the robots, and can't wait for their chance to be milked while indulging in a favourite treat.

"Our decisions were made with our family

circumstances in mind," said Oosterhof. "We have two generations on the farm now and three families. We are all committed to the dairy and crop production required on our home farm. We are also committed to making decisions that will prepare this business to continue to operate profitably well into the future, allowing each family an improved quality of life. There is no doubt that it all becomes more attractive with the robotic milking system taking over the daily routine of milking the cows."

Robotic milking is a serious up-and-coming improvement in agriculture worldwide. Already in use in Australia and Europe, it is making inroads into Canada and the US.

"We visited a few herds near Woodstock, Ontario, that had robotic milking systems and I was able to tour a few barns near Winnipeg, Manitoba," said Oosterhof. "Just by walking into the barns we could sense the cows were content. While visiting with these farmers and their spouses, we could tell by their stories and the look in their eyes that investing in the robotic milking system had created a positive change in their lives as well. There remain all the daily chores of a modern dairy farm but they no longer had to participate in the practice of morning and evening milking times (consisting of two to three hours per day of very repetitious hard work), but the milk was still harvested daily and cows were milked 3 or 4 times per day. The cows entered the milking stall completely on their own time and the robot did the work of washing the teats and attaching the teat cups to collect the milk."

On the Oosterhof dairy as on every dairy farm there are always daily chores of feeding, caring for the young stock, cropping and machinery maintenance. However, now more time can be spent managing the herd. But the overall improvement in the milking experience for cows and people alike has been astounding.

"We designed the barn with cow comfort in mind and the Lely Robotic Milking system is the main feature," said Oosterhof. "We feed the cow's corn silage, haylage and grains that are all put in a mixer and combined in proper proportion. They can eat whenever they wish from a buffet style manger. They also can find a stall to lie down and rest in at any time on water beds. And we've installed cattle brushes that allow each cow to have a back massage. The cows can enter the milking stall at any time. The computer then identifies the cow by an electronic chip. If it has been more than five hours since she was last milked, the robot will swing two rolling brushes and soapy water and begin to wash the cow's teats in preparation



for milking. The brushes then move under and flashing lasers will locate the position of the teats, with the robotic arm placing a teat cup on each teat. Then the milking begins. The milk is tested and deposited in a jar. Finally, when the milking is complete, the milk is weighed, recorded and sent to the bulk tank.

"While the cow is being milked, a special pelleted ration is augured into a trough in front of the cow. This feed is actually the reason the cow enters the stall as the cows are almost addicted to eating it. It is like chocolate or candy to them, and they love it. Some cows will enter the stall five or six times a day just to get this treat. On average, the cows are milked 3.3 times per day with the robotic system."

The most amazing thing about this is its simplicity. With the robots in place, one person can manage the milking herd while the other partners devote time to other work. The machines keep complete records on each cow's health and general condition, as well as test the milk itself for many different factors which give a clear indication as to the quality and quantity of the product. The tests are very sensitive, and give the earliest possible notice of anything that might go wrong along the line. If something shows up that isn't right, that milk is separated out and the farmer is alerted so the veterinarian may be brought in to see to it that the cow receives the best in medical care.

The health of the cows has improved with lower somatic cell counts and less calls for veterinary assistance.

They have experienced roughly a 15% increase in milk production, while relieving stress on the herd and those working with them.

The Oosterhof's and several hundred other producers from across Ontario participate in the Dairy Farmers of Ontario program that collects commitments from individual producers from across Ontario totalling around 70,000 litres of milk every month that is donated to food banks across the province.



Solar electricity generation is part of the new business plan on JOBO Farms with several ground mounted sites producing electricity.

The Verburg family near Athens is also going into robotic milking. After having lost a good part of their herd to a barn fire, they plan to rebuild using the new system. With the cows able to roam inside the barn instead of being tied, the chance of rescue in an emergency improves dramatically.

"This family business is our tradition," said Oosterhof. "I promised to look after my parents when I took over the farm, and my son's generation has promised to look after theirs. We expect the practice will continue to be handed down."

As times change, it is expected that more farms will turn to robots to take away the tedium associated with certain aspects of the job, while still keeping agriculture alive and well. For more information on dairies in Ontario, please go to [www.milk.org](http://www.milk.org). LH