

ioneered in Europe some 20 years ago, significant numbers of dairies in Canada, and more recently the U.S., have begun installing robotics, also referred to as automatic milking systems (AMS). At a cost under \$200,000 for a basic AMS, dairy owners hope the payoff will come relatively quickly, mainly in the form of increased yields and lower labor costs.

The robotic system the Schnarrs purchased, which includes two milkers, a central pumping and processing unit, feed pusher and calf feeder, cost them about \$400,000. Even with a total cost of \$1.7 million, including construction of the new compost pack barn, Murray and Todd hope the system will pay for itself in six to seven years from time of completion.

“Reduction of labor cost is basically why we put the system in,” says Todd. He notes, however, that another plus of using less outside labor is that it’s often undependable. “Finding somebody who wants to sweat or wants to do the work, or just show up on time ... basically, [it’s difficult to] find reliable hired help.”

As for yield, the road to a promised increase included a fairly steep—albeit, not unexpected—learning curve. It was July 2, 2014, when, says Murray, “we started to teach cows from a tie-stall barn how to work with a robot barn.”

“And then the next few weeks were, I guess you could say, hard,” says Todd. “Very, very hard. We pretty much were out here, I’d say, at least 20 hours a day ... in the barn pushing cows and training.”

The first two months in the new facility were made all the more difficult because it was the busiest time of the year for the Schnarrs’ custom hay operation. They were trying to cut and bale hay in what is typically a tight window for such work.

“In the transition period ... we went from shipping probably close to 30 to 31 liters per cow per day to, like, 15 to 18,” Todd says. “It was like holy moly. We were anticipating [the yield] to

drop. We didn’t think it would be quite that bad.” In two to three weeks, however, the cows “were back in the ballpark of where they needed to be. And then they’ve just steadily gone up from there.”

As of this spring, the Schnarrs’ cows were up to 34 liters per day, and they expect the increases to continue, in large part because the cows can milk themselves when they’re ready, not at times set by their dairy operators. For instance, in the Schnarrs’ old barn, the cows were milked twice a day. The 115 cows in the new setup now visit the robotic milkers an average of 2.6 to 2.7 times per day.

The overall target, say the Schnarrs, is an average of slightly more than three visits daily. However, says Murray, “We have fresh cows that are milking up to five times a day.”

There are downsides to using an AMS, according to the Schnarrs. For example, says Todd, “There are some cows that will not adapt to a robot. The robot won’t adapt to their udders ... and you’ll just have to prepare yourself to get rid of a cow that you might not want to get rid of,” he adds with a tone of melancholy.

Another disadvantage, he says: “You’re always on call. So, if something goes wrong at 1 a.m. ... you have to get that situation dealt with then and there, because otherwise you’re going to fall behind.”

Murray adds, “I’d say from an older person’s perspective, you have to adapt to that technology. At least I find with myself, it takes me longer to capture that than younger people.”

The benefits, however, far outweigh the drawbacks, say the Schnarrs. For instance, they’re realizing the promise of higher yields and a reduced reliance on outside labor, and according to Murray, the setup is, indeed, much easier on his knees.



1992: Year Lely introduced the first AMS.



2,500 cows: Size of largest AMS herd at Osterland Agrar GmbH in Frohburg, Germany.