High-tech milking

UC to get robot dairy machines

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STORRS — Robots may have starred in our favorite science fiction movies and have been used in modern factories for years. But they aren’t usually found in the countryside. That’s about to change.

That’s because the University of Connecticut Department of Animal Science’s award-winning dairy farm will soon have robotic bovine milkers.

Last week, the UConn Board of Trustees approved the final project budget at its regular meeting.

The $1.8 million renovation will include a 2,500- to 3,000-square-foot addition to the Kellogg Dairy Center for the installation of two robotic milking machines, pens, a public viewing room and milk cooling and storage.

UConn is one of the first, if not the first, university to bring in these robots, according to Steven Zinn, UConn’s animal science department head.

Zinn said this is not common in the industry, but might become more common.

(Above: Grace Foster, 8, of Ellington, has a stare-down with a cow during a visit recently. Below: With the current milking system, the staff attaches milking hoses to the udders.)
High-tech milking coming to UConn

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The robots look similar to car production robots, Zinn said.

Cows will approach the large machine and stand in the middle. Arms on each side will swing out and attach to the udders.

The machines will run 24 hours a day, seven days a week.

After minimal training, the cows will actually self-select and approach the machines when their udders feel full.

Mary Margaret Cole, the executive program director in the Department of Animal Science, first broached the idea of robotic milkers. “Cow comfort is the number one priority,” Cole said. “It has to be for them to make as much milk as possible, but be healthy while doing so.”

Zinn estimates the UConn workers spend nine hours per day milking. Now, they can pay more attention to the cows’ health and eating habits.

“In a big group situation, it allows us to individually address the nutritional needs of individual cows,” Zinn said.

The machine will also compile data on which cows are milking and how much.

That way, if a cow is sick, the staff is notified automatically. Similarly, if a cow produced a lot of milk that day, the staff knows to feed it more.

Lactating cows eat approximately 90 pounds of feed per day.

The cows’ milk is used to make ice cream at the famous UConn Dairy Bar and the rest is sold to the Agrimark dairy cooperative.

According to project plans, the installation will allow the dairy center to save on operational costs long term by saving on staff overhead as current employees retire.

The robotic milkers will be a part of the dairy management classes and outreach programs, Zinn said.

Zinn said this addition brings a technological edge to the dairy programs.

“In the classroom we discuss current practices and 21st century practices,” Zinn said. “Within the context of our farms, we do as much modern farming as our units allow. Some of them are continually retrofitted to meet new management techniques.”

Zinn estimates the project will be complete in March 2018.