

Robotic systems have gained in popularity

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Occasionally, the cows indifferently step over the mechanical manure scraper that slowly and continuously cleans the barn alleys. They are fed by an automated feed pusher that maintains their rations in orderly rows.

"They adapt quite well to technology. Probably easier than people," said Mark Brown, a general manager for DeLaval Dairy Service, which builds and installs the equipment.

The cows certainly seemed less intrigued by the automated dairy system than the farmers who visited the Averills' dairy during a recent open house organized by DeLaval.

While DeLaval first patented the idea for robotic milkers in 1978 and made them commercially available in the late 1990s, the technology didn't really hit its stride until the mid-2000s, said Brown.

Several other manufacturers also produce robotic systems, including Lely, GEA, BouMatic and Insentec.

With the growing strength of computer power and the increased familiarity of dairymen with the technology, such milkers are now catching on, Brown said.

"It's become really reliable and accepted," he said.

Costs vary

The robotic systems have gained in popularity even though they're a more expensive option over the lowest-cost milking parlors, said Tranel of Iowa State University.

The lowest-cost milking parlor systems equate to 25 cents to \$1 per hundredweight in milking costs, compared to \$2 to \$3 per hundredweight with robots, he said.

Maintenance and repairs can also be expensive for robotic systems, running about \$7,000 to \$9,000 per year, he



Photos by Mateusz Perkowski/Capitol Press
A cow at the Averill family's dairy in Tillamook, Ore., is cleaned by a touch-activated spinning brush. The brushes remove manure and loose hairs, but they also entertain and relax the cows.



Visitors to the Averill family's dairy in Tillamook, Ore., observe the operations of a robotic milking machine.

estimated.

"It's definitely not the cheapest way to milk a cow, but there are other factors encouraging producers to put in robots," Tranel said. "The bottom line is cows like them and people like them."

Aside from labor concerns,

there are "quality of life factors," since dairymen are less physically tied to the facility, he said. "Someone doesn't always have to be there."

Don Averill, whose family owns the dairy, said he decided to invest in the robotic milkers and other machinery



Alan Kenagal/Capitol Press

management of the operation is easier for Averill, who can attend to other tasks.

Averill also sees the system as less stressful for the cows, as they're able to set their own routine without frequent interactions with humans.

For example, the automated brushes provide the perk of entertaining the cows while they're being cleaned, he said. "It gives them something to do. That's cow TV."

Apart from improving the health and longevity of his cows, the system is expected to increase their productivity, Averill said.

More production

Before the system's installation, the cows were only milked twice a day. Once their bodies are at full holding capacity, they stop producing milk. Now, the herd is milked three times a day, so they don't hit that limit.

A major advantage of robotic milkers is information

about the health and production of individual cows, since the systems provide "instantaneous data," Tranel said.

Yield is measured on a per-cow and per quarter-udder basis, so a farmer can quickly notice if a cow may be getting sick or if there's an infection on one of its teats.

If there are changes to the herd's feed rations, the impact on production also quickly becomes evident, he said.

By informing farmers whether new techniques are helpful or detrimental, the system allows for "day by day management," Tranel said. "They can gauge that pretty quickly."

Economics weighed

Each robotic milker costs roughly \$200,000, but the total cost will depend on how much a dairy must be retrofitted to accommodate the units and which type of gate system the farmer prefers, Brown said.

Manure scrapers cost about \$30,000 per unit, feed pushers cost about \$20,000 and touch-activated brushes cost about \$2,600 each, he said.

Robotic systems are best suited for dairies with about 260 or fewer cows, as larger operations can achieve greater profits with low-cost milking parlors, said Tranel. "For me, it's more of a smaller-farmer technology."

Robotic systems that involve a major upfront investment are often more difficult for dairies to manage than traditional milking parlors, in which the labor costs are more spread out, said Mathew Haan, a dairy educator at Pennsylvania State University who has studied the systems.

That challenge is mitigated by dealers who can lease the equipment or banks that agree to finance it, Haan said. "It makes it much more attractive from a financial standpoint."

'They tortured the data to ensure a specific outcome'

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although it is not yet fully understood how it is increased, the panel stated.

The IARC notes that red meat has nutritional value but stated the findings support current public health recom-

mendations to limit it in diets.

A healthy lifestyle, a balanced diet and maintaining a healthy weight are more important to reducing risks than a single carcinogen as rated by this panel, the NCBA's Ellis said.

A double-blind study of

the same research that was reviewed by IARC conducted on behalf of the beef checkoff has concluded a weak association, if any, between red meat consumption and cancer, he said.

It was clear sitting in the IARC meeting that many of

the panelists were aiming for a specific result despite old, weak, inconsistent, self-reported intake data, North American Meat Institute Vice President of Scientific Affairs Betsy Booren stated in a press release.

"They tortured the data to

ensure a specific outcome," she said.

The panel was given the task of looking at hazards that meat could pose at some level, under some circumstances but was not asked to consider any off-setting benefits, such as the nutrition meat delivers

or the implications of drastically reducing or removing meat from the diet, she said.

"IARC's decision simply cannot be applied to people's health because it considers just one piece of the health puzzle: theoretical hazards," she said.

'We're hoping all the water users in district 63 will stick together on this'

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Boise to Parma in Southwestern Idaho.

Based on snowpack levels and spring runoff calculations, water is released from Boise River system reservoirs in January or February to prevent flooding in the valley.

When the snow melts, the reservoirs fill again and the water is available for irrigators during the summer.

Idaho Department of Water Resources officials believe the water released downstream for flood control should count against irrigators' storage water rights.

Because senior water right holders get first dibs to the water that fills the reservoirs, they are the ones affected by that means of accounting for flood control releases.

Conflicting rulings

Under Idaho water law, if the person with those water rights didn't use the water when it was available to them, it's available to the next person in line who will put it to beneficial use, said IDWR Deputy Director Mathew Weaver.

Weaver pointed out that the Idaho Supreme Court ruled last year that the IDWR director has discretion to determine what constitutes the filling of a storage water right. The department believes that under Idaho water law, storage water right holders are required to take the water when it's available to them.

A legal opinion by Idaho's deputy attorney general, Clive Strong, agrees with the IDWR's position on the issue.

But an Oct. 9 ruling by a special court master agreed with the Treasure Valley irrigators' position that flood control releases should not count against reservoir storage water rights. That 46-page ruling was made by Theodore Booth, a special master of the Snake River Basin Adjudication court.



Sean Ellis/Capitol Press

Treasure Valley Water Users Association Executive Director Roger Batt stands in front of Lucky Peak Reservoir Oct. 22. Treasure Valley water users are fighting the state's decision to count flood control releases from Boise River system reservoirs against storage water rights. Both sides say the issue is likely to end up before the Idaho Supreme Court.

"Special master Booth's ruling was in favor of our irrigators' position that we do have a right to the water that fills in the reservoirs after flood control releases are made and that flood control releases do not count against the storage rights of our water right holders," Batt said.

Six days later, IDWR Director Gary Spackman issued an order in a contested case hearing on the matter that backs the department's position on the issue. That administrative case, which is separate from the SRBA case, was initiated by the department and Spackman was the judge.

In his 84-page order, Spackman ruled that the department's "current water right accounting method is consistent with the prior appropriation doctrine and is the best method for efficiently accounting and distributing water and maximizing water use without waste."

Treasure Valley water users who

disagree with Spackman's order can petition for a judicial review of that decision and the judicial review can in turn be appealed to the Idaho Supreme Court.

Special master Booth's ruling is a recommendation to Judge Eric Wildman, the presiding judge of the SRBA court. The IDWR can challenge those recommendations before Wildman and can also appeal Wildman's decision to the Idaho Supreme Court.

Parties on both sides say the issue will likely be decided by the state's top court.

"Nampa-Meridian is prepared to go the distance," said NMID Water Superintendent Greg Curtis. "We're hoping all the water users in district 63 will stick together on this."

Sen. Jim Rice, R-Caldwell, chairman of the Idaho Senate's Agricultural Affairs Committee, said Spackman's order cannot overrule the SRBA court's decision.

Unless Booth's recommendation is overturned by Wildman, "he's bound by it," Rice said. "The director has no authority to reverse the court. His ruling is of no effect."

But Weaver said while both cases were about the refill issue, they asked different questions on the matter and Spackman's order addressed different aspects of the issue.

The department supports letting both of the current cases play out because they allow both parties to participate fully in resolving the refill matter, he said.

"The department, of course, is going to comply with" the ultimate legal outcomes of both processes, Weaver said.

1953 agreement

In 1953, an agreement between Treasure Valley water users, the state and the U.S. Bureau of Reclamation and Army Corps of Engineers stipulated that flood control releases would not count against reservoir storage rights, said Boise attorney Dan Steenson, who is representing Treasure Valley water users on the issue.

The agreement was approved by Congress in 1954.

Despite the complexity of the court proceedings in the two cases, the issue really isn't complex, Steenson said.

"The basic issue is whether or not water released for flood control purposes counts against your storage rights," he said. "Our position is that water released for flood control purposes doesn't count against your water storage right. It never has and it can't."

Because a certain amount of reservoir space has to remain empty to prevent flooding, that water can't be stored, Steenson said. And because the water is released during a time when irrigators can't use it, he added, it can't be put to beneficial use by them.

"Because that water can't be

stored and it can't be used, we say, 'You can't count it against our water rights,'" Steenson said. "It's very simple."

The office of Gov. Butch Otter declined to comment on the issue.

The issue has galvanized water users in district 63, who formed the water users association earlier this year largely as a result of it.

Coon, of the Nampa & Meridian Irrigation District, said water users in this area have struggled to understand the state's stance on the issue.

"The 'why' is very baffling," he said. "You begin to believe it's simply a water grab ... because this makes absolutely no (legal) sense at all."

No change in policy

Weaver said it's not correct for people to say the state has recently changed how it accounts for flood control releases and storage rights in district 63. The department has accounted for those releases this way since it adopted a year-round computerized water rights accounting system in 1986, he said.

"This is how we have always done it, since 1986," he said. "The department has made no recent changes in its practices."

Those opposed to the IDWR stance on flood control releases say the adoption of the computerized water right accounting program didn't change water rights or Idaho water law.

"It didn't change the water right and it didn't change the way the water rights are administered," Steenson said.

He said the 1953 agreement with the Bureau of Reclamation and Army Corps of Engineers is legally binding and water users hope the IDWR reverses its course on the issue.

"We hope the state admits they're wrong because the facts, the evidence and the record are so clear, as (demonstrated) by Booth's decision," he said.