



CHEESE REPORTER

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Report Finds Big Drop In FDA Inspections Of Cheese, Other Food Facilities; Senator Wants Food Safety Reform Bill Passed

Washington—A study of the Food and Drug Administration's inspections of domestic food facilities found "significant weaknesses" in the agency's domestic inspections program, including a big drop in inspections of cheese plants.

The study was conducted by the Office of Inspector General (OIG) in the US Department of Health and Human Services (HHS), FDA's parent agency. Objectives of the study were to determine the extent to which FDA: conducts inspections of domestic food facilities; identifies violations in food facilities and takes action against those facilities; and ensures that violations are corrected.

The review had been requested by the Senate Agriculture Committee. The former chairman of that panel, US Sen. Tom Harkin (D-IA), said the OIG's report shows "that our domestic food facilities are not being adequately inspected and FDA needs additional authorities to keep the food on our tables safe."

Food safety reform legislation "is long overdue and it is my hope that we can soon pass the FDA Food Modernization Act of 2009" in the Senate in order to get the bill reconciled with a House bill passed last year and on to President Obama to be signed into law, Harkin added.

Among the OIG's findings:

■ On average, FDA inspects less than a quarter of food facilities each year, and the number of facilities inspected has declined over time. Between fiscal years 2004 and 2008,

• See **Drop In Inspections**, p. 19

Fonterra Auction Prices Rise, But USDA Reduces Most Price Forecasts

At CME, Blocks, Barrels Near Highs For Year, Then Retreat; Butter Hits \$1.50 For Second Time This Year

Wellington, New Zealand, and Washington—Fonterra's Internet-based sales platform, globalDairyTrade, concluded its monthly trading event on Tuesday with average prices for the three products traded each up more than 20 percent from last month.

In the US, meanwhile, cash cheese prices neared their 2010 highs Thursday, then declined on Friday. And the US Department of Agriculture (USDA), in its monthly supply-demand estimates released earlier Friday, reduced its forecasts for most milk and dairy product prices for 2010.

CRA International, globalDairyTrade's trading manager, advised Fonterra that the average price for skim milk powder was up 25.5 percent from last month, whole milk powder was up 21 percent, and anhydrous milkfat was up 21.9 percent.

Specifically, for skim milk powder, the average price achieved across all contracts and contract periods was

US\$3,672 per ton, up \$745 per ton, or 25.5 percent, from the March event. Prices ranged from \$3,400 per ton to \$3,985 per ton.

For whole milk powder, the average price achieved across all contracts and contract periods was US\$3,969 per ton, up \$688 per ton, or 21 percent, from March. Prices ranged from \$3,755 per ton to \$4,230 per ton.

And for anhydrous milkfat, the average price achieved across all contracts and contract periods was US\$4,827 per ton, up US\$868 per ton, or 21.9 percent, from March. Prices ranged from \$4,635 per ton to \$5,235 per ton.

Overall pricing increased 23.2 percent across skim milk powder, whole milk powder and anhydrous milkfat.

Paul Grave, globalDairyTrade trade manager, said demand across all products was very strong, and that prices reflected tightening supply as the Australasian production season draws to a close.

Meanwhile, at the Chicago Mercantile Exchange (CME) cash markets, Cheddar 40-pound blocks increased to \$1.5100 per pound Thursday before declining to

\$1.4975 per pound on an uncovered offer today. Blocks had reached \$1.5150 per pound in late January, dropped to \$1.2675 in mid-March before starting the rally that appears to have ended.

Cheddar 500-pound barrels rose to \$1.4550 per pound Thursday before declining to \$1.4400 per pound on an uncovered offer today. Barrels had reached \$1.5150 per pound back on January 25.

USDA's *Dairy Market News* had reported on Wednesday that the cheese market "seems to be reacting to factors other than supply and demand. A lot of experienced cheese traders are confused by recent increases and are wondering what they missed that would generate such a large cumulative cheese increase."

CME cash butter closed today at \$1.5000 per pound, the first time since January 19 that butter has reached that price. The cash butter price for 2010 had peaked at \$1.5250 on January 15.

In its monthly supply-demand estimates, USDA raised its milk pro-

• See **Dairy Prices Mixed**, p. 7

Robots Help Improve Human Safety, Food Safety In Dairy Manufacturing Operations

More Robotics Companies Getting Involved In Food Industry, Reducing Prices; Food Contact Applications Are Newest Innovation

Madison—Robot and vision technology have emerged from science fiction movies and into dairy plants and are being used as a viable production tool for processors to reduce costs, maintain product quality and safety, improve worker safety, and increase yield, experts say.

Today, many dairy companies are using robots to palletize product, pick and place small pieces, erect boxes, reduce cheese pieces, and anything else where extensive labor or safety issues are involved.

While those issues are based on the general welfare of the worker or a cost efficiency concern, more recent uses for robots have to do with food safety and protection.

"It's as much of a food safety issue, as it is a human safety issue,"

said Don Wickstrum of Quest Industrial.

"We are realizing that whenever a person is interacting with food, there is the potential for contamination and other food safety issues," Wickstrum said. "The integration of robots that have been approved for food contact have virtually eliminated any possibility for food safety problems."

Wickstrum said human life and limb has always been an issue.

"With humans and equipment working together, there has always been the possibility of an accident trying to keep up the equipment," Wickstrum said. "Employees are human, and we don't always make the best decisions, be it carrying items that are too heavy, moving awkwardly, or not paying attention to their surroundings, robotic automation helps minimize those decisions. Human safety is always a concern for customers."

• See **Robotic Integration**, p. 6

House Bill Would Create Pilot Program To Help Schools Switch To Lowfat Cheeses In School Meals

Washington—US Rep. Joe Courtney (D-CT) recently introduced legislation that will establish a pilot program for providing lowfat cheeses for school meal programs.

Under the three-year pilot program proposed in the Healthy Milk and Dairy Choices In Schools Act of 2010, no later than 60 days after enactment of the legislation, the US Department of Agriculture (USDA) would begin purchasing lowfat cheeses for use in the school lunch and school breakfast programs.

Lowfat cheese, as defined by this legislation, means cheese of any type

• See **Lowfat Cheese**, p. 9

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Robotic Integration

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According to the Bureau of Labor Statistics, the average company will have an employee turnover rate of nearly 19 percent per year. The average worker will remain with a company roughly 3.5 years.

Every company faces the increased expense of employee turnover. There are always a few people that will work a few days, find they don't like doing what they were hired to do, and simply quit.

Lack of productivity, training, insurance changes, recruitment expenses all are generated by employee turnover.

According to Wickstrum, nothing scares a food company, the USDA and the FDA like a rotating workforce.

"With all that goes on to keep food safe, can these new hires be trusted with our food supply? I think we'll have a safer food supply if we can reduce the number of those employees who work a few days, then leave. We'll also eliminate injuries to those employees as well."

Quest Industrial, located in Monroe, WI, is just one of several new robotic integration companies serving the dairy industry.

Zepnick Solutions of Green Bay, WI, is celebrating its 10th year of integrating robots into a general automation upgrade.

While eliminating jobs is never appetizing, Jody Zepnick says the objective of robotic integration is not to reduce the workforce.

"We've seen what has happened to companies that don't update their technologies, that haven't managed to be cost competitive," Zepnick said. "The objective of automating is to keep jobs. Help a company, which employs workers, stay competitive."

Wickstrum agrees. "Honestly, we don't replace people, we save jobs. A more efficient plant saves jobs. If you can take a valued employee off the tediousness of packaging and put them on the quality, value-added non-redundant areas, you've added quality to your product and have reduced its cost."

Zepnick used an example of companies needing to retrain workers to handle the new automated systems. "Instead of having six people on a line, now we have a higher-skilled operator for that line," he said.

"On an overall work standpoint, there will probably be fewer people on that line, but now you have more technical, better jobs, rather than the mundane, less safe jobs," Zepnick added.

Ergonomics and Insurance Other Key Factors To Integrate

What these integrators look for when they walk through a dairy operation is the repetitive, mundane tasks, as well as the heavy lifting.

"There is a fair amount of pressure in the system from OSHA and the insurance industry for increased applications of robots to reduce repetitive motion injuries," Zepnick said.

Tayt Wuethrich of Grassland Creamery, Greenwood, WI, said while there are a number of reasons to switch to robots, insurance premiums was a key factor in his company's decision to add robots.

"The immediate reduction of injury claims and the subsequent reduction in insurance premiums we were paying was a no-brainer," Wuethrich said. "Our return on investment was really quick."

Wickstrum recently spoke at an insurance risk assessment and control conference for a large insurance company.

He said the prime objective for his talk was to educate the insurance risk assessment division on how to evaluate high risk positions within their customers' facilities using robotics.

John Lanigan of Glanbia Foods and Southwest Cheese says he introduced robots for palletizing cheese blocks in 1996 and shortly thereafter the whey side followed with robot technology.

He said reducing injuries in the plant is always important.

"Any time you have an incident in the plant, your insurance goes up. So it is logical to reduce those areas where injuries occur most often," Lanigan said. "To eliminate the needs to handstack pallets, moving heavy loads, hand stretch-wrap pallets, those areas where injuries are high, we have avoided those injuries with the use of robots," Lanigan said.

Zepnick said that robots allow a company to do a lot of things they couldn't do before.

"I would say what we see as the key reasons to automate are ergonomics, productivity, and with the productivity, the financial pay-back."

Wickstrum agrees.

"If you have a person doing the same task over and over again, day in and day out, those are the places where you can immediately reduce your overhead," Wickstrum said.

Wickstrum and Zepnick say robotic integration can be used anywhere there is a lot of manual work.

"Placing any size cheese into film and then automatically shrink wrapping it can be integrated," Wickstrum said. "Cheese sticks, feeding a cheese cutter...We're looking at picking cheese loaves up in vats, cutting cheese in the vats."

"The immediate reduction of injury claims and the subsequent reduction in insurance premiums we were paying was a no-brainer. Our return on investment (because of the addition of robots) was really quick."

—Tayt Wuethrich,
Grassland Dairy

Wickstrum said the most advanced technology he's placed into a cheese operation was the cutting of cheese using ultrasonic waves to cut various cheeses.

Zepnick said the best examples for quick return on investment is in the warehousing and shipping areas.

"Palletizing, loading boxes and bags are excellent examples of quick ROI," Zepnick said. "The handling of unstable products is also a very good application."

Wickstrum said his company can pick out instantly what's going to meet someone's return on investment right away. He says he can look

• See *Robotic Integration*, p. 8

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Robotic Integration

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at most applications and say “yea, we can integrate that.”

Robots For Palletizing

The most frequent place robots are currently in use is for palletizing boxes and for bags of whey products.

In all, Lanigan is utilizing six robots; two for Southwest Cheese's 40-pound block line and one for its 640-pound block line. In addition, Twin Falls, ID, has one robot and the Gooding, ID, operation has two.

“The first robot we put in was back in 1996,” Lanigan said. “It's still running today and I figured ‘Bad Bob has palletized over 1.4 billion pounds of 40-pound blocks for us.’”

Zepnick integrated the 640 pound cheese line at Southwest Cheese. He said the line was an interesting application with a lot of variables.

“We were able to integrate a 500 kilogram Kuka robot where we took the blocks off the line and stacked them in a format that allowed the company to warehouse the 640s easier and more efficiently,” Zepnick said.

“I think the robots are essential. People perpetually lifting 44 pounds

of cheese, six feet high, 12 hours a day. You can't expect any person to be doing that. It can't be done,” Lanigan said.

“That robot has never called in sick, never had a headache, never had any back problems,” Lanigan said. “It performed every day and I would challenge any person to stack a pallet as well as the robot can do it.”

In addition, Lanigan said with a push of the robot's button, the pallet can be loaded in different stacks.

“We're getting some requests from our customers who want chimney stack, solid stack, or interweaving stacks,” Lanigan said. “The robot does this very simply—with 100 percent guarantee that the label will be turned out so it can be read easily.”

Zepnick said his company has a certain client base that focuses on larger production.

“We have done a lot of work for large companies,” Zepnick said. “We are very familiar and comfortable dealing with that corporate structure of how larger projects need to work, how larger projects need to flow.”

Robots for Direct Food Contact

More recently, robots are being used where they were never used before: in direct contact with food.

Quest Industrial uses FANUC robotics, which has USDA approval in other industry sectors, Wickstrum said.

“FANUC rates their foodgrade robots at 70,000 hours plus, between mechanical failure and 80,000 on the regular robots,” Wickstrum said.

He said those rates are the reason he decided to integrate FANUC robots. “That and the fact that they are so far ahead on vision technology and intuitive controls for the end user.”

“I think we're good at the project no one else wants to handle,” Wickstrum said. “We can do pick and place, palleting, high speed assembly, cheese cutting, you name it.”

This past year, Klondike Cheese of Monroe, WI, put in a Quest Industrial case erector and a Pro Pick Pack line for use on Klondike's crumbled Feta cup line.

“The original intent of the Pro Pick Pack cell was to reduce the potential for injury,” said Matt Erdley of Klondike Cheese. “At the time, we were hand packing cases, putting deli cups into boxes and we were seeing a lot of wrist and arm injuries from that repetitive motion.”

Erdley said before the Pro Pick Pack line was put in, Klondike had one operator standing at the cup line and loading about 48 cups a minute. The company did two-hour rotation on the line but still saw three cases where the workers had wrist trauma, Erdley said.

“We decided to go with the Pro Pick Pack because, number one, it addressed an immediate need, and

two, because we thought it would be a really good introduction into what robots could do and evaluate them for future needs.”

It is Klondike's intent to grow the company, and if they were going to do that, Erdley said, throwing more people in there was not the answer.

“I think the robots are essential. People perpetually lifting 44 pounds of cheese, six feet high, 12 hours a day. You can't expect any person to be doing that. It can't be done... That robot has never called in sick, never had a headache, never had any back problems.”

—John Lanigan,
Glanbia Foods

Klondike continues to work with Quest to improve the capacity of the lines. Erdley said the company will add more equipment this year and hopes to run as many as 80 -85 cups per minute.

Wickstrum's company, Quest Industrial, adapts and works to obtain approvals in the dairy and cheese industries with great success.

For direct food application, Quest designs all its components, process,

• See **Robotic Integration**, p. 12

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