

MICHIGAN TURKEY PRODUCERS WINS FOOD QUALITY AWARD

Investments improved quality, nearly eliminated pathogen growth

BY **TINA DIMARCANTONIO-BROWN**



“Dedicated employees producing quality products.” This statement, printed on the back of Michigan Turkey Producers employees’ T-shirts, represents the company’s core beliefs and culture. It is because of these “dedicated employees” and “quality products,” as well as several important investments, that Michigan Turkey Producers, a supplier of raw and ready-to-eat turkey products, is the 2009 Food Quality Award recipient.

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The judges recognized the company, based in Grand Rapids, Mich., for its consistently strong performance in audits concerning food safety, quality management, animal welfare, and child nutrition. One judge noted the company was “able to use outside resources to augment internal staff and made a commitment to continuous improvement.”

Food Quality magazine presented the Food Quality Award, sponsored by DuPont Qualicon (Wilmington, Del.), on Tuesday, April 13, 2010, at the Food Safety Summit in Washington, DC. Luis Fischmann, global marketing manager at DuPont Qualicon, moderated the awards ceremony. During the ceremony, R. Dale Morton, director of food safety programs for PepsiCo North America and Quaker Tropicana Gatorade, delivered the keynote address, which discussed how to meet the challenges evolving in today’s food safety culture.

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—TINA CONKLIN, corporate quality assurance manager, Michigan Turkey Producers



The 9th Annual Food Quality Award was presented to Michigan Turkey Producers at the recent Food Safety Summit. Shown left to right after the award ceremony are Marcos Cantharino, global sales and marketing director at DuPont Qualicon, the award’s sponsor; Tina Conklin, Michigan Turkey Producer’s corporate quality assurance manager; Dan Lennon, the company’s president and CEO; and Luis Fischmann, global marketing manager at DuPont Qualicon.

A KEY INVESTMENT

The largest investment Michigan Turkey Producers made toward improving quality and safety was in a CO₂ gas stunning system, purchased in 1999—an investment of more than a million dollars, according to Dan Lennon, the company’s president and CEO. This stunning system serves as an alternative to electric stunning before bleeding the bird out and stripping meat off the bone.

Although it was untested, unproven, and there was no backup plan, Michigan Turkey Producers put its faith in the product’s ability to improve quality. “The idea was that we would bring the birds in from the farm, leave them in the cage ... and put the bird to sleep using CO₂ gas,” Lennon said. “It’s a huge difference, because in electric stunning, the birds need to be physically removed from the cages by hand. It’s a very frightening experience for the bird ... they’re hung upside down while they’re still alive ... and they’re scared and stressed.”

This stress can lead to pale, soft exudative meat or broken wings, legs, or thighs while the bird is still alive—historically common issues caused by traditional handling practices, Lennon said. Reducing damage to the bird also minimizes or eliminates blood spots in the turkey meat.

The stunning system has also helped to ensure that the birds are cleaner coming into the system, avoiding pathogen issues and reducing the number of antimicrobials used for cleaning. The plant runs a *Salmonella* positive rate of about 1.54% for a two-year average, according to Tina Conklin, the company’s corporate quality assurance manager. For the last sample set of whole birds that the United States Department of Agriculture analyzed, Michigan Turkey Producers had no positives out of 56—a completely clean set.

“That follows with every 3,000 birds that we test for generic *E. coli*, total coliforms, and total plate counts,” Conklin said. “Our counts are extremely low ... less than five on most of our counts every 3,000 birds.” Also, according to the award application, Michigan Turkey Producers has never had a *Listeria monocytogenes* positive test result among the 3,495 pieces of product tested since 2006.

Because the birds are cleaner, the company needs only chlorine to keep the pathogen counts at this low level, Conklin said. “We’ve never had a listerial issue at our facility; we’ve never had a spike in *Salmonella* at the harvest facility,” she said. “We’re prepared, but we happily don’t know what it’s like to have to deal with trying to reduce pathogen activity.”



R. Dale Morton, director of food safety programs for PepsiCo North America and Quaker Tropicana Gatorade, delivered the keynote address at the Food Quality Award ceremony.

QUALITY IMPROVEMENT AND RESOURCE SAVINGS

The company also has an automated loading system on the farm, so the birds are not touched until after they are anesthetized. According to Lennon, this automated loading system “completes the cycle. It doesn’t do a lot of good to protect the bird at the plant if there is the potential for damage to the bird when loading it into the truck. It’s very humane and has financial benefits as well.”

Additional investments include a Weber slicer, a grinder from Weiler Food Processing Systems, and a turkey killer machine from Prime Equipment Group in 2009, according to Conklin. “The

slicer, from a quality perspective, eliminated a lot of the tears, shredding, and frayed edges,” Conklin said. The addition of the slicer also improved the temperature for slicing, keeping it consistently at 38°F, which helped control potential pathogen growth and led to a 10-day increase in shelf life. Production yields improved by 3% to 5%, and the length of the logs to slice increased from 34” to 46”. Both of these improvements have reduced waste.

After implementing the grinder, Michigan Turkey Producers saw a 90.5% improvement in gravimetric analysis, a 50.3% improvement in calcium content, and a 55.7% improvement in bone equivalency, Conklin said.

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The new kill machine, designed by Rikus Koops in the Netherlands, allows for more consistently placed cuts on the neck and reduces the amount of blood left in the bird. Adding the new loader, kill machine, and slicer yielded a sales increase of more than 30% for cooked product sales, according to the award application.

The company also implemented water recapture stations at the ends of chillers, or large water baths that cool the heat down quickly, Lennon said. These water recapture systems have yielded nearly \$200,000 in savings each year. Because the company has to pay for both incoming and outgoing water, this has resulted in double savings. In addition, because they are capturing refrigerated water, refrigerated water use has dropped by 20 million gallons per year, almost nine percent of the volume of water that enters the facility yearly. In turn, this has reduced the amount of water that must be cooled down, which has also led to electrical cost savings.

Finally, Michigan Turkey Producers replaced its lighting system with more natural light rather than fluorescent lighting. With this induction lighting system, the company expects to reduce energy use by 1.36 million kWh per year.

SECRETS TO SUCCESS

According to Lennon, the company's employees are essential to its success. "It's everyone's job to point out a deficiency, an issue, or an error and then keep that from leaving the plant," he said.

Conklin pointed out that communication is key to ensuring that all employees are looking out for safety and quality. Associates attend both weekly and monthly meetings with managers. "That constant communication has helped our associates become more aware of all the aspects of their job," Conklin said.

Also important to the company's success are its consistently high audit scores. Of 15 audits in 2009, the lowest score was 98.3%. The company has never scored below a "superior" rating on a good manufacturing process and hygiene audit and has always scored 100% on animal welfare audits. In addition, the company uses the reports from third-party auditors like Silliker to implement changes in its program. "Emerging issues are usually picked up by those third-party auditing firms, and it's some-

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thing you can include in your program, so they're very beneficial," Conklin said. Michigan Turkey Producers has also implemented seven hazard analysis and critical control point programs between its two facilities.

The company's vendors have also contributed to Michigan Turkey Producers' accomplishments. Conklin mentioned, among others:

- Midway Machine, which built the stunning system;
- Riteway plumbing, for all of the stainless drains and proper routing of water throughout the plant;
- C&T Fabrication, which designed and built the chiller transfers;
- Diversified Laboratories for pre-screening of flocks;
- Neogen Corporation, which assists with rapid prescreen pathogen detection; and
- Alliance Analytical Laboratories for pathogen testing and help with in-plant validations.

"[Success] doesn't happen in a vacuum, and we wouldn't be as successful as we are today if it weren't for so many wonderful companies out there to work with," Conklin said.

The company has been aggressive with purchasing equipment that it knows will provide a return on investment. In the case of its 2009 investments, Michigan Turkey Producers faced a financial hurdle because of overproduction and uncommonly high corn costs in 2007 and 2008. Despite the higher costs and lower revenue, the board of directors approved the purchase of the slicer and an in-process cooler in the cook plant.

"We typically, as an organization, are not shy about taking a chance and putting our money out there if we think it's going to pay back later," Lennon said. "And we've done that again and again during the last 10 years we've been here."

Humane practices and attention to animal welfare have also helped the company to provide high-quality, safe products. "I firmly believe there is a direct correlation between animal welfare practices, good animal handling, and quality and food safety," Conklin said. "The benefits of [our] humane handling system ... are wonderful, and I wish everybody would invest in that end of their business, because they'll see rewards on the other end." ■

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