

FOOD Manufacturing®

Keeping A Watchful Eye On The Food We Eat

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Adam Aronson, Chief Executive Officer, Arrowsight

Preventing cross contamination from pathogens such as *E. coli* and salmonella has been the long-standing top priority for the meat industry. From harvesting through processing, contamination typically occurs due to inconsistent sanitary procedures. Meat producers have continuously improved handling practices, and over the last ten years our meat supply has become safer than ever before. One of the biggest recent advances has been remote video auditing (RVA).



The vast majority of workers in meat processing plants are conscientious. However, this is very labor-intensive work and the opportunity for procedural errors exists. It is intuitive that when an employee knows he or she is being watched, he or she is less likely to make mistakes or take shortcuts.

Before RVA, it was impossible for supervisors to observe worker performance without influencing worker behavior by their presence. Arrowsight utilize a patented RVA system to provide independent, objective and off-site third-party auditing to monitor and notify plant management in near real-time to immediately identify and correct any issues. The platform is designed to monitor handling from the time the animals are first brought in until the meat is ready to be shipped.

Meat companies that utilize RVA programs have the benefit of 24/7/365 random sampling and near real-time feedback which has shown sharp improvements in a multitude of important operational procedures including food safety, animal handling, employee safety, food defense and a wide range of operational efficiencies.

For animal handling facilities, cameras are installed at locations throughout the live handling areas in a processing plant. This includes chutes, pens and where the most critically-sensitive animal-handling procedures occur. These videos are then remotely monitored by third-party auditors who observe and score sampled video of line workers' animal-handling techniques.

Results are entered by the auditors into a cutting-edge patented software system which automatically delivers near real-time email alerts, with links to video, to front-line managers in the event a line worker's performance was designated as being out of compliance. For example, if an auditor observes a line worker prodding more than 25 percent of the cattle in a given audit, there would be an automated email alert sent to the front-line manager. Additionally, there are daily and weekly summary reports sent to both plant and corporate management.

The Food Safety Modernization Act, Congress' response to massive recalls in the food industry, requires that processing plants form comprehensive food defense plans to better protect our nation's food supply from contaminants and tampering. The text of the legislation suggests video monitoring is positioned to become an essential component of the industry's food defense plans.

In late August, the United States Department of Agriculture's Food Safety and Inspection Services published guidelines "to assist meat and poultry establishments that want to improve operations by using in-plant video monitoring." The guidelines were published so meat and poultry processors could use a technology that "could improve humane handling [and] food safety." RVA technology has gained the support of the agency tasked to regulate the nation's food supply, with FSIS Administrator Al Almanza stating that he encourages use of the technology.

Companies using RVA software have seen successful results. JBS, the world's largest beef producer, achieved a two-thirds reduction in microbial *E. coli* counts for the first half of the 2011 in comparison to the same period in 2010. Another example is OSI Industries, a meat supplier to some of the nation's largest restaurant chains. OSI has used remote video auditing services since 2005 to ensure the shipping compartments of trucks were equipped with tamper-evident seals. Since that time, there have been zero tampering incidents.

Video auditing can play a role in food manufacturing processes beyond proteins and should have the opportunity to grow as a food safety tool. Even restaurants and hospitals have begun monitoring their employees to increase hygiene and efficiency.

Food safety and food defense are critical issues in guaranteeing the integrity of what we eat. RVA is one of the tools that can help us maintain a high standard of protection against foodborne disease and deliberate tampering.