Demonstration to showcase Bulk Milk Transport Security System

LEXINGTON, Ky. (Aug. 13, 2008) – For more than two years, University of Kentucky College of Agriculture researchers have been heading up a project aimed at improving food safety and defense measures associated with bulk milk transport. As an added bonus, their efforts are streamlining the information gathering process associated with farm milk pick-ups and deliveries. On Oct. 9, researchers will demonstrate the Bulk Milk Transport and Security and Traceability System in Lexington.

Fred Payne from UK’s biosystems and agricultural engineering department and Chris Thompson, UK Regulatory Services milk coordinator, have been guiding a team of researchers from UK, Western Kentucky University and the University of Louisville. The project was funded by the Department of Homeland Security through the National Institute of Hometown Security in Somerset.

“University personnel aren’t the only people providing input with this effort,” Thompson said. “From the beginning of the project, dairy industry representatives who deal with milk transportation issues day in and day out have been involved as advisory team members to ensure the system meets the dairy industry’s needs. The advisory team includes representatives from milk marketing agencies, dairy processors, milk transportation companies and milk tanker distributors and manufacturers.”

Payne said key components of the system include a small, user-friendly, handheld computer device a hauler will use to enter typical milk ticket information. The handheld device will provide the hauler with the most up-to-date information regarding pick-up scheduling and logistics, among other data. The tanker itself will be outfitted with a computer processor to store the milk data. Other key components on the tanker include a GPS unit, locks on the dome lid and rear door, a key pad to enter security codes when the handheld device is not available and temperature sensors for the sample cooler and cargo.

“The system is designed to incorporate security and accountability with the electronic locks, which will interact with other parts of the system to only allow legitimate users, such as a milk hauler, inspector, etc., access to the tanker,” Thompson said. “Access to the tanker is thoroughly documented, and inappropriate access will be ‘red flagged’ for the system users.”
Information typically recorded on the milk ticket, tanker wash tag and other documentation will be entered into the handheld device. This information will be accumulated, tracked and provided to appropriate individuals who are using the system.

Programming is included in the system to minimize errors. Thompson and Payne said haulers benefit from the system through reduced paperwork relating to farm pickup and seal information, a reduction in errors associated with these records and improved communication. Other users benefit from being able to have milk transport information in “near real-time.” To ensure privacy, the information gathered by the system is arranged so that only certain users will have access to their own “authorized” information. However, the data within the system is structured so that a “trace-back” can occur in case of a security breach or a food safety concern.

Payne said they currently are testing the system on actual milk routes and testing will continue throughout the summer.

“Early tests of the system have been quite successful,” he added. “I know that dairy industry professionals and Department of Homeland Security representatives are excited about the progress of the project, and funding has been announced to continue refinement of the system through December 2009.”

The demonstration of the truck and accompanying system is scheduled for Oct. 9 at the Fayette County Cooperative Extension Office in Lexington. Thompson expects attendance to include national and international dairy representatives. For more information, visit the project Web site at http://www.rs.uky.edu/milktransport or contact Thompson via e-mail, chris.thompson@uky.edu, or by phone, 859-257-2785.

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