

How to use the National Whole Chain Traceability System



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Oklahoma State University (OSU) has developed a pilot scale traceability software interface for demonstration purposes that provides a common format for data transfer between individuals in a commodity supply chain, regardless of the front-line traceability software being used. This provides cow-calf operators, feeders, and processors a method of sharing information without changing their data management software. The system works by accepting data from various cattle management applications, converting it to a specific format, and then storing it on a secure server where the data can be retrieved (Figure 1). The goal is to provide an umbrella system that works with the many different management software's currently used by feeders, stockers, and processors to manage their operations. Currently, the demonstration system only works with Cattlemax but it can be easily expanded when the NWCTI system moves beyond the pilot demonstration to a full scale system.



Figure 1. Cow-calf operators, feeders or processors maintain digital records as they normally would. This data is then uploaded or transferred to a secure server over the Internet where the data

Within the demonstration traceability system, interested users must first register and link their traceability account with their cattle management database (Figure 2). OSU's software walks users through these steps to simplify the process; however, users will need to enter their business information (address, name, owner, etc.) and provide the web URL that links and provide their cattle management software URL to link their software to the NWCTI system. After completing these steps, the traceability system will automatically update its records each time the user modifies a record in management software, assuming they have internet access. After registration, the cow-calf operator, feeder or processor can share specific information with other members of the traceability network. This information could include antibiotics, vaccinations, rates of gain, number of calves sired or birthed, age, genetic ancestry, or any additional information. The data is shared by searching for another user (through the traceability app) and then selecting the cattle ID number to share all records for that animal. Additionally, the data owner can filter this information to include only the animal's weight, or ear tag number. As the animal moves through the supply chain, the original data owner retains full control of their information.

They have the ability to share as much or as little data, with as many or as few entities as they choose. Further, the data owners may revoke these privileges at any time to protect their information. In the future OSU hopes to incorporate additional compatibility algorithms so the NWCTI system can be used with a wider range of management software. Developing Android- and Windows-compatible apps (currently only Apple iPad is supported) will provide NWCTI software to a wider audience. This will provide greater flexibility to users and create a more robust system that can be operated across multiple smart devices.

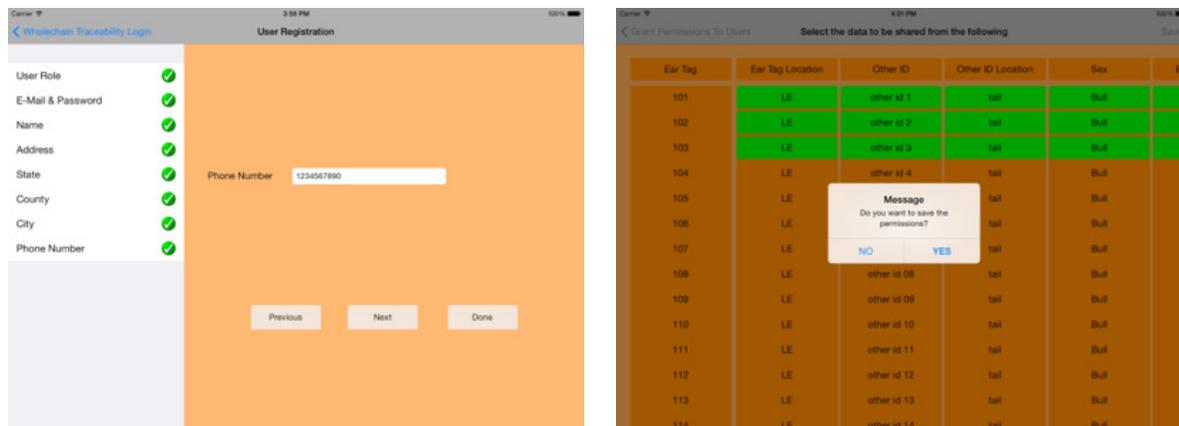


Figure 2. On the top is a screen shot of the registration page. On the bottom is an example of sharing data with another user by selecting the cattle id number.

In developing the current system, our team focused on beef cattle products. The long term vision is to incorporate poultry, pork, fish, vegetables, and fruits to create a more holistic traceability package. The envisioned software would have the capability to trace each food in a tv dinner back through the supply chain and be able to provide consumers and regulators this information at the touch of a button.

For more information about the NWCTI system, contact Dr. Michael Buser using the information below. YouTube videos related to the NWCTI system can be viewed at: <https://goo.gl/MwPhoS>.



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