

Advancing Animal Disease Traceability (ADT) Road Map for Louisiana

A Three-Year Plan

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Table of Contents

I. EXECUTIVE SUMMARY	3
II. CURRENT TRACEABILITY SITUATION	4
2.1 <i>Who are we?</i>	4
2.2 <i>Where are we now?</i>	4
2.3 <i>Strengths and Weaknesses</i>	5
2.4 <i>Opportunities and Threats</i>	5
2.5 <i>Inventory of existing infrastructure and suitability assessment</i>	6
III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY	7
3.1 <i>Vision Statement</i>	7
3.2 <i>Mission Statement</i>	7
IV. TRACEABILITY REQUIREMENTS	7
2.1 <i>Strategic goal(s)</i>	7
4.2 <i>Programmatic goals (objectives)</i>	7
4.3 <i>ADT Trace Performance Measures (TPMs)</i>	8
4.4 <i>Data requirements</i>	9
4.5 <i>Information technology plan</i>	9
4.6 <i>Resource requirements</i>	9
4.7 <i>Organizational needs</i>	10
4.7.1 <i>Executive support</i>	10
4.7.2 <i>Coordination and oversight procedures</i>	10
4.7.3 <i>Policy</i>	10
4.7.4 <i>Staffing</i>	10
4.7.5 <i>Budget requirements</i>	10
4.7.6 <i>Outreach (required to be addressed within the Road Map)</i>	11
4.8 <i>Monitoring and reporting interstate movement activity</i>	12
V. ADVANCING TRACEABILITY	12
5.1 <i>Ranking of priorities for advancement</i>	12
5.2 <i>Implementation of objectives</i>	12

I. EXECUTIVE SUMMARY

The Louisiana Department of Agriculture and Forestry (LDAF) is striving to develop a comprehensive, integrated animal disease traceability program that initially was built around its state law that requires an official brand inspection of all animals that are presented for public sale: Louisiana RS3:742. Inspection of cattle.

No livestock shall be sold at any public sale until such livestock have been offered for inspection by the seller to brand inspectors or a designee of the Livestock Brand Commission appointed for such purpose. Brand inspectors are authorized to inspect any livestock being transported by any means, or being loaded or prepared to be transported. Brand inspectors shall have the authority to inspect all livestock together with accompanying health documentation for each animal in conjunction with the Louisiana Board of Animal Health. Whenever health documentation for any animal is not in compliance with the requirements of the Louisiana Board of Animal Health, the brand inspector may stop all movement of the animal until all required health documentation is provided or may require the person who has possession of the animal to return the animal to the place of origin

Louisiana is primarily an export state and most of its livestock are sold through one of the seven USDA Approved livestock markets, so LDAF concentrated its initial traceability efforts on upgrading animal identification collection at those markets. Prior to 2010, auction market information (seller, animal description, backtag, NUES tag, brucellosis test result) was captured on hand-written VS Form 4-54 charts and antiquated DOS-based handheld devices that had to be transported to the USDA Area Office in Baton Rouge, LA for data retrieval. USDA staff downloaded market information to floppy disks and then LDAF staff uploaded data to the USDA Generic Database (GDB). Hand-written Brand inspection forms, called Check-ins, captured seller information, animal description, and back tag numbers and these forms were individually scanned into a state document imaging system with hard copies archived in boxes. Those records were searchable by sale date only and animal ID was found by scanning all market Check-ins (hundreds to thousands of forms) to find an ID and seller. This process has produced successful results in past traces, but the process from collection to searching was labor and time intensive and a decision was made to move to a faster, more efficient method of capturing and managing data. The decision became urgent with the announcement that the Louisiana USDA Area Office would close in 2011 and could no longer manage market data for the state.

So in 2011, LDAF introduced the USDA Mobile Information Management System (MIMS) into its markets and began the transition of market data from the GDB to the USDA hosted Surveillance Collaboration Services (SCS). Rugged handheld Trimble PCs were purchased and intensive statewide training was instituted for Board of Animal Health (BOAH) personnel. MIMS was able to capture market premises information and animal ID but did not address the Brand Check-in. So in 2012, LDAF introduced the Ft. Supply FaST Auction/Brand/eCVI system at one market for trial use in capturing all market data---Brand check-ins and official ID applied to replacement cattle that were run through the chute. The trial was successful and plans were made to leverage state funds, State Homeland Security Grant Program funds, and USDA Cooperative Agreement funds to purchase Archer Ultra Rugged Handheld PCs, laptops, routers, printers, and thumb drives to accommodate all 10 4 markets. Data is produced in an Extensible Markup Language (xml) file that can be emailed or transferred via thumb

drive from the field to the Baton Rouge office for seamless uploading to the Ft. Supply FaST Brand Central Office system where data is housed in a MySQL 5.x database. Ft. Supply Auction/Brand/eCVI software was phased into use at all auction markets along with more intensive statewide training of both BOAH and Brand personnel. In 2016, LDAF further expanded its electronic capabilities by introducing the StateVet.com platform hosted by SCS (on trial basis initially) to upload ICVIs and herd testing data directly into SCS. Louisiana's investment and use of electronic systems has greatly reduced our labor costs and has improved our ability to collect, manage, and search for data as part of our comprehensive electronic program to advance animal disease traceability in the state. In 2019, LDAF hired a new program specialist and transitioned from SCS to USAHerds for uploading import and export CVIs and herd testing data. In 2023, LDAF hired a new program specialist.

II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

The Louisiana Department of Agriculture & Forestry (LDAF), Veterinary Health Division is governed by the Board of Animal Health (BOAH) which was formerly known as the Livestock Sanitary Board (LSB). The prime mission of the LSB was to eradicate infectious diseases of livestock such as brucellosis, tuberculosis, and pseudorabies and LSB personnel tested cattle and swine at all markets and offered cattle brucellosis vaccinations to producers at no charge. The foundation of these disease eradication programs was the identification of cattle and swine with official identification (ID) that could be linked to an owner or point-of-sale in order to trace animal movements and contacts in an epidemiological investigation. Our efforts were successful and the state was declared tuberculosis free in 1994, brucellosis free in 2000, and pseudorabies free in 2003. After these landmarks, the LSB "modernized" by changing its name to the BOAH in 2008 and then discontinued its first-point-of-concentration brucellosis testing at auction markets and producer vaccination programs in 2010. We did continue Brand check-ins and ear tagging of livestock sold at public auction markets in order to maintain our database of animal ID.

2.2 Where are we now?

LDAF data collection and management protocols continue to involve the use of Trimble and Archer PCs and the Ft. Supply Auction/Brand/eCVI systems for use at auction markets. LDAF personnel, BOAH and Brand Officers, continue to work with livestock market personnel to inspect animals and to apply and record animal ID (Brite eartags or RFID tags, backtags) and to record seller information on all livestock offered for sale. Market data is entered into PCs in the field and then uploaded to the Ft. Supply Central office at the LDAF headquarters in Baton Rouge, LA for managing. Another upgrade was recently made in managing our disease testing data: testing data is now entered into USAHerds which allows for attachment of vaccination documents. In the past, we had to hand enter program test results into SCS but archive physical copies of the vaccination/testing documents outside of the program due to an inability to attach relevant files to entries. The ability to rapidly and efficiently manage data and to search for an animal ID is vital to our program and we are committed to further 5 developing and refining our integrated electronic disease management system based on standard data files that can be shared when needed. Electronic databases used to manage and track information include:

- LDAF state Server
- Ft. Supply Auction/Brand
- Ft. Supply Central Office
- SCS/Trace First
- USDA Animal Identification Management System (AIMS)
- USDA Standardized Premises Identification System (SPIS)
- USA Herds

2.3 Strengths and Weaknesses

A weakness in Louisiana’s traceability plan has been its records management of Interstate Certificates of Veterinary Inspection (ICVI) which in the past had been mailed to our office and stored in filing cabinets under state-of-origin and destination. Accredited veterinarians typically waited to submit records until they reached the end of a tablet or at the end of the year, or some never submitted ICVIs to our office. We have worked diligently to educate veterinarians about timely submissions and have encouraged them to email or fax documents to our office or to use an electronic CVI service. Once certificates are received by our office, LDAF personnel date-stamp, proof, and scan certificates into our state server. The LDAF program specialist then sends a pdf copy to states of destination and enters pertinent data USAHerds. In Spring 2019, we began uploading all import/export CVIs along with intrastate cattle health certificates to USAHerds. While this process can be time consuming, labor intensive and problematic over holidays or hurricane closure days when we don’t receive mail, this system is proving to be adequate for our searches. We also continued to market the LA fillable pdf eCVI modeled after the KS/CO standardized health certificate to veterinarians; this document is seamlessly uploaded as a file attachment into USAHerds. USAHerds also works with GVL and AgMove to automatically upload eCVI data from these sites to the database. We are working with VetSentry to achieve the same functionality.

LDAF has been proactive in equine identification because it has required permanent unique identification of horses being tested for equine infectious anemia (EIA) since 1994. Types of official ID accepted in the state are microchips, registration tattoos, or brands. The state’s program was even recognized at a 2017 National Institute of Animal Agriculture (NIAA) and U.S. Animal Health Association (USAHA) sponsored Equine ID forum. This system has served LDAF well in controlling EIA in Louisiana and has also been an asset to law enforcement and Animal Control in identifying animals in legal matters, welfare cases, and in natural disasters. However our document imaging storage database is dated and requires labor intensive scanning of EIA test charts, so alternatives are being investigated

2.4 Opportunities and Threats

Animal agriculture ranks 2nd to plant agriculture in Louisiana but it still is a vital component to the state’s economy and way of life. Agriculture was included in the State Homeland Security Strategy and was named as State Critical Infrastructure, so by virtue of these designations, we were invited to participate in the State Homeland Security Grant Program.

We were successful in acquiring grant money where we identified all-hazard risks to our sector with poultry, equine, and cattle being our top commodities. Primary threats identified included biological/zoonotic diseases, Agroterrorism, and natural disasters such as drought, flooding, and hurricanes. Animal Disease Traceability was included in our preparedness grants and we were able to use funds to purchase software vital to our electronic upgrades. As these grants have decreased, we now rely on state funding and cooperative agreement funds to continue our program. So far we have been successful in leveraging increasingly tight funds due to the savings in time and personnel costs afforded by our electronic systems. The development of faster, more efficient check-in systems at our auction markets has helped to identify and process animals during hurricanes. State auction markets have served as shelters in the past where animals were housed as groups and not checked-in which led to disputed ownership and tempers. A rapid and more efficient check-in system with LDAF personnel assisting with their equipment has led to better shelter options for our producers and markets.

An excellent outreach opportunity has developed as personnel trained to use the modern electronic equipment were able to network with industry and producers when showcasing our new capabilities at markets and on farms. A younger generation of employee has grasped the new technology and one LDAF AgSpecialist Supervisor has been working closely with Ft. Supply in implementing and trouble-shooting the electronic systems as they were introduced at the state auction markets. This LDAF employee even improved on the bar code reader function to capture backtags and was invited to speak at an International Livestock Identification Association (ILIA) brand conference on our Check-in program. Producers have asked us to teach them and their children how to use the PCs in managing their herds.

Beginning in 2019, LDAF, in partnership with the USDA, began piloting the use of RFID tags at two of the state's major livestock markets. The office has also issued RFID tags to private veterinarians to be used in place of the silver tags. The ultimate goal is to follow the USDA's timeline and support the expected transition from metal to RFID tags as recognized official ID.

In 2020, LDAF entered into a two-year planning and exercise program focusing on expanding the state's capability to effectively respond to a foreign animal disease (FAD) outbreak in livestock. The goal of this project is the development of standard operational procedures (SOPs) for key components of the state's FAD plan. The development of these SOPs will: 1) assist the state in preparation for the 2021 FAD Southern Agriculture Functional Exercise (SAFE) sponsored by the Veterinary Services (VS) National Training and Exercise Program (NTEP) and the Southern Animal Health Alliance (SAHA); and 2) develop operational guides essential to a rapid and coordinated response to a FAD outbreak. This planning is critical for LDAF to further develop its capabilities and capacity to effectively respond to, contain, and eradicate a FAD.

2.5 Inventory of existing infrastructure and suitability assessment

The LDAF Office of Animal Health currently has 1 Program Coordinator (Asst. St Vet), 4 Veterinary Medical Officers (VMO), 13 Agricultural Specialists (commonly called Animal Health Technicians-AHT), 2 Administrative Assistants,

and 1 Program Specialist (BOAH) and 5 Brand Officers (Brand Division) working on the program. Gaps are filled with student 7 workers and interns. Field personnel have PCs, thumb drives, laptops and printers. Check-in data is made available to market veterinarians electronically or in printed format to create ICVIs as needed. The USDA VS LA/MS District Epidemiologist and the Animal Identification Coordinator (AIC) assist with real and test traces. State VMOs and 4 USDA VS VMOs work on education and compliance activities with accredited veterinarians, livestock markets, and producers in their assigned areas of responsibility in the state. Both State and federal personnel work very well together and animal traceability is a priority for both veterinary regulatory offices.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision Statement

Our vision is to work with stakeholders in a coordinated effort to promote and ensure animal health, well-being and productivity to benefit the state and its citizens.

3.2 Mission Statement

Our mission is:

- to protect livestock from infectious diseases through monitoring, surveillance, response, containment, and continuity of business activities;
- to protect the public health and general welfare of Louisiana citizens by ensuring the health of livestock and poultry raised to enter the food chain; and
- to prepare for and respond to animal emergencies during declared disasters.

IV. TRACEABILITY REQUIREMENTS

The following categories must be described in the Road Map:

4.1 Strategic goal(s)

Louisiana's goal is to develop and implement a state-wide infrastructure for advancing animal disease traceability that is consistent with USDA standards. Furthermore, the state hopes to partner with other agencies, industry and producers to promote better ID management of livestock with a better product for marketing that will impose minimal intrusion into their private businesses.

4.2 Programmatic goals (objectives)

LDAF plans to achieve the following objectives with this project:

- Trace Performance Measures (TPMs): administer trace exercises to measure the elapsed time it takes to complete the four performance activities outlined below.
- Maintain and enhance the LDAF animal disease traceability program with administration of official identification devices, data collection, records maintenance, and information sharing.
- Electronic Records: use information from other State/Federal programs such as bovine brucellosis vaccinations, bovine brucellosis, tuberculosis, and trichomoniasis testing to add to its traceability database.

- Outreach: support animal disease traceability with stakeholders--veterinarians, livestock markets, academia, and producers with emphasis on compliance and enforcement.

4.3 ADT Trace Performance Measures (TPMs)

Louisiana will complete at least eight Trace Performance Measures (TPMs) using the four activities listed below by working with the USDA AIC. We will also use actual traces (slaughter reactors or Louisiana Public Records Requests) to meet or exceed our quota if official ID is used in the trace. The USDA AIC will collect source documents such as health certificates and vaccination documents which they, in turn, submit to the Traceability Staff at Fort Collins office. A member of the Traceability Staff will create a test trace and an email notice of a TPM will be sent from the Emergency Management Response System-2 (EMRS2) to the State. LDAF administrative personnel will then start the clock and search their databases for information to satisfy the performance measure. The LDAF Program Coordinator will complete the TPM in EMRS2 and will include Key Actions in the data entry to explain our processes taken to provide the information needed to complete the TPM. Louisiana received an excellent rating on its past TPMs and plans to maintain that rating and improve on times with our new eCVI capabilities.

Traceability Performance Activities

1. In what State was an imported animal officially identified?

Time it takes to determine the State/Tribe where an imported animal was officially identified

State/Tribe where the reference animal is located

Administering this activity is applicable only for AINS, in particular the 840 numbers

2. Where in the State was the animal officially identified?

Time it takes to determine the **physical location in the State where the animal was officially identified

State/Tribe where the reference animal was officially identified

This activity evaluates the accessibility and accuracy of records of tags applied to animals and tags distributed to producers and accredited veterinarians. Therefore, the official identification numbers selected do not need to be limited to animals that moved interstate.

3. From what State was an animal shipped?

Time it takes to determine the State an imported animal was moved from when it moved interstate into the State

State/Tribe that imported the reference animal

The State conducting Activity 3 may contact the exporting State to initiate Activity 4 for that State to administer

4. From what location was an exported animal shipped?

Time it takes to determine the ** physical location an exported animal was shipped from when it moved interstate

State/Tribe that exported the reference animal

** The physical location is to reflect the production unit (farm, ranch, etc.) where the animal was tagged (Activity 2) or moved from (Activity 4). If tagged at or

moved from a market, the physical location of the animal prior to the market (typically the farm/ranch of the consignor) is to be provided. For ease of reporting, the State completing the exercise is to list the city/State, PIN, or LID of the farm or ranch

4.4 Data requirements

LDAF plans to continue using official NUES metal eartags (Brite tags and orange vaccination tags) and will distribute and use them according to VS Memo 578.12 guidelines. We project distributing 10,000-20,000 tags quarterly from our office and by the USDA AIC. The state has used this alpha numeric system successfully in its disease programs and it offers a low cost method of identifying animals for interstate movement. Tags and pliers will be issued to regulatory veterinarians, private veterinarians, and producers while inventory lasts, and we will continue using AIMS to maintain distribution records. While we continue to distribute these NUES metal ear tags, we are actively working towards educating and marketing the use of RFID for producers to support the national call for a transition away from metal tags in favor of RFID tags. We maintain a supply of RFID tags from the national stockpile in our Baton Rouge office and have distributed these to private veterinarians and producers when requested for bovine and cervid herd testing in addition to using the tags in specific livestock markets. LDAF has developed a tracking form for private veterinarians who apply official ID. Veterinarians fill out and submit the state form which details the range of tags applied along with owner information. LDAF creates a Premises ID Number (PIN) and enters the tagging information into AIMS. Ear tag distribution is tied to PIN and these records are maintained on the USDA SPIS. Records will be shared upon request and official ID information on ICVIs is emailed to states of destination daily

4.5 Information technology plan

The top priority in implementing Louisiana's Traceability plan has been upgrading systems to capture, store, and search for data electronically. Louisiana's historic methods of capturing market data on paper, using antiquated handheld computers, and searching in-house servers were time and labor intensive and were no longer adequate for our needs. Ft. Supply systems and USAHerds have proven until now adequate for market (movement data) and program testing/vaccination data (stationary data) as well as for recording disease investigative reports and for handling Brand application/renewal requests. We have relied heavily on Ft. Supply IT support with their real-time trouble shooting capability as they can manage our PDAs and Central Office to help identify problems and to give tutorials. Electronic systems are also becoming more compatible with eCVIs (GlobalVetLink, LA eCVI, VetSentry, AgMove, VSPS) so many of our time sensitive/personnel issues with handling health certificates are being alleviated; but we still must increase our efforts in moving vets to these electronic documents. We are currently working with the LSU School of Veterinary Medicine to present electronic technology to veterinary students and rely heavily LDAF/USDA VMOs using their position to educate private veterinarians on their electronic health certificate options when the opportunity presents itself.

4.6 Resource requirements

Our plan has been expensive in implementing the new technology, but with a shrinking workforce we have been able to justify the labor saving technology and have received some state funding to offset disappearing Homeland Security funding and limited cooperative agreement funding. But all federal assistance with our program is greatly needed and appreciated.

4.7 Organizational needs

Over the past year, with the retirement of the former Assistant State Veterinarian, key support staff, and the COVID-19 pandemic, the LDAF Veterinary Health Division has learned the importance of cross-training. While these personnel changes were initially difficult to manage, ultimately, they have been positive as they have opened the door for new staff to join our team. As of now our staffing resources are adequate but we could use another data entry person to process EIA data. So again, USDA cooperative agreement assistance to our program is important.

4.7.1 Executive support

Executive support for our program is excellent. The LDAF Commissioner of Agriculture is a former large animal veterinarian, and he fully understands and supports the need for animal disease traceability. However, our Commissioner has pledged to the cattle industry that we would develop a private database to guard their market information. This overriding pledge has guided much of our development of private/public databases with information that can readily be shared when needed if faced with a disease outbreak in order to maintain continuity of business.

4.7.2 Coordination and oversight procedures

The LDAF Program Coordinator (Asst. State Vet) provides traceability updates to the Commissioner and Deputy Commissioner (State Vet) at quarterly BOAH meetings. Quarterly progress reports are submitted to the USDA Assistant Director (AD) for accountability. The Louisiana Government Performance and Accountability Act (LaPAS) requires our office to submit quarterly reports that detail program targets, accomplishments, and expenditures to the LDAF financial officer who then in turn submits them to the state legislative office to justify state funding for our program.

4.7.3 Policy

Our office adheres to all State hiring and spending policies. We have been audited by the State legislative office, US Homeland Security Grant Program, and USDA Cooperative Agreement Commodity personnel (ADT, ECSR) and have received positive results on all examinations; so we have no specific policy issues to address

4.7.4 Staffing

We have gone through a difficult year with personnel retirement, but this year has seen some new hires with new energy injected into our program. The new hires bring increased awareness of new technology to increase organization productivity and advancement in abilities within the field. We could use one more administrative assistant, but budget constraints will not allow that.

4.7.5 Budget requirements

Funding is decreasing across the board, but our office introduced cross-training for all personnel several years ago, so we are succeeding in spite of financial constraints. We have demonstrated positive results in our traceability program as

evidenced by our successful TPMs and actual traces from slaughter reactors, law enforcement requests, and public information requests. Due to the decrease in funding, a portion of the ADT cooperative agreement assists LDAF in purchasing new equipment, continued outreach and education, and IT support needed to perform traces quickly and accurately.

4.7.6 Outreach (required to be addressed within the Road Map)

LDAF has been very active with education, outreach, and enforcement of the traceability rule and will continue its proactive efforts to keep stakeholders informed of our efforts.

4.7.6.1 Accredited veterinarians

Category II accredited veterinarians are vital to the success of our traceability program with their insight into interstate movement of livestock and poultry. LDAF targets veterinarians with special news such as the availability of the free LA eCVI which can be used by both small animal and large animals accredited veterinarians; Due to the COVID-19 pandemic and reduced staffing, we've encouraged vets to transition to the eCVI to avoid wait-times associated with ordering and shipping paper CVIs. We present the eCVI annually at the Louisiana State Veterinary Medical Association (LVMA) Meeting and at the LSU SVM National Veterinary Accreditation Program (NVAP). State/Federal personnel have given talks at local, state, regional, and national meetings to network and discuss traceability issues with stakeholders. Area VMOs work with private vets on veterinary accreditation renewals and use that time to discuss LDAF disease programs for Category II Accredited DVMS, such as our calf-hood brucellosis vaccination program as an incentive for veterinarians to vaccinate and submit their paperwork with official ID to our office. In this program, as long as the budget allows, we pay accredited vets \$1/head for each calf vaccinated if the vaccination chart is submitted to our office. VMOs have access to a Traceability packet of information in digital form that they present to vets to stress the importance of official ID and submission timeframes for health certificates. VMOs will counsel private vets if an ICVI violation is reported and repeat offenders are issued a warning letter. Serious violations are escalated to the USDA AD for possible warning or investigation.

4.7.6.2 Slaughter plants

4.7.6.3 Industry as a whole

State administrative rules are being revised to be consistent with federal rules with concurrence of the BOAH that has representatives of all industry commodities. LDAF and USDA VS personnel attend local and state producer meetings to network and discuss traceability issues with stakeholders. The Commissioner holds a traceability session at the annual Farm Bureau Federation conference, the Assistant State Veterinarian speaks at the annual Cattlemen's Association meeting on traceability and all VMOs attend parish cattlemen's and veterinary association meetings when possible. Industry overall has been very supportive of our efforts to educate them about the rule and to keep them apprised of listening sessions to hear their feedback.

4.8 Monitoring and reporting interstate movement activity

LDAF is focused on improving interstate monitoring activity by improving its ICVI collection and management capability. Efforts to introduce eCVIs to private veterinarians have been more successful as more tech-savvy veterinarians join the workforce; we are now distributing our LA eCVI to Cat I and II veterinarians. This standard eCVI is used by 24 states and can be uploaded directly to USAHerds. With this and other compatible eCVIs, we can electronically search a tag or name and find a digital copy of CVI on the private system. The following data will be reported for quarterly reports using the USDA templates:

- Number of ICVIs and other interstate movement documents issued within the State for animals moving out-of-state by species;
- Number of ICVIs and other interstate movement documents received for in-shipments by species;
- Number of ICVIs and other interstate movement documents by species for move-in events
- Number of ICVIs and other interstate movement documents by species for move-out events
- Volume of distribution for all official animal identification devices issued by the State or USDA; and
- Program data involving official ID-cattle brucellosis vaccination, cattle brucellosis, tuberculosis, and trichomoniasis testing

V. ADVANCING TRACEABILITY

5.1 Ranking of priorities for advancement

Ranking of our priorities for advancement are:

- Education and outreach to stakeholders
- Upgrade of data capture at auction markets
- Increase use to RFID tags as official ID in the cattle population
- Upgrade of data management in office-auction market and program testing and vaccination records
- Increase use of LA eCVI and other eCVI platforms by private, accredited veterinarians
- Registering Premises ID within our database
- NUES tag distribution and recording

5.2 Implementation of objectives

Traceability will be implemented in phases, not only for financial considerations but also to gain acceptance and confidence in the enhanced electronic systems by our personnel, industry, and producers. The first priority was communication with stakeholders in upgrading data collection infrastructure at state auction markets. Next were improvements in data management in the office to monitor interstate movement where health certificates and Brand Check-ins were scanned or entered into databases and then archived through Fort Supply. Managing test data was essential to be able to offer proof of surveillance testing to maintain state status and the ability to trace an animal's ID became paramount with the introduction of mandatory TPMs. The implementation timeline is:

- Phase I: MIMS, SCS, PDAs, laptops to capture data at markets (2011)

- Phase II: PDAs, laptops, routers, printers, thumb drives, VetSentry eCVI agreement to capture data and Central Office to manage data (2012)
- Phase III: Ft. Supply FaST Auction/Brand/eCVI system in all markets to capture Brand Check-ins (2012-2015)
- Phase IV: SCS/StateVet.com to manage eCVIs, LA eCVI introduced; training on EMRS2 conducted to enter TPMs (2016-2018)
- Phase V: Transition to use of USAHerds for complete disease management and Brand inspection management (2019)
- Phase VI- Pursue replace for LA eCVI by working with other states to cost-share development project to produce a data-compliant fillable pdf (2020-2022)