

Advancing Animal Disease Traceability (ADT) Road Map for Mississippi

A Three-Year Plan

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Table of Contents

I.	EXECUTIVE SUMMARY	3
II.	CURRENT TRACEABILITY SITUATION	5
2.1	<i>Who are we?</i>	5
2.2	<i>Where are we now?</i>	6
2.3	<i>Strengths and Weaknesses</i>	7
2.4	<i>Opportunities and Threats</i>	7
2.5	<i>Inventory of existing infrastructure and suitability assessment</i>	8
III.	VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY	9
3.1	<i>Vision Statement</i>	9
3.2	<i>Mission Statement</i>	9
IV.	TRACEABILITY REQUIREMENTS	10
2.1	<i>Strategic goal(s)</i>	10
4.2	<i>Programmatic goals (objectives)</i>	10
4.3	<i>ADT Trace Performance Measures (TPMs)</i>	11
4.4	<i>Data requirements</i>	11
4.5	<i>Information technology plan</i>	12
4.6	<i>Resource requirements</i>	13
4.7	<i>Organizational needs</i>	13
4.7.1	<i>Executive support</i>	14
4.7.2	<i>Coordination and oversight procedures</i>	14
4.7.3	<i>Policy</i>	15
4.7.4	<i>Staffing</i>	15
4.7.5	<i>Budget requirements</i>	15
4.7.6	<i>Outreach (required to be addressed within the Road Map)</i>	16
4.8	<i>Monitoring and reporting interstate movement activity</i>	19
V.	ADVANCING TRACEABILITY	19
5.1	<i>Ranking of priorities for advancement</i>	19
5.2	<i>Implementation of objectives</i>	20

I. EXECUTIVE SUMMARY

Agriculture is Mississippi's number one industry, employing approximately 11.4% of the state's workforce either directly or indirectly. Agriculture in Mississippi is a 9.5-billion-dollar industry and makes a significant contribution to all 82 counties. The cattle industry in Mississippi includes 810,000 head of cattle and calves produced on nearly 14,000 farms and ranches. Since cattle are the primary livestock species considered under the federal animal disease traceability (ADT) rule, this roadmap for advancing ADT in Mississippi will concentrate on electronic infrastructure initiatives aimed at the Mississippi cattle industry. The focus for the initiatives will be strengthening the collaboration and education with accredited veterinarians, cattle producers, livestock markets and other stakeholder groups within the state to have continual improvement in the use and implementation of electronic animal identification and electronic transmission of animal sightings.

The primary function of the Mississippi Board of Animal Health (MBAH) is to control and eradicate communicable diseases of poultry and livestock; therefore, Animal Disease Traceability (ADT) is a core component to carry out the mission and is accomplished through its many daily activities. MBAH has been participating in animal identification and disease traceability programs since 2004. As Trace Performance Measures were developed, it became more apparent that records needed to be accessible electronically to meet the standards. The utilization of Trace First / CoreOne database management system has allowed Mississippi to make huge strides in having electronic data available to meet disease traceability needs. Correctly identifying and tracing animals when a disease occurs are critical for the success of MBAH to respond to disease occurrences, yet challenges remain in implementing a traceability system that covers all species of concern. This plan will focus on cattle, sheep and goats as traceability in the poultry and swine industries in the state is currently sufficient.

All livestock markets in Mississippi have been utilizing 840 electronic identification (EID) since 2020, with the data captured chute side into an Excel spreadsheet and emailed to MBAH. Office personnel move the data from each sale barn into specific movement records for the premises identification number for the sale barn and the information then is uploaded into StateVet.com for ADT for all sightings. Electronic official calfhood vaccination (OCV) records and certificates of veterinary inspection (ICVI) are encouraged, which allows seamless transfer of data into the database management program.

The MBAH roadmap to traceability success will follow the guidelines established by the United States Department of Agriculture (USDA) in 2018 to implement the ADT Program and the four overarching goals to advance ADT. The following plan outlines the path MBAH will take over the next three years using USDA's guidelines to advance animal disease traceability in Mississippi by:

- Increase the continued usage and distribution of electronic identification (EID) tags
- Continue to assign Premises Identification Numbers (PINs) and update them as new ICVI, OCV or other test accessions indicate ownership change of a premises
- Promote the increased utilization of electronic ICVI, OCV charts, Trichomoniasis testing charts and required reporting of cattle moving out-of-state from special livestock sales

There should be no issues with supporting animal health information needs with other States/Tribes/Territories and USDA nationally. We would provide requested information to these entities as requested. Successful implementation of this plan should result in a rapid response to catastrophic animal diseases, enable continuity of businesses for MS livestock and poultry producers, and enhance compliance with state and federal ADT rules.

- **What is the fundamental problem(s) this plan addresses?** The primary challenges are making sure all animals have official identification when moving interstate, obtaining the data associated with animal movements and identification, and rapidly retrieving ADT data.
- **What are the key elements in summary form?** Key elements of this road map include: Conversion of paper movement information to an electronic format, support for electronic data processes such as EIDs, automated electronic readers, eMovement Documents and Test Charts, and data sharing, outreach, monitoring and reporting of interstate movement activity.
- **What are the primary benefits?** Successful implementation of this plan should result in a rapid response to catastrophic animal diseases, enable continuity of businesses for MS livestock and poultry producers, and enhance compliance with state and federal ADT

Timeline proposed for this plan:

FY 2026:

- Continue entering official identification (ID) data (individual animal ID numbers, ICVIs, etc.) into the SCS/CoreOne. Utilize StateVet.com
- Continue to assist market personnel with tagging efforts at approved livestock markets.
- Provide funding for livestock field inspectors, ADT veterinarian and data entry personnel.
- Promote the use of 840 EID in livestock markets, exhibition animals, disease investigations and herd work.
- Increase invited speaking engagements and digital/print publication from MBAH ADT personnel and staff veterinarian to stakeholder groups such as Farm Bureau and Cattlemen's Association
- Encourage and support infrastructure for reading EIDs at approved livestock markets and other locations.
- Distribute orange EID OCV tags
- Obtain premise IDs and allocate 840 EID tags to markets, exhibition animals, producers, and veterinarians.
- Cooperate with USDA to provide compliance with ADT rule
 - Promote the use of electronic test charts and ICVIs through educational meetings with veterinarians, and inform veterinarians about states that will no longer accept paper ICVI

FY 2027:

- Continue entering official ID data (individual animal ID numbers, IICVIs, etc.) into the SCS/CoreOne. Utilize StateVet.com or purchase another software program.
- Promote the use of electronic test charts and ICVIs through educational meetings with veterinarians
- Seek funding for an electronic ICVI system for use by accredited veterinarians within the state.

- Provide funding for livestock field inspectors, ADT veterinarian and data entry personnel.
- Promote the use of 840 EID in livestock markets, exhibition animals, disease investigations and herd work.
- Increase invited speaking engagements and digital/print publication from MBAH ADT personnel and staff veterinarian to stakeholder groups such as Farm Bureau and Cattlemen's Association
- Encourage and support infrastructure for reading EIDs at approved livestock markets and other locations.
- Obtain premise IDs and allocate 840 EID tags to markets, exhibition animals, producers, and veterinarians.
- Cooperate with USDA to provide compliance with ADT rule

FY 2028:

- Provide continuing education to accredited veterinarians, livestock market and Animal Health official personnel in the use of EID reading equipment and data reporting,
- Continue entering all official ID into SCS/CoreOne (market tagging, test records and ICVI).
- Expand MBAH electronic capability for data capture, transmission, storage and retrieval. Obtain necessary software, hardware and equipment.
- Obtain premise IDs and allocate 840 EID tags to markets, exhibition animals, producers, and veterinarians.
- Cooperate with USDA to provide compliance with ADT rule

- \$220,000 per year is program cost, currently USDA contributes to less than 50% of annual cost

II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

The Mississippi Board of Animal Health is a 15-member board consisting of the Commissioner of Agriculture and other livestock industry members as well as university personnel such as the Department Head of Animal and Dairy Science at Mississippi State University and the Dean of the College of Veterinary Medicine. In addition, there is a member representing the Livestock Marketing Association, Mississippi Farm Bureau Federation, Mississippi Cattlemen's Association, and the state's second land-grant university Alcorn State University. Because of the unique make-up of this board, the board also acts as the ADT Advisory Group. Each board meeting, which occurs quarterly, an update and discussion on ADT issues occurs.

The primary focus of the ADT Program is to have traceability data available for disease investigations and control of outbreaks. This is accomplished through:

1. Education and Outreach to producer groups
2. Implementation of the use of radio frequency identification (RFID) tags for official identification
3. Adequate infrastructure at the state and local levels.
 - a. Information technology (IT)/Database infrastructure in the state office

- b. Computers and readers for livestock markets and veterinarians
 - c. Adequate supply 840 RFID Tags
4. Compliance Enforcement Activities

2.2 Where are we now?

[In assessing the existing situation, this section is intended to link inventory of existing infrastructure with a broader range of considerations.

Animal disease traceability is a critical component of the overall animal health program. We facilitate compliance with the United States Department of Agriculture (USDA) ADT rule by MBAH employees recording traceability data of the livestock at livestock markets. Current focus is on implementation of electronic identification at livestock markets to evaluate the advantages for MBAH staff and market interests. MBAH strives to continue enhancing our capabilities to electronically record and transmit ADT data in the field. We currently have Microsoft capable laptops and RFID readers in all markets to allow electronic recording of ADT data from the application of RFID tags. This capability will allow data to be uploaded directly into CoreOne/SCS with minimal manipulation. The MBAH staff work with livestock market owners and consignors to special cattle sales to ensure that replacement animals are tagged with RFID tags, and the information is submitted to the office staff electronically. All replacement bulls undergoing testing for trichomoniasis must have official identification, and RFID tags are provided to veterinary clinics to utilize for official identification.

- What measures of traceability capability are currently being used? What are the specific values and associated interpretation?

Within Mississippi, the current components of the ADT Program are as follows.

1. TraceFirst/CoreOne is used as the primary traceability data storage resource.
2. Animal movements are entered into CoreOne. Animal movements are collected in several ways.
 - a. Incoming and outgoing ICVIs may be paper or electronic based. In either case they are entered into statevet.com to be shared with other state's systems. MBAH has a dedicated data entry person to enter the movement data into StateVet.com to be uploaded into CoreOne.
 - b. Interstate movements at private and public sales are collected after the sale occurs to get animal identification and interstate movement information to enter into StateVet.com/CoreOne.
3. All Official Identification from Test Charts is entered into TraceFirst/CoreOne.
4. Official identification tags and Certificates of Veterinary Inspection distribution information is entered into the Trace First system.
5. Office staff reviews the incoming ICVIs for quality control; any animals not meeting entry requirements are traced and dealt with accordingly.
6. Field personnel are at each livestock sale and can monitor ADT compliance. There are also several national shows that occur and field personnel are present to check ICVIs on all animals entering the show grounds.
7. Animal traces are conducted for disease and exercise purposes.
8. There are multiple regional and state-wide meetings and shows that are opportunities for education by being present and passing out educational material.

What is the state of technology infrastructure? Capability in terms of size? The Board of Animal Health is part of the State Information Technology (IT) System, and the agency infrastructure is managed by the Mississippi Department of Agriculture IT Department giving the agency the necessary IT support and data sharing capability necessary for all ADT needs. There is still a great need for technology hardware in the form of laptops and readers to fully support the ADT Program. We continue to struggle with a lack of readers for sale barns, producers and accredited veterinarians.

Mississippi's veterinarians serving the food-animal and cattle sector have been slow to adopt technology for electronic data capture and transmission of ICVI and test charts. MBAH lacks the funding for an electronic ICVI platform that would be paid by MBAH and free for veterinarians to use. Rapid response to an outbreak and tracing animals forwards and backwards is greatly hampered by the use of paper records that have postal delivery delays and are often illegible and missing data.

- Are requests for information available 24/7, or only available M-F, 40 hours per week, if authorized personnel are present? Requests are only available during regular business hours via telephone, website or email.
- There is a continued decline in state funding and coupled with a decline in federal funding through cooperative program funding, carrying out the ADT work is increasingly difficult. Our equipment (readers and laptops) is aging and in need of replacement. What is the impact of state, tribe, or territory funding on capability? Federal funding for personnel support as well as technology infrastructure is a critical component of being able to carry out the program. **Currently cooperative agreement funds contribute less than 50% of needed annual funding**

2.3 Strengths and Weaknesses

Strengths: The MBAH is a small agency, but has a staff dedicated to carrying out its disease control mandate by the presence of a well-trained animal regulatory program and field force. Established protocols are routinely followed. MBAH has full-time personnel that enter data related to ADT. StateVet.com, SCS CoreOne, and Excel spreadsheets are used as the primary means of data collection, reporting and storage. The agency has developed close working relationships with the major livestock industry groups within the state, the Mississippi Veterinary Medical Association, and has developed collaborative efforts with Mississippi State University Cooperative Extension Service. These alliances have allowed the state to leverage the ability to carry its ADT activities. By virtue of its size, the agency can be flexible and respond to new issues or needs in a very timely manner, without the encumbrances often felt by larger organizations more political in nature.

Weaknesses: Mississippi is primarily a cow-calf beef production state; therefore, most cattle movements are calves being exported to other states for feeding/grazing purposes. In most of these operations electronic identification is not seen as an advantage, so until there is mandatory identification and listing of ID on ICVIs there will be little interest in EID usage. Having to manually enter official identification from paper or electronically scanned movement and test documents is costly and prone to data entry error and leads to loss invaluable time when trying to

trace diseased animals. Due to lack of state budget support (as has already been mentioned) MBAH is left without having personnel that can help manage IT issues related to traceability such as promoting and integrating electronic ICVIs, testing data etc. As technology changes, and more electronic ICVIs become available and as software systems change, keeping up with IT issues is a real struggle for small organizations such as MBAH. We are reliant on third party vendors and consultants to keep our systems current.

2.4 Opportunities and Threats

[The basis for this component is the assumption that improving ADT capability will create opportunities for those involved that would not be available should traceability not be optimized. At the administrative level, implementation of standards for improving efficiencies of information collection, storage, sharing, and security would be an opportunity. Every State/Tribe/Territory is subject to catastrophic events, such as tornados, wildfires, drought, winter storms, animal/zoonotic disease, flooding, possibly hurricanes

Opportunities: An ADT Program that is primarily based on electronic data is a huge opportunity for a small organization such as MBAH. The information is housed centrally, available 24/7 through internet and cloud-based programs, allowing management by only a handful of personnel. As systems develop, the ability for large animal veterinarians to create ICVIs electronically in the field and have the information submitted immediately to our office is a huge benefit to all concerned. MBAH is tasked as the lead agency in responding and mitigating impact of natural disasters and animal diseases that would affect animal agriculture. An efficient ADT program is essential to a timely response and a critical element in fulfilling this responsibility. Successful implementation of this plan will potentially save thousands of animals and mitigate the overall economic impact that disease threats have on producers and the state.

Threats: The two primary threats to ADT in Mississippi are the lack of interest by industry in moving animal traceability forward and the lack of budget support to keep the program moving forward. Lack of compliance enforcement is another real threat to the program. At the state level, there aren't enough inspectors to do a good job of compliance, and when there needs to be enforcement action, there is not enough USDA Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS) support for Investigative and Enforcement Service (IES) agents to complete an investigation.

2.5 Inventory of existing infrastructure and suitability assessment

Below are the resources available to MBAH to carry out the ADT Program.

- 1) Human resources
 - a) State Veterinarian oversees the ADT Program
 - b) Full time data entry clerk
 - c) 2- Office Support personnel that are available to help with permits and validating entry requirements of incoming ICVIs as well as issuing PINs
 - d) Deputy State Veterinarian helps oversee quality control and data entry of movement and identification information
 - e) Field Veterinarian to coordinate with the field inspectors to insure ADT electronic data capture at all stockyards
 - f) Livestock Inspector that oversees tag allocation management as part of job description

- g) Livestock Inspector that oversees Movement Document (ICVI) allocation as well as RFID Tag distribution as part of job description
 - h) Livestock Inspectors that attend 20 stockyards, Disease Traces, Compliance activities as part of job description
 - i) The state is divided into north and south regions. Field supervisors report directly to the State Veterinarian
- 2) Space availability
 - a) Administrative Office in Jackson MS where State Veterinarian and administrative support is housed, provided by State of Mississippi.
 - b) Field Office in Hattiesburg MS where Deputy State Veterinarian and Poultry Division is housed. Provided by State of Mississippi. This is where the data entry clerk works.
 - 3) Connectivity resources, both in office and in the field.
 - a) In both offices, connectivity is provided by the state.
 - b) Field connectivity requires laptops and wireless connectivity, as Livestock Inspectors all work from home.
 - 4) Access to USDA animal disease traceability and animal health information resources
 - a) The state has access to TraceFirst CoreOne System
 - 5) Organization of all existing paper record systems used to access ADT or animal health information
 - a) Paper documents are scanned using Laserfiche and documents are stored in the Hattiesburg office space for 5 years
 - b) Cattle movement records both intrastate and interstate are entered into CoreOne
 - 6) Computerized data management capability, including present storage size, speed, security, etc.
 - a) All Official Animal ID information and movement information is currently being uploaded in a state version of CoreOne by TraceFirst by using StateVet.com. This information is entered by a data entry clerk and overseen by the Deputy State Veterinarian.
 - b) Security of data is protected by virtue of the internet access being provided by the State Information Technology Services (ITS) system with its firewall and other security systems. MBAH falls under the State of Mississippi ITS security protocols. CoreOne also provides security to its system.
 - c) Internet speed is not an issue due to high quality internet provided by the State ITS Agency.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision Statement

Mississippi State Code authorizes the State Veterinarian under the authority of the Board of Animal Health to promulgate regulations and to initiate programs as necessary to prevent and control contagious diseases of animals. The MBAH, as the authorized entity in Mississippi, would have the resources and personnel to oversee an adequate ADT Program in coordination with USDA APHIS VS that protects the economy of Mississippi by overseeing disease and disaster responses in a manner that prevents further spread of disease or loss of livestock.

3.2 Mission Statement

As Mississippi's veterinary authority, the Mississippi Board of Animal Health improves the productivity, health, and quality of life for animals and people, and maintains and promotes the safety and availability of animals, animal products, and veterinary biologics.

IV. TRACEABILITY REQUIREMENTS

The following categories must be described in the Road Map:

4.1 Strategic goal(s)

Inherent in applying and accepting Federal funding for advancing ADT is accepting the overarching strategic goals of ADT:

1. Enhance electronic sharing of data among Federal and State animal health officials, veterinarians, and industry; including sharing basic ADT data with the Federal Animal Health Events Repository (AHER);
2. Increase use of electronic ID tags for animals requiring individual identification to make the transmission of data more efficient.
3. Enhance the ability to track animals from birth to slaughter through a system that allows tracking data points to be connected; and
4. Elevate the discussion with States and industry to work toward a system where animal health certificates are electronically transmitted from private veterinarians to State animal health officials.

4.2 Programmatic goals (objectives)

- Target, develop, and implement outreach messaging regarding data quality and processing for animal health information forms
- Monitor IICVI data quality by monthly meetings with state veterinarian, assistant state veterinarian and ADT Coordinator
- Input data into appropriate systems utilizing MBAH office personnel and CoreOne
- Improve retrieval of available traceability information through the increased utilization of electronic records which can seamlessly be integrated into the CoreOne database to eliminate data transcription errors
- Establish compatible standards for sharing data with States/Tribes/Territories and USDA when needed due to the utilization of a database compliant with national standards for data points necessary
- Integrate surveillance and traceability data by compiling test records, OCV charts and reportable disease information into the searchable database CoreOne
- Establish advisory committee for education and outreach to specific livestock groups and university and extension personnel
- Establish authority through statute with the Mississippi Secretary of State Office regulations
- Develop policy for ADT rules and requirements and voted into regulations by a majority vote of the MBAH board members
- Enhance IT infrastructure through funding requests from the Mississippi Legislature and coordination with the Mississippi Department of Agriculture and Commerce

- Establish and/or update tag distribution record system by training field staff with MBAH to be Animal Identification Number (AIN) managers and enter EID distribution records, as well as requiring accredited veterinarians to report to MBAH the distribution of tags to producers with PINs

4.3 ADT Trace Performance Measures (TPMs)

Completion of TPMs is a required ADT activity. Mississippi has been fortunate to not have many actual disease traces, so we rely mainly on Trace Exercises. Both the MBAH and USDA APHIS VS work with Accredited Veterinarians to make sure they understand the responsibilities under the ADT Rule.

4.4 Data requirements

[This section should reflect a thorough examination of how ADT data are acquired; monitored for quality; organized; stored; secured; retrieved; used for surveillance; and shared when required. This section would also contain a listing of needs for the near term and possibly mid-term future. Valuable traceability information continues to be collected and provided in paper format. This section should include a discussion regarding how paper and electronic animal health information systems will be used and integrated in maintaining ADT information. Fully describe standards to be used for location identification, if used

- Fully describe standards to be used for official animal identification, including arrangements with other States, Tribes, Territories, as well as official identification methods/devices used within the cooperator's jurisdiction
 - Mississippi follows the regulations set out in 9 CFR regarding the age and breed requirements for official identification of cattle
 - Cattle that receive an 840 AIN tag that also have a National Uniform Eartagging System (NUES) tag have both numbers entered into the CoreOne database in order to have traceability of an animal utilizing both official identification methods, if applicable
 - Mississippi is not a brand state that does not have to work with other in-state animal identification agencies other than accredited veterinarians and tagging sites that have agreements to provide official identification data to MBAH
 - The following is a list of standards for Official Identification by species:
 - Bovine: Official ear tags 840 RFID, NUES (when applied in accordance with 9 CFR part 86) or Tattoos when accompanied by the breed registration certificate.

- Ovine/Caprine: Official ear tags (i.e. Flock, Scrapie or AIN tags) or registration tattoos accompanied by the registration certificate.
 - Equine: Description sufficient to identify the animal, Electronic Identification (ISO 11784/11785 only after 03/11/2014, Digital photographs sufficient to identify the animal.
 - Swine: Official ear tags (NUES, Premises tags) with unique herd management number, or tattoos (as allowed by the ADT rule).
 - Poultry: National Poultry Improvement Plan (NPIP) approved devices or methods.
- What tag distribution record keeping systems are being used?
 - Animal Identification Number Management System (AIMS) is utilized by MBAH office personnel
 - CoreOne database is used to track distribution of 840 and NUES to from MBHA to accredited veterinarians or producers
- What data requirements exist for commuter herd agreements?
- What forms are approved for interstate movement in addition to IICVIs?
 - Swine movement records moving on lots are maintained in Excel format submitted by the referring accredited veterinarian
- How and when will data be shared with other States, Tribes, Territories, and USDA?
 - Mississippi holds ADT data to be confidential, but State Animal Health Officials can request trace data from the State Veterinarian.
 - All movement data is entered into statevet.com to be uploaded into CoreOne. The out of state data is then available to any federal or state entity that is set up to receive movement data from statevet.com. Mississippi has been doing this for over 11 years and is a very successful way to share data with other state and federal partners

4.5 Information technology plan

This section is to be devoted to specifying the IT needs as projected for the first, second and third years of the plan. A plan should be provided describing how the needs would best be addressed using State, Tribe, Territory and Federal resources. It should also include a description of how it fits within the broader architectural system and plan of the applicant's umbrella governmental or Tribal system, including specific back-up processes and services. A description of how the IT plan is compatible with business processes could be included as well.

Mississippi uses CoreOne Trace First as its disease management database, in addition to statevet.com to upload and share data with other users. In

addition, MBAH maintains a website that provides ADT information to the public.

- Discussion about state funding for electronic ICVI?
 - While USDA does provide the Veterinary Processing Streamline Services (VSPS) application, accredited veterinarians have expressed resistance to using VSPS due to technical challenges they face when using the system. We would like to look at CoreOne's eICVI system, but annual costs are currently cost prohibitive without federal support.

4.6 Resource requirements

- Is specific expertise needed that is not currently available?
 - No, we have needed expertise to carry out the program objectives.
- Will consultants be needed?
 - A strong working partnership with Mississippi State University Extension Center for Technology Outreach has provided technical support for the development of Excel Templates for collecting information from veterinarians and stockyards that provides consistency.
- Is a continuity of operation plan (COOP) in place and how frequently is it tested?
 - The ADT system is cloud based, allowing the workload to be spread over two locations in different cities. Therefore, the work can be accomplished wherever there is internet connectivity
- Are automated data capture resources needed?
 - MBAH regulations require an accredited veterinarian to be on site for approved cattle sales, and laptops are needed to supply some veterinarians with the hardware needed to capture EID data and transmit to MBAH

4.7 Organizational needs

[This section is intended to identify any organizational transformation that might be needed to implement the road map.

- Does a need for organizational change exist? MBAH is currently structured to administer the ADT Program
- Can additional resources be leveraged within the current administrative structure?
 - The Mississippi governor and legislature have not volunteered any increased funding for agricultural entities, unless there is a disease outbreak or disaster that needs short term immediate funding.

4.7.1 Executive support

[This section is intended to describe how current administrative authorities view the importance of a sound ADT system to the well-being of the livestock and poultry industries affected.

Agency and Industry support for ADT is not an issue. The Board of Animal Health shall have plenary power to deal with all contagious and infectious diseases of animals as in the opinion of the board may be prevented, controlled or eradicated, and with full power to make, promulgate and enforce such rules and regulations as in the judgment of the board may be necessary to control, eradicate and prevent the introduction and spread of diseases.

- How is accountability provided?
 - Accountability to stakeholders and vested parties for ADT is accomplished through quarterly meetings of MBAH, and an annual report is printed and distributed.

4.7.2 Coordination and oversight procedures

The Mississippi Board of Animal Health (MBAH) is the official state agency charged with controlling and eradicating contagious diseases of animals, with the State Veterinarian as the Executive Director. The Board of Animal Health is made up of 15 members both Officio and Ex-officio members. The Officio Members are appointed by the Governor to 4-year terms. Ex-officio Members include; Commissioner of Agriculture and Commerce; Mississippi State University Dean of College of Veterinary Medicine; Mississippi State University Head of Animal and Dairy Science; Mississippi State University Head of Poultry Science; Alcorn State University Head of Animal and Dairy Science. Officio Members include; Mississippi Veterinary Medical Association Member; Mississippi Poultry Association; Cattle Breeder; Dairy Breeder; Sheep Breeder; Farm Bureau Member; Horse Breeder; Livestock Marketing Association and Swine Breeder. Additional groups that are engaged in the ADT process are Mississippi State University Extension, Mississippi Farm Bureau and the Mississippi Cattlemen's Association. The MBAH is the advisory group and meets every quarter, so regular updates and issues regarding traceability can be discussed. In addition, there are always representatives from other livestock groups in attendance. The partnership with our federal partners, USDA APHIS VS is a vital component of the ADT effort in Mississippi. While the Choctaw Indian Tribe is located in Mississippi, currently there is no known livestock production occurring on their lands. The MBAH would work with and coordinate with the Choctaw Nation should this change.

4.7.3 Policy

There are no policy issues regarding ADT. The mission of the MBAH recognizes the need for ADT.

- Is there a need to address or change a state policy to align with 9CFR part 86 or the ADT OAIAS?
 - MBAH updated the state regulations in November 2024 with the mandatory transition to 840 EID tags
 - MBAH sends non-compliance letters to accredited veterinarians who fail to use official identification when required by law

4.7.4 Staffing

There are several staffing issues mentioned in the roadmap that need to be addressed to move the ADT Program forward in Mississippi. Animal Disease Traceability functions are embedded within several areas of MBAH activities; however, position needs are:

- A full time Animal Disease Traceability Coordinator
- Another data entry clerk, as the amount of paper ICVIs limits ADT data entry to be species-specific to cattle only and another full-time position would allow data entry for sheep, goats, and swine
- IT person to assist with accredited veterinarian educational needs for researching and using the various options for hardware and software for electronic capture and transmission of ADT data and eICVI

Job descriptions for the roles needed are provided with job announcement openings.

4.7.5 Budget requirements

[This section is to include not only amounts by project, but also a description of sources and accountability.

- How are you funded for ADT? State, Tribe, Territory versus Federal?
 - MBAH is funded by state General Funds and USDA Traceability Cooperative Agreement.
- What are the funding requirements projected by year for first, second and third year for implementing this plan?
 - \$220,000 per year for current program, any increase in needed equipment or other IT infrastructure will add to the above cost.
- Cost sharing is limited by the amount of money USDA gives the state of Mississippi
- How can the applicant insulate against budget cuts and shortfalls?
 - Through continued outreach to stakeholders and other agricultural organizations within the state, the

state legislature is lobbied to increase funding for the activities of the Mississippi Board of Animal Health

- Can other funding sources be leveraged to support this plan?
 - The supervisory board for the MBH is composed of members of stakeholder groups that could be solicited for additional funding.

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

[Successful implementation of any plan to advance ADT cannot be achieved without outreach to constituents primarily affected by the plan.]

4.7.6.1 *Accredited veterinarians*

Accredited veterinarians are instrumental to the advancement of ADT in livestock and poultry. All veterinarians are visited by MBAH or USDA VS personnel and given ADT material. In addition, there are state and federal personnel at the State Veterinary Medical Association Meetings to answer any questions. Regulatory lectures are given by the State Veterinarian to veterinary students several times during their education process.

- What is the plan for informing accredited veterinarians of the new guidelines for official ID and the specific three-year plan for implementation?
 - An email list of all accredited veterinarians within the state is held by the Mississippi Veterinary Medical Association and it is utilized to send email newsletters to veterinarians to update them on ADT rules and changes
- What is the plan for enhancing the use of eICVI, if any?
 - Continuing education modules at the winter meetings of the Mississippi Veterinary Medical Association (MVMA) are utilized to update veterinarians on the progress for MBAH to transition to electronic-only ICVIs
 - Veterinarians are provided the name of companies providing eICVI during the continuing education meetings
- What role, if any, does the accredited veterinarian have in providing low-cost,

official identification tags/devices to producers?

- Mississippi provides accredited veterinarians with no-cost 840 tags for utilization for OCV and replacement cattle from the state's allotment of tags from the USDA warehouse

4.7.6.2 *Slaughter plants*

Slaughter plants in MS are mainly small operations which process animals for individual customers. A working relationship between custom plants and USDA VS as well as MBAH is utilized to obtain samples for monitoring disease in swine, sheep, and goats where an owner's name, address, and animal identification are collected for sample submission.

4.7.6.3 *Industry as a whole*

How is industry being informed of the implementation plan?

- Articles are submitted from MBAH to the Cattle Business in MS magazines
- The State Veterinarian is a committee member for the state's livestock show rules board, and official identification of show animals and ICVI requirements of animals being exhibited within the state is addressed in MBAH regulations and livestock show rules
- ADT is part of Beef Quality Assurance training provided to producers through checkoff funded events and literature
- MBAH personnel speak to producer groups such as cattlemen's association county meetings, livestock associations such as MS Beef Cattle Improvement Association, and youth organizations such as 4-H and Future Farmers of America (FFA), as well as collegiate

- cattlemen's association at Mississippi State University
 - MBAH veterinarians attend Mississippi Farm Bureau Federation Commodity Group meetings to be aware of and speak to constituent issues of ADT
 - MBAH has membership on some advisory groups to ensure ADT is a topic of interest
 - The state's largest youth livestock shows are organized through Mississippi State University Extension and the Department of Animal Science, with all of the 840 ear tag numbers and owner's addresses submitted to MBAH in an Excel format which is further uploaded into CoreOne
 - How is the advisory committee being leveraged for this continuing education purpose?
 - The MBAH board has representatives for the cattle industry, swine industry, poultry industry as well as the Executive Vice President of the Cattlemen's Association and Poultry and they can take information presented at MBAH quarterly meetings to their respective businesses and organizations.
 - How are under-represented and under-served communities being included in the outreach plan?
 - Print brochures regarding biosecurity, premises registration and several bovine diseases requiring official identification are available at trade show booth and exhibit tables are various places and events such as livestock markets and livestock field days
 - MBAH has collaborated with Alcorn State University in reaching underrepresented youth involved in agriculture

4.8 Monitoring and reporting interstate movement activity

- How will the number of animals and the number of shipments be monitored that move interstate?
 - Refer to section 2.5 of the ADT Road Map document for technical answers where CoreOne and StateVet.com are utilized to track animal movements. Quarterly reports are submitted to USDA as a requirement of Cooperative Agreement funding, and many of the questions are answered on a quarterly basis.
- How will the data be verified or validated?
 - ICVIs that are missing data or where accredited veterinarians failed to use official identification will receive notice of “unapproved” ICVI from MBAH State Veterinarian
 - MBAH’s contractual agreement with TraceFirst / CoreOne provides for technical service answers to address the validity of sightings and data entry
- The following data should be tracked and available upon request
 - Number of IICVIs and other interstate movement documents created within the State/Tribe/Territory on a year-to-date basis for move-out animals
 - Number of IICVIs and other interstate movement documents received for move-in animals
 - Number of animals by species and class for move-in events associated with IICVIs and other interstate movement documents, indicating the number of animals officially identified and the number not officially identified
 - Number of animals by species and class for move-out events associated with IICVIs and other interstate movement documents, indicating the number of animals officially identified and the number not officially identified
 - Volume of distribution for each official numbering system/device issued by the State/Tribe/Territory and/or Area Veterinarian in Charge (AVIC) office, including backtags by market or slaughter facility]

V. ADVANCING TRACEABILITY

5.1 Ranking of priorities for advancement

Imperative to the success of ADT in Mississippi is the continued availability of RFID tags from the USDA warehouse.

- In addition, funding for further RFID reader technology, such as panel readers for the largest stockyard are necessary to demonstrate the feasibility of electronic identification to the cattle producers within the state

- Continued funding for hand-held readers is needed to provide the hardware to enable large animal practitioners to utilize RFID on farm.
- The availability of fillable pdf laboratory forms paired with readers is necessary for veterinarians to increase the utilization of electronic transmission of test forms. This would decrease the possible data entry errors at the veterinary diagnostic laboratory and stop MBAH from typing in laboratory accession data into CoreOne.
- Is a phased-in approach appropriate over the three-year period?
 - Unexpected disease outbreaks such as HPAI in dairy cattle and possible infestations with New World Screwworm stress the need for funding for MBAH to respond to situations that require official animal identification and movement permits.
 - The ADT Road Map listing staff and IT needs for MBAH would be fluid and greatly increase in the event of a large-scale need for 840 tags, readers, and hardware to collect and transmit animal movement information to MBAH
- Are various components dependent upon measurable successes rather than defined time periods?]

5.2 Implementation of objectives

As outlined in our yearly submitted workplans, we continue to address as best as possible each of the objectives. However, with continued decrease in federal funding and increases in cost of business we are barely able to conduct the existing work. Just doing the existing work is more and more difficult to accomplish. We need additional funding just to accomplish our current work! Current funding levels constrain our ability to meet our traceability goals, posing a challenge for projecting future ADT needs.

Priority of Objectives:

1. Continue to distribute 840 tags to veterinarians and producers
2. Maintain current IT infrastructure
 - a. Try to replace outdated laptops
 - b. Try to replace broken readers
 - c. Continue to support our veterinary community implementing electronic data transfer
3. Continue to conduct education and outreach
4. Continue to convert paper data to digital to enter into the CoreOne System
5. Should new money ever become available, we will institute an all electronic CVI system. It will cost about \$50,000/year