

**ADVANCING ANIMAL DISEASE
TRACEABILITY
ROAD MAP FOR
ALABAMA**

A Three-Year Plan

Tony Frazier, DVM

STATE VETERINARIAN
ALABAMA DEPARTMENT OF AGRICULTURE AND INDUSTRIES
1445 FEDERAL DRIVE
MONTGOMERY, AL 36107
334-240-7253

Submitted to:
K. Mark Krause, DVM
AVIC FOR ALABAMA-TENNESSEE
VETERINARY SERVICES
ANIMAL AND PLANT HEALTH INSPECTION SERVICES
UNITED STATES DEPARTMENT OF AGRICULTURE

June 2019

Table of Contents

I. EXECUTIVE SUMMARY	2
II. CURRENT TRACEABILITY SITUATION	2
2.1 Who are we?	2
2.2 Where are we now?.....	2
2.3 Strengths and weaknesses	4
2.4 Opportunities and threats	4
2.5 Inventory of existing infrastructure and suitability assessment	4
III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY	5
3.1 Vision Statement	5
3.2 Mission Statement.....	5
IV. TRACEABILITY REQUIREMENTS	5
4.1 Strategic goal	5
4.2 Programmatic goals	6
4.3 Animal disease traceability performance measures	6
4.4 Data requirements	8
4.5 Information technology plan.....	8
4.6 Resource requirements	8
4.7 Organizational needs.....	9
4.7.1 Executive support.....	9
4.7.2 Coordination and oversight procedures	9
4.7.3 Policy	9
4.7.4 Staffing.....	9
4.7.5 Budget requirements	9
4.7.6 Outreach.....	9
4.8 Monitoring and reporting interstate movement activity.....	10
V. TRACEABILITY IMPLEMENTATION	10
5.1 Ranking of priorities for advancement.....	10
5.2 Implementation of objectives.....	101

I. EXECUTIVE SUMMARY

Protecting Alabama's agriculture by safeguarding animal health and productivity is vital to the citizens of Alabama. Healthy livestock and poultry are one component to providing the public a safe, affordable, and wholesome food supply. Preventing the introduction of foreign animal diseases that harm both livestock and the livelihoods of producers also creates economic stability and opportunity. In addition, when Alabama livestock are healthy and disease prevention and control measures are adequate, our trading partners have confidence in our products. While ranchers and farmers work hard to protect their animals and their livelihoods, there is no guarantee their animals will be spared from disease; disease events can happen accidentally or intentionally. Rapid response systems minimize economic impact when diseases enter this state and disrupt the movement of livestock.

Animal disease traceability is critical to the success of Alabama's disease control activities. While prevention is our priority, an effective response system must be in place in the event of a disease outbreak. The potential emergence of highly contagious diseases makes that need more urgent. To be better able to prevent disease from spreading and to eradicate disease where it exists, we must be able to quickly trace infected and exposed animals. Traceability is a tool that reassures the Alabama livestock producer, consumer, and trading partners because of its role in safeguarding animal health. The faster we can trace sick animals, the faster we can stop the spread of disease and resume normal movements.

II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

This roadmap has been prepared and will be implemented by the Alabama Department of Agriculture and Industries (ADAI). The ADAI serves the livestock producers of Alabama which are represented by industry stakeholders. The state veterinarian has organized the Animal ID Working Group made up of representatives from these industry stakeholders. This includes the Alabama Cattlemen's Association, the Alabama Poultry and Egg Association, the Alabama Open Horse Association, the Alabama Horse Council, the Alabama Farmer's Federation, the Alabama Beef Cattle Improvement Association, the Alabama Cooperative Extension Service, ADAI and USDA/APHIS/VS. The working group meets quarterly to discuss application and implementation of animal traceability.

2.2 Where are we now?

Currently, the ADAI requires by rule that certain livestock be individually identified prior to being imported into the state. This is reviewed by staff of the state veterinarian for accuracy and completeness as it appears on ICVI's. Information from import ICVI's is now being entered into the electronic data system USAHerds and sorted by state. A search can be made with history of date of importation, consignor/consignee information, official animal identification or accredited veterinarian information. Export ICVI's are managed in a similar fashion. Electronic CVI's as

provided by several vendors to accredited veterinarians, can be uploaded directly into the USAHerds database. Presently, ICVI's are reviewed by trained staff for accuracy and completeness. Deficiencies are noted and a letter describing such is sent to the State Animal Health Official in state of origin. Such information received on veterinarians within Alabama is forwarded to issuing veterinarian by regular mail. This includes a joint letter signed by the state veterinarian and the AVIC with details of the deficiency and references to the CFR that describes veterinary accreditation responsibilities related to proper issuance of the ICVI. This process may include a face to face meeting with the issuing veterinarian and field VMO's.

ADAI has continued to shift the application of metal tags and the recording of such tags to the producer, local livestock markets and/or the accredited veterinarian. The distribution of the metal ear tags (NUES tags) is made by the state veterinarian's office upon request from producers and will continue to be administered by ADAI. ADAI will support the timeline for transition to official RFID tags as presented by USDA APHIS VS. ADAI is currently providing official RFID tags for show cattle. Official metal ear tags and RFID tags are assigned to a premises number obtained through the Standardized Premises Registration System (SPRS) and tag numbers managed by the Premises ID Coordinator. Currently, four stockyards are implementing the use of RFID tags for cattle that require official identification. Required cattle are tagged and tags are read by hand-held readers and uploaded to a spreadsheet that is distributed to the market's accounting system and forwarded to the state veterinarian's office. Once received by the state veterinarian's office, this searchable spreadsheet is then uploaded into USAHerds. Plans to increase the use of these tags through stockyards throughout the state over the next year are being developed. Currently, ADAI maintains RFID infrastructure and will be updating these platforms in partnership with the Alabama Cattlemen's Association. The intent is to demonstrate such technology so that markets can decide which application better fits their system. The Alabama Cattlemen's Association plans to cost-share with livestock markets to enhance infrastructure.

Metal and RFID tag distribution information is entered into the USAHerds database once assigned to a premises. Accredited veterinarians that are assigned official tags notify our office when tags are distributed to producers. Once official identification tags are assigned to specific markets or tagging sites in our office, they are distributed by field staff. Our office receives market records electronically or by paper that are filed electronically. Spreadsheets received from markets using RFID tags are uploaded directly into USAHerds.

The ADAI continues to support Brucellosis-free herd certification, Brucellosis calf hood vaccinations, and TB-free herd accreditation programs that require official identification.

2.3 Strengths and weaknesses

ADAI strengths include the presence of well-trained staff and field personnel. In addition, the ADAI has strong and established relationships with industry stakeholders that are key to advancing ADT in Alabama.

Presently a search for animal identification information held by ADAI is only available during office hours of 8-5 Monday through Friday. However, after hour emergency search for information could be achieved by the state veterinarian or associate state veterinarian. Information held by livestock markets presents a challenge and will be discussed under that topic. Currently traceability at the markets has been achieved through relationships with market personnel and state/federal field staff.

2.4 Opportunities and threats

As mentioned previously, one challenge exists when animal movement information is needed from data bases held by livestock markets. Few of the state's 22 livestock markets are large enough to maintain staff 24/7 so to as facilitate a potential records search. Market staff are only available to provide records access on the day of regular scheduled market sale. Therefore, if a search for animal movement is required, it could be the next sell or business day before office staff could assist.

Adequate funding is an ongoing challenge to most programs with ADT being no exception. ADAI may be faced with potential general fund cuts to the Agency for the next upcoming state budget cycle. Additional funds for personnel, IT software and hardware support will be sought.

Another challenge faced is the struggle to secure producer and stakeholder buy in to the ADT program on a broad multispecies scale from the large full-time producer to the small producer and hobby farmer. The credibility and usefulness of livestock identification is somewhat increasing, especially for the larger producer, but remains apathetically perceived by some. Many producers still fail to understand the importance of rapid traceability in a livestock disease outbreak or the cost associated with such an outbreak. Some within the industry continue to feel that the cost of implementation of ADT will be entirely placed on the industry.

Opportunities to meet these challenges involve the management of ADT and premises registration by state officials, implementing the use of electronic identifiers with programs to search data electronically and remotely, educate producers on the transition to RFID technology and the benefits of electronic production records and work to secure federal cooperative agreement funding where available.

2.5 Inventory of existing infrastructure and suitability assessment

ADAI's human resources available for traceability purposes include: 1 state veterinarian, 2 associate state veterinarians, 2 veterinary medical officers, 3 animal health technicians, 3 administrative assistants, and 2 temporary employees. Standard connectivity is in place in the office. Field staff are equipped with smart phones and computers with wireless connectivity

capabilities. The ADAI has departmental IT support to maintain computers, software, and cell phones. All paper records systems are maintained in storage at the ADAI. Necessary personnel have access to the required databases. ADAI has also equipped some field personnel with handheld and/or wand RFID readers.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision statement

The ADAI strives to advance traceability to further protect Alabama's agriculture by safeguarding animal health and productivity. Healthy livestock is one component to providing the public a safe, affordable and wholesome food supply. Preventing the introduction of foreign animal disease that harm both livestock and the livelihoods of producers also creates economic stability and opportunity.

3.2 Mission statement

The ADAI mission is to improve the accuracy and efficiency of animal traceability in order to enhance the effectiveness of ADAI in the event of an animal disease outbreak or natural disaster.

IV. TRACEABILITY REQUIREMENTS

4.1 Strategic goal

To further develop and implement a State-wide infrastructure for advancing animal disease traceability compatible with State and USDA standards.

The ADAI plans to continue to strengthen current traceability measures by utilizing the USA Herds data base management system. The data collected by the Brucellosis and TB program will be entered in USA Herds.

Additionally, ADAI's current rule requires official identification, defined for each species, for livestock within the state of Alabama whenever a change of ownership occurs for the purpose of disease control. Exceptions to these requirements are defined for each species. Livestock moved interstate would continue to have to comply with official identification and other documentation requirements in disease program regulations.

In addition, ADAI will implement the four overarching goals for advancement of Animal Disease Traceability as described by USDA. These goals will include:

- Advance the electronic sharing of data among federal and state animal health officials
- Use electronic ID tags for animals requiring individual ID
- Enhance the ability to track animals from birth to slaughter
- Increase the use of electronic animal health certificates

4.2 Programmatic goals

The pilot project initiated to apply RFID tags to cattle that are required to be tagged in livestock markets will be promoted to include additional livestock markets within the state. Over the next three years ADAI will encourage participation in this project with plans to implement the use of RFID tags in cattle that require official ID by 6 or more livestock markets per year. Also, ADAI will shift the application of RFID tags and the recording of such tags to the local livestock markets and/or the accredited veterinarian. The distribution of the RFID tags to the livestock markets and accredited veterinarians will continue to be administered by ADAI but will eventually become the responsibility of the user. ADAI projects the need for approximately 60,000-70,000 RFID tags for cattle that move through market channels, based on data from Alabama Market News Reporting Section.

ADAI now plans to encourage and assist the accredited veterinarian and livestock market to become Animal Identification Number managers. This will allow the distribution of RFID tags to be industry driven. ADAI will provide premises ID numbers using the SPRS and plans to provide printed plastic card type device with producer's name, address and premises ID number(s) on the card.

4.3 Animal disease traceability performance measures

The ADAI will take the role of leadership in the further advancement of ADT by writing and enforcement of needed regulations to ensure a robust traceability program is in place. Training of office and field staff will be ongoing and regular testing of the program to measure progress or deficiencies. This will be at least quarterly. The goal will be to reach and maintain certain performance standards.

Performance Standards:

- Notify State/Tribe in which reference animals were officially identified within one business day. Should animals require tracing, ADAI will notify State/Tribe by either or both phone call and e-mail to the state animal health official.
- Identify traceability unit in which reference animals were identified within 5 business days and in the future within 2 business days. Presently a search for animal identification information held by ADAI is only available during office hours of 8-5 Monday through Friday. However, after hour emergency search for information could be achieved by the state veterinarian. Currently traceability at the markets has been achieved through relationships with market personnel and state/federal field staff. Recent MCI Brucellosis responder investigations and a test of the metal ear tag pilot project have given adequate results. Upon receiving notice of a trace, buyer/seller information has been discovered within 24 hours and farm visits made within 5-7 days.

- Notify State/Tribe from which the reference animals were shipped within 7 business days and in the future within 3 business days. Should animals require tracing, ADAI will notify State/Tribe by either or both phone call and e-mail to the state animal health official.
- Identify the traceability unit from which the reference animals were shipped within 5 business days and in the future within 2 business days. Presently a search for animal identification information held by ADAI is only available during office hours of 8-5 Monday through Friday. However, after hour emergency search for information could be achieved by the state veterinarian. Currently traceability at the markets has been achieved through relationships with market personnel and state/federal field staff. Recent MCI Brucellosis responder investigations and a test of the metal ear tag pilot project have given adequate results. Upon receiving notice of a trace, buyer/seller information has been discovered within 24 hours and farm visits made within 5-7 days.

ADAI will continue to implement the USDA ADT rule that supports the needs of the state veterinarian in a disease event and meets the needs of livestock stakeholders. The application of the premises registration system will be used, the distribution of silver metal ear tags will continue until the end of the calendar year 2020, the transition to electronic identifiers will continue and the use of electronic CVI's will be supported by ADAI. Supporting regulations will be written where needed.

ADAI has continued to shift the application of metal tags and the recording of such tags to the producer, local livestock markets and/or the accredited veterinarian. The distribution of the metal ear tags (NUES tags) is made by the state veterinarian's office upon request from producers and will continue to be administered by ADAI. ADAI will support the timeline for transition to official RFID tags as presented by USDA APHIS VS. ADAI is currently providing official RFID tags for show cattle and to stockyards that are tagging cattle that require official identification. Official metal ear tags and RFID tags are assigned to a premises number obtained through the Standardized Premises Registration System (SPRS) and tag numbers managed by the Premises ID Coordinator. Currently, four stockyards are implementing the use of RFID tags for cattle that require official identification. Required cattle are tagged and tags are read by hand-held readers and uploaded to a spreadsheet that is distributed to the market's accounting system and forwarded to the state veterinarian's office. Once received by the state veterinarian's office, this searchable spreadsheet is then uploaded into USAHerd. Plans to increase the use of these tags through stockyards throughout the state over the next year are being developed. Currently, ADAI maintains RFID infrastructure and will be updating these platforms in partnership with the Alabama Cattlemen's Association. The intent is to demonstrate such technology so that markets are able to decide which application better fits their system. The Alabama Cattlemen's Association plans to cost-share with livestock markets to enhance infrastructure.

4.4 Data requirements

Premises identification shall follow standards set by USDA APHIS VS and the SPIS. Location identification shall be allocated through the USA Herds software. Alabama's official identification standards follow 9CFR. Currently, ADAI distributes NUES tags to accredited veterinarians, livestock markets, and producers. ADAI will offer RFIDs to producers for cattle that are required to be tagged at no cost while supplies last. Traceability data will be shared with USDA APHIS VS upon request. Currently, the ADAI requires by rule that certain livestock be individually identified prior to being imported into the state. This is reviewed by staff of the state veterinarian for accuracy and completeness as it appears on ICVI's. Information from import ICVI's is now being entered into the electronic data system USAHerds and sorted by state. A search can be made with history of date of importation, consignor/consignee information, official animal identification or accredited veterinarian information. Export ICVI's are managed in a similar fashion. Electronic CVI's as provided by several vendors to accredited veterinarians, can be uploaded directly into the USAHerds database. Presently, ICVI's are reviewed by trained staff for accuracy and completeness.

ADAI has continued to shift the application of metal tags and the recording of such tags to the producer, local livestock markets and/or the accredited veterinarian. The distribution of the metal ear tags (NUES tags) is made by the state veterinarian's office upon request from producers and will continue to be administered by ADAI. ADAI will support the timeline for transition to official RFID tags as presented by USDA APHIS VS. ADAI is currently providing official RFID tags for show cattle. Official metal ear tags and RFID tags are assigned to a premises number obtained through the Standardized Premises Registration System (SPRS) and tag numbers managed by the Premises ID Coordinator.

4.5 Information technology plan

The ADAI databases are maintained by ADAI IT staff. As state and federal funding allows, ADAI will continue to invest in upgrades in information technology equipment and infrastructure. New alternatives and databases will continue to be researched and evaluated.

4.6 Resource requirements

Automated data capture equipment and resources such as RFID readers (wands, panels), computers, etc are needed for all 22 livestock markets in Alabama. ADAI is working in partnership with the Alabama Cattlemen's Association to try and provide initial startup funding for infrastructure needs for livestock markets. The intent is to demonstrate such technology so that markets can decide which application better fits their system. The Alabama Cattlemen's Association plans to cost-share with livestock markets to enhance infrastructure.

4.7 Organizational needs

4.7.1 Executive support

All executive officials within the ADAI are aware of the need for improved animal disease traceability and are briefed on progress of traceability on a routine basis.

4.7.2 Coordination and oversight procedures

The ADAI Animal ID Working Group meets quarterly to discuss issues regarding animal traceability or more often as issues arise. The agenda is prepared by the state veterinarian. Attendance, minutes, etc are collected at each meeting. The Animal ID Working Group is provided up-to-date information on animal disease traceability in Alabama and the US. The industry stakeholders that make up this group provide help provide industry input and assist with dissemination of information to their respective producer groups.

4.7.3 Policy

ADAI implemented the Animal Disease Traceability Rule (80-3-6-40) effective January 1, 2013.

4.7.4 Staffing

ADAI veterinarians and staff will oversee the collection, maintenance, storage and availability of traceability data. Field personnel (veterinarians and technicians) will oversee compliance and investigation of traceability events in the field. Office staff will be responsible for data entry and storage.

4.7.5 Budget requirements

Animal disease traceability in Alabama is funded using both state and federal funds. The USDA APHIS VS cooperative agreement funding provides \$111,366 annually to support ADAI traceability goals.

4.7.6 Outreach

4.7.6.1 Accredited Veterinarians

ADAI will continue to host quarterly animal ID working group meetings to develop strategies for ADT advancement. The State Veterinarian will continue to present ADT activities and areas of involvement for accredited veterinarians at the annual Alabama Food Animal Conference. The state veterinarian's office, in conjunction with USDA officials in the state, produce a biannual newsletter with timely information for accredited veterinarians.

4.7.6.2 Livestock markets

ADAI serves as an advisor to the Alabama Livestock Marketing Association and attends meeting with the organization to keep them apprised of all issues related to ADT. In addition, ADAI staff make routine visits to the livestock markets in the state. In cooperation with the Alabama Cattlemen's Association, the ADAI

has initiated a project to outfit the twenty-two livestock markets in the state with RFID readers and computers. In addition, ADAI staff have been visiting with each stockyard to explain and demonstrate the use of RFID readers and software that we will be used.

4.7.6.3 Industry as a whole

As an advisor to stake holder groups such as Alabama Cattlemen's Association, Alabama Farmer's Federation, Alabama Beef Cattle Improvement Association and Alabama Livestock Marketing Association, the state veterinarian and staff will provide outreach materials with training on ADT to these groups at every opportunity. ADAI will coordinate with the Alabama Cooperative Extension Service to develop an outreach program for under-reached livestock owners at the county level. This will be a combination of face to face meetings and use of the video conferencing capabilities within the Extension system. Over the next three years these sessions can be targeted to different species groups. For example, the first year the target audience will be cattle owners that have few animals or hobby farms. Next sessions can be small ruminants followed by other species.

4.8 Monitoring and reporting interstate movement activity

ADAI is using USAHerds to record animal movement data received from ICVI's. Information from import and export ICVI's will be entered including accurate origin and destination (and this linked to SPRS where available), number of animals, species and class, date ICVI written, and accredited veterinarian information. Electronic CVI's sourced from providers such as Global Vet Linc, AgView, VSPS, etc. are also being entered into USAHerds, as well.

ADAI will monitor and report, in a quarterly report format, the number of:

1. ICVIs created by species
2. ICVIs received by species
3. Animals permitted to be moved in by species
4. Animals permitted to be moved out by species
5. USDA official tags/devices issued

V. TRACEABILITY IMPLEMENTATION

5.1 Ranking of priorities for advancement

1. Increase use of RFID technologies across Alabama.
2. Increase the use of electronic systems to collect and submit traceability data.
3. Continue outreach and education to stakeholders through newsletters, informational brochures/pamphlets, ADAI website.
4. Maintain and monitor ADAI traceability databases

5.2 Implementation of objectives

1. Increase use of RFID technologies across Alabama.
 - a. Continue to facilitate use of RFID tags and readers in livestock markets
 - b. Facilitate use of RFID technologies with accredited veterinarians
 - c. Encourage producers to use RFID tags
2. Increase the use of electronic systems to collect and submit traceability data.
 - a. Encourage accredited veterinarians to use electronic ICVIs
 - b. Encourage auction markets to submit records electronically
3. Continue outreach and education to stakeholders through newsletters, informational brochures/pamphlets, ADAI website.
 - a. Livestock producers
 - b. Livestock markets
 - c. Accredited veterinarians
4. Maintain and monitor ADAI traceability databases
 - a. Monitor searchability of all ADAI databases