ADVANCING ANIMAL DISEASE TRACEABILITY
ROAD MAP FOR KANSAS

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KANSAS DIVISION OF ANIMAL HEALTH MISSION STATEMENT
To ensure the public health, safety and welfare of Kansas’ citizens through emergency management, prevention, control and eradication of infectious and contagious disease and conditions affecting the health of livestock and domestic animals in the state of Kansas; to regulate facilities that produce, sell, board, train, offer for adoption or harbor brand registration and inspection program to identify ownership of lost or stolen livestock, to inform the public of the status of the health of livestock in the state and to promote understanding and gain public assistance in achieving this mission.
EXECUTIVE SUMMARY

The Kansas Division of Animal Health (KDAH) is able to measure animal disease tracing capabilities within the state, more than just by the successfulness of an actual disease trace-out. Although not perfect, tracing abilities have greatly improved over the past 5 years.

The FY2016 Animal Disease Traceability (ADT) Work Plan continues to focus on cattle, as it is the predominant livestock industry within Kansas and the species most greatly in need of attention. In contrast, the Kansas swine industry is more advanced with respect to traceability capabilities. Kansas has growing poultry and cervid sectors, but the majority of these animals are raised on a small number of farms.

The following plan outlines the path KDAH will take over the next three years in advancing animal disease traceability in Kansas.

1) Key elements
   A fully-functional animal disease traceability system includes an electronic record system based on Certificates of Veterinary Inspection (CVIs) transmitted to the state of origin prior to livestock entering the state. Part of Kansas’s database program includes USAHerds, an in-house electronic filing system for CVIs implemented in FY2010. In the past five years, CVIs have been converted from paper-based to scanned PDFs sent to receiving states, and finally in true electronic format through multiple electronic CVIs.

2) Previous efforts to advance animal disease traceability
   The KDAH, with the help of the Kansas area USDA-APHIS-VS agency, has been successful in limiting the impact disease events have on the state, as referenced by Kansas's brucellosis and tuberculosis free statuses. The ADT program will continue to expedite tracing efforts by identifying animals that are suspect/exposed to disease, minimizing time and money involved in traceback, and lowering the impact on animal agriculture associated with the traceback and disease control process.

3) Ability to fit USDA’s framework for animal disease traceability
   This plan fits directly with USDA’s new traceability framework by addressing the key points in the published rule, including collecting CVIs and individual animal identification information.

4) Support of animal health information systems within Kansas
   CVIs sent to the KDAH will be entered into the current information system, USAHerds. Information requested on the CVIs via this plan (physical addresses of sender and receiver, species/breed/sex of animals shipped, date of movement, etc.) will populate the database, which will, in turn, continue to strengthen the traceability functionality of USAHerds.

5) Support of animal health information needs with other States and USDA nationally
   USAHerds in Kansas will be compatible with other state’s USAHerds computer systems. It will be accessible by Kansas animal health officials at any time electronically, while maintaining information confidentiality. This program will also
allow Kansas officials to quickly look up necessary information for trace back in states with different information systems.

6) Projected costs for FY2016, FY2017 and FY2018
Projected costs for the ADT plan in Kansas will remain steady in the next two to three years as imported livestock data continues to be sent to the KDAH office that needs to be data entered into USAHerds.

CURRENT TRACEABILITY SITUATION

1) Primary constituents
- Kansas Department of Agriculture Division of Animal Health
- Kansas area USDA-APHIS-VS

2) External constituents
Members of the Kansas ADT workgroup are consulted regarding outreach and education and direction of disease traceability in Kansas. These direct external constituents then have contact with their own constituents whom the ADT program impacts.

3) Internal traceability data usage
Traceability data collected in Kansas will remain secure and confidential in the USAHerds database, housed on KDA servers. The data may be used at the discretion of KDAH or Kansas USDA officials for traceability purposes. Confidential data will not be available or accessible to external users.

4) Animal disease traceability advisory group
The Kansas ADT workgroup members represent the multiple facets of the Kansas livestock industry. The workgroup met for a round-table discussion after the USDA final rule was released, and plans to re-convene to discuss intrastate regulation changes in Kansas in FY2016. The workgroup includes representatives from, but is not limited to:
- Kansas accredited veterinarians
- Kansas Cattlemen’s Association
- Kansas Farm Bureau
- Kansas Livestock Association
- Kansas Livestock Marketing Association
- Kansas Pork Association
- Kansas State University Animal Science department
- Kansas State University Research and Extension
- Kansas Veterinary Medical Association
- Livestock market operators
- United States Meat Export Federation
- USDA-APHIS-Veterinary Services, Assistant Director

5) Animal disease traceability definition
Animal disease traceability is the process of knowing where diseased or at-risk animals are, where they've been, and when. This process is essential in aiding a rapid response in an animal disease event, reducing the number of animals involved in an
investigation, minimizing the time needed to respond, and decreasing the cost to producers and the government. Animal disease traceability is a cross-cutting system in KDAH that correlates with Animal Health Planning, disease eradication programs and ongoing planning for the future National Bio and Agro-Defense Facility in Manhattan, Kansas.

6) Measures of traceability capability
The past Kansas disease traceability system was based on a 100-year-old paper system, wherein paper files were mailed to the State, categorized and filed. The measure of animal disease tracing capabilities was limited to the successfulness of an actual disease trace-out. As data is continually entered into the system, trace-back becomes more efficient. Traceability capabilities are determined by performing a trace-back using electronic data, and the ability to meet USDA’s performance standards and continually decrease the time involved in a trace-back will determine progress.

7) Coordination within KDAH
The Kansas Animal Disease Traceability Coordinator, Kendra Frasier, is the facilitator of the Kansas program. She is able to directly communicate with other members of the KDAH for program support.

8) Coordination state-wide
State-wide coordination is facilitated by the Kansas ADT Workgroup. This group consists of industry, university, and state and federal representatives who will help develop and disseminate a state-wide plan. The group will also discuss the proposed rule with their constituents to get feedback on specific aspects and get better direction of Kansas ADT.

9) Coordination with other existing agencies/units?
The KDAH has open communication with other state agencies and area USDA animal health officials. Meetings are held as needed to inform and educate these partners about ADT and what help may be needed.

10) Standards for traceability
The performance standards specified in USDA’s ADT guidance are the measurement of actual and test trace exercises.

11) Requests for information
Currently, requested information is available from authorized personnel during regular business hours.

12) Funding’s impact on capability
Federal funding supports data entry personnel’s salary, as well as funding outreach and education efforts to encourage and support producers and veterinarians to use available and emerging technologies (eCVI, mCVI, RFID) to improve traceability.

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS OF KDAH AND THE ADT PLAN
1) Strengths
• Capabilities and accessibility of KDA information technology personnel
• KDAH personnel’s in-depth knowledge of the Kansas livestock industry
• Availability of electronic, standardized CVIs, and an online permitting system
• Kansas’s in-depth emergency management plans
• The strength and involvement of the ADT workgroup
• The 130-year history of the Kansas Animal Health Department and its support by Kansas livestock producers and agribusiness

2) Weaknesses
• USAHerds’ quality and duplicity of data
• Ability to automatically or logistically capture individual identification contained on imported documentation
• CVIs – non-approved documents based on illegibility, missing/incorrect information, etc.
• Livestock markets – data collection is not electronic
• Communication opportunities to missed target audiences
• Outdated state movement regulations

3) Opportunities:
• Encouraging the use of RFID tagging and electronic documents
• Functionality is being created to automatically capture individual identification
• Obtaining more premises identifications; more physical addresses
• Producer and affiliate education about ADT
• Communication – outreach and education
• Incorporating electronic information gathering into livestock markets; increasing number of electronic CVIs sent to KDAH
• Export dollars for Kansas products
• Updating state movement regulations

4) Threats:
• Preconceived public perception threatens education and communication efforts
• Potential for disease spread from importing countries

SWOT ANALYSIS
1) Avoiding potential threats
   By focusing on education and transparent communication about the ADT plan, we are able to mitigate negative public perception.

2) Usage of available resources
   One of our best resources, personnel, will be better able to conduct trace-backs as electronic information about animal movement is more readily available. This will lower costs associated with traceback, including personnel hours and other necessary resources.

3) Enhancement of networking opportunities
   This plan enhances information networking opportunities as USAHerds is incorporated in other states, and a USAHerds user group has been formed to share ideas across user states. It also encourages networking with members of the Kansas ADT workgroup.

4) Threat of non-implementation
There is an extraordinary amount of animal movement through Kansas, as well as producers and industry partners involved. Public perception is influenced by those threatened by the false idea the government will use their information for other purposes than disease control and traceability.

INVENTORY OF EXISTING INFRASTRUCTURE AND SUITABILITY ASSESSMENT

1) Human resources
   • Kansas Animal Health Commissioner, Dr. William Brown
   • ADT Coordinator, Kendra Frasier
   • KDAH field veterinarians and office USAHerds team
   • USDA-APHIS-VS animal health technicians and veterinarian medical officers

2) Space availability
   KDA office space and meeting rooms

3) Connectivity resources, both in office and in the field
   IT infrastructure provided by KDA

4) Paper record organization
   Archived paper records are organized by year and maintained in climate-controlled storage facility for ten years, per the KDAH retention schedule.

5) Automated data capture capability
   Several forms of electronic data are uploaded directly into USAHerds: Global Vet Link, Ft. Supply and Vet Sentry proprietary CVIs; and the free versions – IIAD’s mCVI application and the States’ eCVI, a fillable PDF. Other resources for automatic data capture continue to be developed.

TRACEABILITY REQUIREMENTS

1) Strategic goals
   a) Maintain and improve a state-wide infrastructure for animal disease traceability compatible with USDA standards for interstate movement of livestock.
   b) Maintain and improve a state-wide infrastructure for animal disease traceability for intrastate movement of livestock in Kansas.

2) Programmatic goals
   a) KAHD Animal Disease Traceability Work Group advisory council
      i) Provide education and awareness of ADT at the grassroots producer level for all livestock species represented by the ADTWG members’ base organizations
      ii) Provide sufficient informational handouts, posters, brochures, talking points, etc. for members to distribute to their constituents, streamlining education efforts
      iii) Aid in the improvement of a workable ADT system that will facilitate the natural speed of commerce in the various livestock segments in Kansas.
   b) Continue to improve and expand KDAH’s Information Technologies capabilities
   c) Kansas Animal Disease Traceability Program Outreach and Education
i) Increase the number of Kansas animals officially identified with ELECTRONIC identification prior to leaving the location of origin
ii) Advertise, encourage and support electronic CVIs submission
d) Increase Location Identifier Numbers captured in USAHerds
e) Regularly update Kansas Animal Disease Traceability website content

3) Monitor CVI data quality
   a) Regularly communicate with data collectors and enterers to ensure data is uniformly collected and entered into USAHerds, maintaining data integrity
   b) Periodically randomly check for misinformation and duplicate information in USAHerds system

4) Input data into appropriate systems
   a) Continue to populate USAHerds with premises information and individual animal identification
   b) Explore paths to generate electronic data and expedite data gathering for USAHerds, including an electronic data collection system for livestock markets

5) Improve retrieval of available traceability information
   Periodically conduct test traces to test ability to meet performance standards

6) Meet data-sharing standards for sharing data with other states and USDA when needed

7) Enhance IT infrastructure
   a) Continue to explore enhancements of USAHerds
   b) Stay abreast of latest technology that may increase data collection possibilities
   c) Help develop data retrieval systems that will increase data collection possibilities
   d) Automatically capture individual animal identification
   e) Software for data collection in livestock markets

8) Maintain tag distribution record system in conjunction with USDA

ANIMAL DISEASE TRACEABILITY PERFORMANCE MEASURES
For FY2016, the KAHD will continue the process of measurably improving animal disease tracing capabilities across Kansas.

A computerized record system based on electronically-stored CVIs is necessary to expedite trace-out efficiency. Most states now require all CVIs be sent to them in electronic format - scanned PDFs of paper-based forms, at the very least - and in turn are sending CVIs of livestock exported to Kansas electronically to the KAHD.

To evaluate tracing capabilities, a reference animals are selected and a trace-out performed on that animal. Animals are eligible to be used as reference animals if they were moved intrastate on or after the date they are officially identified and only if they are identified with an official identification number. These eligibility criteria ensure only animals moved interstate under the traceability criteria could serve as reference animals.

To determine the effectiveness of these improved technologies as they relate to disease traceability, four performance standard measures are used, which are consistent with USDA-APHIS-VS’s performance standards for interstate animal movement:
• Time to report to the State/Tribe of official tagging/identifying of a reference animal that has moved interstate.
• Time for the State/Tribe of first officially tagging/identifying a reference animal that has moved interstate to provide a record of the official tag distribution.
• Time to report to the State/Tribe from which a reference animal has moved interstate.
• Time for the State/Tribe from which reference animal has moved interstate to provide the location and contact information from which the animal was moved interstate.

1) The **first performance standard** measures the time required for the State/Tribe of destination to notify the State/Tribe in which the reference animals were officially identified. Since this is already a relatively simple process, this should be accomplished 95 percent of the time within 1 business day.

2) The **second performance standard** measures the time required for the State/Tribe of tag origin to validate the application and/or issuance of the reference animal numbers for which they were notified (in performance standard 1). This can be accomplished using distribution records that contain contact information for the business or operation to which the numbers were issued. This process should be phased in to provide achievable standards in the short term and higher standards in the long term. Currently, records of tags applied are in paper-based systems, which take more time to research than electronic databases. When the performance standards are first evaluated, the activity should be accomplished 75 percent of the time within 5 business days. As official identification records become easier to search, the time required to find the origin of an identification device will decrease. At that time, the activity should be accomplished 95 percent of the time within 2 business days.

3) The **third performance standard** measures the time required for the State/Tribe of destination to notify the State/Tribe from which the reference animals were shipped. This standard should be phased in. Initially, the activity should be accomplished 95 percent of the time within 7 business days. As traceability systems mature, the activity should be accomplished 95 percent of the time within 3 business days. Increasing the use of electronic CVIs will make achieving this performance standard easier.

4) The **fourth performance standard** measures the time required for the State/Tribe of origin to validate the movement of the reference animals for which they were notified (in performance standard 3) from their State/Tribe to the State/Tribe of destination. This can be accomplished using required CVI information, which includes the location where the inspection by an accredited veterinarian takes place and the location to which the animals are moved interstate. A movement permit or other document may be used when the equivalent information reflecting the shipped from location and location of destination are able to be determined. This standard should progress over time. Initially, the activity should be accomplished 75 percent of the time within 5 business days. As the system matures, the activity should be accomplished 95 percent of the time within 2 business days.
RESOURCE REQUIREMENTS

1) There is a need for standardized and user-friendly computer systems in Kansas livestock markets that can capture traceability information, send this information to KDAH and directly to USAHerds, as well as provide a service for market veterinarians. This service may include automated population of electronic CVIs to lessen the burden on market vets to fill out and report this data. Expertise in creating such a system is needed, as this development is out of the scope of KDAH and KDA IT support.

2) Although a few systems exist, their limited support or scope of abilities has limited implementation in many Kansas markets. Another private company, Ft. Supply has been challenged to provide a solution to market veterinarians, and a pilot system was implemented in two Kansas livestock markets in FY2015.

3) The ability to capture individual animal identification in an efficient manner remains a challenge. The logistics of data entry on handwritten CVIs for more than one million animals imported into Kansas each year continue the need for additional resources.

ORGANIZATIONAL NEEDS

4) Additional resources that may be leveraged within the current KDA administrative structure may include grant-writing or other fundraising strategizing. Financial support may be acquired through grants to help fund a uniform technology system for Kansas livestock markets.

5) Other leveraging includes using the Kansas Department of Agriculture’s communication division to help advertise traceability progress and available technology (such as electronic CVIs and RFID ear tags) more thoroughly in the state.

POLICY

6) Existing KDAH statute 47-674 discusses the KDAH protocol for registering premises where animals are located, voluntary premises registration and animal identification and tracking system with development and implementation by the animal health commissioner. This statute has been reviewed and is aligned with current goals and objectives for the Kansas ADT plan. Changes to intrastate animal movement regulations are advancing through regulatory channels in FY2016.

OUTREACH AND EDUCATION

7) Accredited Veterinarians

a) Accredited veterinarians are instrumental to ADT framework focusing on interstate movement of livestock and poultry.

b) The primary outreach and education efforts for FY2016 will continue to focus on accredited veterinarians in Kansas, while still including livestock market operators and grass-roots livestock producer groups in conversations.

i) Advertise, encourage and support the submission of electronic CVI forms to the KAHD office
ii) Distribute and encourage the use of RFID and OCV-specific RFID tags to veterinarians

**c) Benefits expected**

i) Provide veterinarians with information that will assist in providing sound solutions to his/her clientele with respect to animal identification questions

ii) Decrease time and resources dedicated to data entry, as electronic information is automatically uploaded into USAHerds

iii) Increase the number of Kansas animals that are officially identified with electronic identification prior to leaving the location of origin. Past year’s efforts included registering nearly 100 each approved tagging sites and tag distribution locations. Future efforts will include distribution of RFID tags, including OCV-specific RFID tags.

iv) Open dialog channels pertaining to how the KAHD can better deliver a positive message pertaining to the ADT program, which will result in an increase in overall producer participation in the ADT program

8) Livestock market operators and livestock producers

   a) Efforts to work with Livestock market operators and livestock producers include:

      i) Speaking to individual salebarn operators or producer groups as available, educating on the new Kansas ADT program as developed by the ADTWG.

      ii) Handouts including posters for salebarns, postcards or brochures for take-home messages from producer meetings, etc.

      iii) Exhibiting and staffing a booth at various fairs, meeting and conventions, including at the Kansas State Fair, to educate animal exhibitors, and fair and meeting visitors about ADT in Kansas.

   b) Benefits expected:

      i) Better overall buy-in for the ADT program, because operators and producers will be educated on the benefits of the program

      ii) More efficient trace-back abilities due to producer participation with individual animal identification

**DATA REPORTING**

1) The following data will be reported for quarterly reports to USDA-APHIS-VS:

   • Number and type of regional meetings with number in attendance and audience type

   • Number of Kansas veterinarians receiving:

   • New (or assistance with existing) eCVI

   • CVI for iPad application (# approved by KDAH)

   • Examples of factsheets, brochures, other handouts and online materials developed/updated

   • Number of tradeshow booths exhibited

   • Number of non-compliant CVIs received at livestock exhibitions

   • Number/name of professional development meetings, workshops or forums attended
g) Number of premises locations identified in USAHerds  
h) Identification and Interstate Movement Activities  
i) Number or percent of backlogged paper forms  
j) Number of Approved Tag Distributor’s reported tags distributed  
k) Number of non-approved import CVIs returned to state of origin  
l) Completed traceability recording system  
  • Number of traces (test or actual) participated in  
  • Number of successful traces

TRACEABILITY IMPLEMENTATION

1) Ranking priorities for advancement
   The approach to the breadth of elements encompassed in advancing animal disease traceability in Kansas will be to “divide and conquer”. This ongoing ranking will identify and prioritize projects for funding over the next three years. It will be the basis of comparison for the annualized cooperative agreement work plans. If it is not listed here, more extensive justification will be provided within the annual work plan for approval.

2) Implementation of objectives
   Accepting that each year’s cooperative agreement work plan will likely be a collection of objectives, KDAH will continue to expand upon each of the objectives prioritized above and describe how each project will be conducted or approached. Objectives will continue to be prioritized for each of the planned three years, aligning with the three-year budget plan.