

Advancing Animal Disease Traceability Road Map for Pennsylvania – 2021-24

A Three-Year Plan

Submitted by:

Dr. Kevin Brightbill

Submitted to:

Dr. Michael A. Kornreich

March 2021

Purpose

The purpose of this document is to outline the comprehensive plan and goals of the Pennsylvania Department of Agriculture, Bureau of Animal Health and Diagnostic Services for Animal Disease Traceability (ADT) for 2021 through 2024. The Pennsylvania Department of Agriculture is responsible for the administration of this program, with regulatory assistance from the United States Department of Agriculture, Animal and Plant Health Inspection Services, Veterinary Services (USDA, APHIS, VS). This program is funded through the use of Cooperative Agreement Funds provided by the USDA, APHIS, VS. The primary contacts for this program are as follows:

Allie Steck

Animal Disease Traceability Coordinator
Pennsylvania Department of Agriculture, Bureau of Animal Health and Diagnostic Services
2301 North Cameron St
Harrisburg, Pennsylvania 17110
Phone: 717-836-3235
Email: asteck@pa.gov
[365](tel:717365365)

Dr. Kevin Brightbill

State Veterinarian and Director
Pennsylvania Department of Agriculture, Bureau of Animal Health and Diagnostic Services
2301 North Cameron St
Harrisburg, Pennsylvania 17110
Phone: 717-705-1626
Email: kebrightbi@pa.gov

Dr. Michael A. Kornreich

Assistant District Director, District 1
United States Department of Agriculture, Animal and Plant Health Inspection Services, Veterinary Services
2300 Vartan Way, Suite 250
Harrisburg, Pennsylvania 17112
Phone: 717-540-2763
Email: michael.a.kornreich@usda.gov

Additional Information can be found on the following websites as of 3/08/2021

<https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/traceability>

<https://www.agriculture.pa.gov/Animals/AHDServices/Pages/default.aspx>

Executive Summary

The Pennsylvania Department of Agriculture (PDA), Bureau of Animal Health and Diagnostic Services (BAHDS) Advancing Animal Disease Traceability Road Map addresses the Commonwealth's plan for the 2021 – 2024 period, geared toward improving animal disease traceability (ADT) systems for livestock within the state. The ADT road map will serve as a continuation and revision of The Advancing Animal Disease Traceability Road Map for the 2018 – 2021 period as ADT efforts continue to evolve and expand with technological advancements, broader acceptance and use of official RFID tags and ongoing transitions in Federal guidance.

ADT is a vital tool for both State and Federal animal health officials in their efforts to effectively track, identify, eradicate and control dangerous transmissible diseases. ADT is critical for the management and prevention of disease outbreaks. To continue forward progress towards an accurate, timely and effective system for ADT, the following elements need to be adopted:

- Increased rate of distribution and application of official, unique and accurately databased identification devices (including both radio frequency identification (RFID) devices and National Uniform Ear-tagging System (NUES) tags) to livestock populations statewide.
- Increased data capture of animal movement records.
- A comprehensive database of premises where livestock are maintained, with corresponding geographic coordinates (lat/long).
- The ability to rapidly search electronic databases for records of official identification devices, including where they have been distributed and/or applied and where they were documented/scanned from animal disease testing, disease program, or animal movement documents.
- Statewide accountability, for producers, official tagging sites, dealer/haulers and veterinarians who are receiving these tags, in order to maintain an accurate electronic database system.
- Addition of electronic systems (panel readers) in livestock auctions/markets and processing facilities in order to further track animal movement and gain the ability to retire unique identification numbers from tags that are no longer in use.

Traditional systems employing conventional labor-intensive recordkeeping practices have and continue to enable ADT and mitigation. However, the ever-changing climate of rapid and high-volume intrastate, interstate, and international livestock movements has pressured the dated systems, making it difficult to track disease movement at the speed of commerce. With larger animal production units, high-speed and long-distance travel, the potential risk of an animal-borne health crisis affecting animal health as well as public health continues to increase. Therefore, Pennsylvania must continue to adopt the most up-to-date technology at all levels of ADT in order to address potential disease risks at the speed of commerce in animal movement, production, and management systems.

Due to the large impact agriculture has within the state of Pennsylvania, it is vital that highly functional ADT capability exists in order to safeguard animal and public health, protect the economic viability of farms and ensure a safe and abundant food supply.

Background

BAHDS is responsible for the control and eradication of disease in livestock and poultry statewide. In the Bureau's mission to ensure and protect both animal and human health, we are closely aligned with the Pennsylvania Animal Health and Diagnostic Commission (AHDC), whose members range from practicing veterinarians and regulatory health officials to livestock producers. BAHDS activities, with the inclusion of ADT, are reported bimonthly during the AHDC commission meetings.

In order to effectively carry out its animal health mission, BAHDS oversees the Pennsylvania Animal Diagnostic Laboratory System (PADLS), which includes two university laboratories and a third veterinary laboratory facility in Harrisburg.

Pennsylvania livestock producers are the primary constituents of the Pennsylvania ADT Plan. Closely associated are the USDA accredited veterinarians who serve these constituents and protect and safeguard animal health through their activities in disease programs on-farm and in commerce.

External constituents include the two dairy herd improvement associations (DHIA), licensed livestock dealers and haulers, over 30 USDA-approved livestock markets and official approved tagging sites, all operating within Pennsylvania. Additionally, all out-of-state individuals entering the state for purposes of animal commerce, exhibition, and recreation are external constituents as well. In this road map, the term 'statewide' applies to all livestock and poultry premises, commerce, exhibitions and other venues within the borders of the Commonwealth of Pennsylvania.

In our commitment to the health and protection of Pennsylvania's livestock and poultry industries, BAHDS performs ADT outreach to all related organizations comprising the animal health stakeholder community. Some of these organizations include:

- ... The Pennsylvania Veterinary Medical Association
- ... PennAg Industries Association
- ... Lancaster Dairy Herd Improvement Association
- ... Dairy One, Inc.
- ... Pennsylvania Milk Producers Association
- ... Pennsylvania Livestock Association
- ... Pennsylvania Cattlemen's Association
- ... Pennsylvania Beef Council
- ... Pennsylvania Farm Bureau
- ... Pennsylvania Farmers' Union
- ... Pennsylvania Deer Farmers Association
- ... Livestock Marketing Association

Summary of Program Objectives and Accomplishments, 2018-2021

Animal Disease Traceability is defined as the ability to accurately and efficiently track livestock for disease control purposes, including the origination location of disease animals and identification of trace-back and trace-forward exposed animals. It is an integral component of a comprehensive and successful animal health information system. It includes the integration of data from multiple sources, including premises data, animal identification device information, movement documentation data and RFID panel reads from livestock markets. When this information is used in a coordinated manner, it creates a successful ADT system.

Through the course of the 2018 – 2021 road map, we began the wider use and distribution of both NUES and RFID tags. We also implemented greater official identification requirements for animal movement, sale, and exhibition. As technology continues to become more prevalent within agriculture, BAHDS has slowly begun to implement changes in order to meet the speed of commerce. Please see the efforts below regarding the 2018-2021 objectives to improve ADT in Pennsylvania.

Objectives & Accomplishments from 2018 - 2021

1. A high application rate of accurately databased animal identification devices, including both RFID tags and NUES tags to livestock populations statewide.

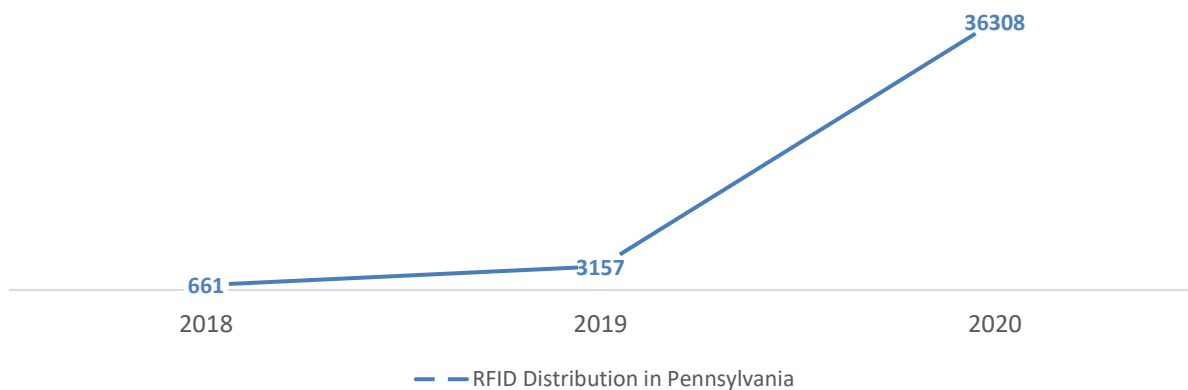
Throughout 2018 – 2019, NUES tags continued to be distributed as the main form of identification to Pennsylvania livestock producers, approved official tagging sites, accredited level II veterinarians and the two DHIA who disseminated tags across the state upon request. Livestock markets and dealers, who are identified as approved official tagging sites, receive tags directly from the PDA’s regional staff.

Beginning in 2020, a total of 200,653 free RFID tags became available for application and distribution to Pennsylvania producers, veterinarians and DHIA at no cost by USDA, APHIS, VS for use in replacement breeding cattle. BAHDS created an online order form for the use of these entities to order tags. Upon its completion in early September of 2020, distribution of these tags began. From September through December of 2020, approximately 32,300 RFID tags have been ordered using this form. Additionally, one of our two DHIA have joined in the transition to RFID using these tags. All parties ordering tags online must either have or apply for a premises identification number for their farm or veterinary practice.

The distribution and application of official identification devices by the aforementioned entities is reported to BAHDS where data is maintained in the USAHERDS database. Tag distribution and application agreements are in place to require that the submitter send in their tag application/distribution records. These agreements can be sent in electronically, which increases our speed of data entry. When tags are distributed, reminders are given regarding the responsibilities of mandatory recordkeeping that comes with the reception of these tags. Failure to report application/distribution of official identification that was provided results in the suspension or elimination of tag distribution in its entirety. This ensures the party receiving tags is held accountable for the tags they have distributed and/or applied.

Year	NUES Tags	RFID Tags	Metal Brucellosis Tags	RFID Brucellosis Tags	Total Tags
2018	74604	661	6965	1940	84170
2019	102195	3157	16380	4530	126292
2020	58424	36308	1525	1510	94345

RFID DISTRIBUTION IN PENNSYLVANIA



2. A comprehensive electronic database of premises where livestock is maintained, with corresponding geographic coordinates (lat/long) for each.

Premises identification numbers, both Federal Premises Identification Numbers (PIN) and State Location Identifiers (LID) and associating them with the assignment of official identification devices has enabled BAHDS to better link identification devices to their premises of origin, thus improving ADT. The principal premises identifier assigned in Pennsylvania is the Federal PIN. The cooperators continued to update and register new premises upon request.

In 2019, a new premises identification application launched on the BAHDS website for producers to apply online. Through continuous registration updates, a more accurate and up-to-date database will form. We continue to work with IT professionals in order to create an online portal allowing for producer updates regarding species types and counts within their premises. Premises identification numbers and counts are listed below.

Year	Premises Identification Numbers Assigned
2018	406
2019	502
2020	529

3. The ability to rapidly search electronic databases for records of official identification devices, including where they have been distributed and/or applied and where they were sighted from animal disease testing, disease-program, or animal movement documents.

BAHDS continues to maintain all records of official identification devices distributed and/or applied via tag distribution and application sheets that are provided to all entities (dealers, tagging sites and accredited level II veterinarians) receiving tags. The information from these sheets is then recorded in our USAHERDS database system. All panel reads from our four currently operating panel reader systems located at livestock markets are also saved within the USAHERDS database system.

The Recipient continues to work towards an entirely electronic system for storing animal health information. At this time, all records of the distribution & application of official identification devices are searchable and saved within our USAHERDS database system. Electronic records from disease programs (such as CWD & Johnne's), vaccination reports, annual program reports, official tagging site application reports, RFID panel reads, animal testing records and animal movement records from CVI (from AgView and Global Vet Link) are also stored within the USAHERDS database system. Paper CVI that are received are saved within our internal server electronically.

4. Adoption of RFID devices for animals currently receiving NUES tags, in accordance with the plan created by the ADT working group in 2017.

BAHDS began widespread distribution of RFID tags to producers in 2019 after free RFID tags were allocated to states from USDA, APHIS, VS. These tags are available through the use of our online form launched in September and, this year alone, RFID tag distribution increased tenfold. Additionally, one of our two DHIA has begun to use RFID tags in lieu of NUES tags for their producers. BAHDS will continue to provide information and encourage the conversion of all cattle producers to utilizing RFID technology.

BAHDS will continue to make the remaining NUES tags available to Pennsylvania livestock producers, official tagging sites, accredited level II veterinarians and the two DHIA who are in good standing with BAHDS. These tags will continue to be distributed for use by these entities until they are no longer available from the USDA.

BAHDS continues to require RFID for swine exhibition in Pennsylvania at all state-sponsored shows, livestock expositions and jackpot shows. Portable readers continue to be made available for fairs/shows/exhibitions to verify incoming cattle identification via CVI. This data is stored in these readers and can be imported into our USAHERDS database system if necessary.

5. Adoption of both electronic CVI and Coggins tests to better receive animal movement and disease information in real time.

BAHDS continues to work towards an entirely electronic database system for the storing of animal health information. Animal testing records and animal movement records from CVI (from AgView & Global Vet Link) are now stored within the USAHERDS database system. Paper CVI that are received are saved within our internal server electronically.

BAHDS continues to distribute information to accredited level II veterinarians regarding electronic CVI programs that are available. The Bureau's IT Team, AgraGuard, is working to create an online user portal for producers and other licensed entities to provide a more comprehensive electronic database for ADT including a robust and interactive platform to track disease at the speed of commerce and perform strategic outreach and education to producers in control zones whose animals are at risk.

6. Statewide accountability for producers, official tagging sites, dealer/haulers and veterinarians who are receiving these tags, to maintain an accurate electronic database system.

BAHDS continues to monitor tag use at official tagging sites and tag use of licensed dealer/haulers through regulatory records checks. The emphasis in 2018-21 was on official identification in dairy breed calves in livestock commerce. Solutions have been reached with livestock markets as well as dealer/haulers in assuring official identification of these animals.

Summary of Objectives & Supporting Activities for 2021-2024

The mission of BAHDS is to protect the health of our Commonwealth's domestic livestock populations through prevention and control of dangerous transmissible diseases and zoonotic agents and to further protect public health by ensuring a safe, wholesome, abundant and accessible food supply for Commonwealth citizens through the maintenance of a thriving livestock economy.

The USDA, APHIS, VS proposed plan for transition to RFID tags and electronic ADT systems will be a challenge for Pennsylvania moving forward without the aid of additional Federal funds

and/or mandates. However, the aid received through the allocation of free RFID tags has allowed Pennsylvania to make great strides in flooding the markets with RFID tags. In 2019 we have made several updates to our current systems, including online tag ordering forms and premises ID applications. We have also begun working cooperatively with in-house IT systems in the development of an online user portal, which will allow Pennsylvania producers, veterinarians and other stakeholders to make updates to their premises. This will allow us to have a more comprehensive and up-to-date database system.

Our ADT program in Pennsylvania must continue to remain responsive to the ever-changing technology and industry needs in order to maintain a proficient ADT Program. The below represent broad objectives towards the continued improvement of ADT in Pennsylvania over the next three years. These objectives and current supporting activities continue to grow and evolve and will be outlined in further detail in USDA, APHIS, VS annual cooperative workplans.

1 Outreach

1.1 Provide educational and technical support to the livestock industry

- 1.1.1 Veterinarians**
- 1.1.2 Livestock Markets & Dealer/Haulers**
- 1.1.3 Other industry stakeholders**
- 1.1.4 Tagging Sites**
- 1.1.5 Premises registration**

2 Technology

2.1 Database Systems

- 2.1.1 USAHerds**
- 2.1.2 Animal Identification Management System (AIMS)**
- 2.1.3 Emergency Management Response System (EMRS2)**
- 2.1.4 Arc Geographic Information Systems (Arc GIS)**

2.2 Panel Readers

2.3 Electronic Certificates of Veterinary Inspections (ECVI) for Veterinarians

3 Promotion of Electronic Identification (EID) to Stakeholders

- 3.1 Provide RFID Tags to Stakeholders**
- 3.2 Provide NUES tags to Stakeholders**
- 3.3 Dairy Herd Improvement Associations (DHIA)**

4 Enforcement

4.1 Implementation of Quarantine Orders

- 4.1.1 Scrapie**
- 4.1.2 African Swine Fever**

4.2 Compliance with traceability requirements

- 4.2.1 Dealer/Haulers**
- 4.2.2 Tagging Sites**

4.3 CVIs

Objectives & Supporting Activities

1. Outreach

1.1 Provide educational and technical support to the livestock industry

Educational efforts to inform livestock stakeholders on procedures for assignment, application, compliant use, and documentation will continue. Discussion with dealer/haulers, livestock markets and other entities continue to increase ADT compliance statewide. Most of this activity is occurring as field staff encounter noncompliant members of these groups at livestock markets, shows, fairs and other events. The ADT Coordinator remains in contact with current official approved tagging sites to ensure appropriate tagging procedures are taking place. Field staff continue to provide information to producers, veterinarians, and livestock markets as time permits and upon request. Informational postings and updates continue to be made to the PDA website as needed to aid in the distribution of information and remain a resource for the public.

BAHDS 24 field staff members spend time working on all aspects of ADT including education, outreach, compliance checks and disease investigation.

Outreach presentations have been offered by the ADT Coordinator and the State Veterinarian at such venues as the PA Beef Council, PA Cattlemen's Association, purebred dairy cattle association meetings, livestock markets, the Pennsylvania Veterinary Medical Association and at seminars conducted at the Keystone International Livestock Exposition.

1.1.1 Veterinarians

PDA, BAHDS performs outreach to accredited veterinarians. Communications to accredited veterinarians through an email system provides an opportunity for animal health updates, deadline notifications, etc. The ADT Coordinator continues to use this as the main form of communication with accredited veterinarians. Veterinarians are reminded of the responsibilities involved with receiving tags from BAHDS and reporting their tag usage. PDA, BAHDS cooperates with USDA, APHIS, VS to deliver accreditation training to veterinarians, part of which includes ADT. Pennsylvania maintains current and accurate files of accredited veterinarians in addition to maintaining this information in the USAHERDS database.

1.1.2 Livestock Markets & Dealer/Haulers

Dealer/haulers continue to be reminded of their responsibilities for reporting tag usage and how not doing so could negatively impact their receiving USDA-issued

NUES tags from the PDA. They will continue to be monitored and undergo regular record checks. Penalties will continue to occur as necessary.

BAHDS maintains a list of licensed livestock markets within Pennsylvania and frequently inspects these entities. BAHDS will continue to monitor tag usage at official tagging sites and by licensed dealer/haulers through regulatory records inspections.

BAHDS will continue to work cooperatively on enforcement and education with USDA, APHIS, VS staff.

1.1.3 Other industry stakeholders

ADT updates and program information are presented and discussed at Animal Health and Diagnostic Commission (AHDC) meetings as well as to various AHDC committee meetings held throughout the year. BAHDS continues to make presentations to cervid stakeholders. These presentations are intended to familiarize the industry with certification program standards, the spread of Chronic Wasting Disease (CWD) and new requirements, and include ADT information regarding compliant use of official identification devices. Continuing this type of outreach regarding ADT is vital to improve ADT moving forward.

1.1.4 Tagging Sites

Tagging sites will continue to have regular record checks completed by field staff. Penalties will occur for non-compliance.

In 2021, the tagging site agreement has been updated and will be signed again by all sites currently in operation. The new tagging site agreement includes all parties involved in the tagging of animals, recognizing that some livestock markets utilize tagging services as agents to officially identify animals on their behalf.

1.1.5 Premises registration

BAHDS has successfully attained a high level of Premises/Location identification through the assignment of a combination of Federal PIN and State LID to a large proportion of livestock premises throughout the Commonwealth. Additionally, beginning in 2016 BAHDS began to gather further information about premises, including the species, and number per species, located on each premises. These premises should continue to be updated as the opportunity arises. This information is vital in order to successfully handle potential disease outbreaks.

2. Technology (*Electronic Animal Movement Data & Development of Internal ADT Data Management Systems (USAHerds, etc.)*)

2.1 Database Systems

2.1.1 USAHerds

BAHDS uses the USAHERDS & USALIMS database systems to support ADT within the commonwealth. These two SQL-based database systems are used to record and maintain both animal disease program and identification information. USAHERDS is the database most frequently used by the recipient for ADT program needs. This database is used to maintain all PIN, tag application/distribution records and animal movement documents. USAHERDS receives automatic uploads from the electronic CVI service, AgView, as well as weekly uploads from Global VetLink (GVL). Import and export CVI are also downloaded and saved from the USDA-run VSPS system. USAHERDS is used by the recipient to document the receipt of all official identification from USDA, APHIS, VS and to document its distribution through the main or regional offices to accredited veterinarians, approved tagging sites, producers and our DHIA.

USAHERDS also has disease program reports, official tagging site reports, RFID panel reads from livestock markets and animal testing records.

All data within this database falls under the control of BAHDS and is subject to the Pennsylvania Right to Know Law. Requests for data outside normal working hours are addressed the following business day except for any requests associated with an emergency animal disease event where staff would be made available for weekend/after-hours work.

BAHDS continues to make substantial investment in infrastructure improvements of USAHERDS/USALIMS databases systems through development and implementation of a user portal for enhanced customer service and robust ADT. This enhanced system will provide an interactive platform to track disease at the speed of commerce and perform strategic outreach and education to producers in a control zone whose animals are at risk. USAHERDS/USALIMS will continue to securely maintain premises data, animal identification device distribution data, and searchable files in addition to the myriad of animal health functions it already performs.

2.1.2 Animal Identification Management System (AIMS)

BAHDS also uses AIMS to locate tags distributed through other entities such as tag production companies. BAHDS will continue to use AIMS to aid in ADT and issued Trace Performance Measures (TPM).

2.1.3 Emergency Management Response System (EMRS2)

BAHDS will continue to provide tracebacks in compliance with Federal ADT rules in accordance with the established guidelines in the 'Traceability Performance

Measures Guidelines' document provided by USDA, APHIS, VS. These traces are defined below.

- 1. Determines the state in which the animal was officially identified and notifies that state of the reference animal's identification number.
This task is performed by the state that received the animal.
The performance parameter measured is the time required for determination of the state where the animal was identified by the recipient and for notification of the state where the animal was officially identified.*
- 2. State where animal was officially identified determines that it has documentation that an official identification number was issued within its jurisdiction and it has contact information for the person who received that number. This task is performed by the state where the reference animal was identified. The performance parameter measured is the time it takes to determine the location within the state where the animal was officially identified. If identification was applied at a market, the location from where the animal was delivered to the market must be determined.*
- 3. Determines the state from which the animal was moved interstate into its jurisdiction and notifies that state of the reference animal's identification number. This task is performed by the state that received the reference animal. The performance parameter is the time it takes to determine the state from which an imported animal was moved from and contact that state.*
- 4. Determines address or location from which the animal was shipped.
This task is performed by the state that receives notification that a reference animal was moved interstate from its jurisdiction. The performance parameter is the time it takes to determine the location in the state from where the animal was shipped when it moved interstate. If movement was from a market, determine the production unit of the animal before moving to the market.*

Each of these traces will be completed in a timely manner as they would in an emergency traceback scenario. Time, resources and type of document will continue to be documented. The ADT coordinator will perform all tracebacks as issued by the USDA, APHIS, VS ADT Program staff. The ADT coordinator will also complete all traces that occur in real-time animal health emergencies.

Additionally, BAHDS will continue to cooperate with USDA, APHIS, VS for seamless transfer of animal disease data from USAHERDS to Federal databases.

2.1.4 ArcGIS

BAHDS will continue to use the ArcGIS mapping software for outbreak scenarios and surveillance when necessary. The ability to create these 'maps' has greatly

reduced response time for potential outbreaks by ensuring visual tools are routinely available in a timely manner for disease response and mitigation.

2.2 Panel Readers

As the transition from NUES tags continues to progress, technology is needed in the livestock markets to ensure ADT. It is critical for Pennsylvania to add technology like RFID panel readers to high-volume livestock markets in Pennsylvania. RFID panel readers will allow the tracking of animal movement in real time through the scanning of livestock with applied RFID tags. Currently the Code of Federal Regulations (CFR) does not require livestock markets to maintain records of animals passing through. However, with the addition of up-to-date panel readers, BAHDS will be able to track livestock movement in real time, adding a valuable ADT tool to our state. Pennsylvania plans to add nine new panel readers in the 2020-21 fiscal year and an additional nine readers over the course of the next year in high-volume livestock markets statewide.

RFID capture technology will not only benefit ADT but, equally importantly, strengthen US cattle producers' competitiveness in the global marketplace for many years to come.

2.3 Electronic Certificates of Veterinary Inspections (eCVI) for Veterinarians

BAHDS has and will continue to promote the use of electronic CVI to accredited level II veterinarians. Several electronic options are available for these entities, including AgView (formerly mCVI), Global Vetlink (GVL) and VSPS. As of December 2020, 142 category II veterinarians have signed up for AgView accounts, and 123 category II veterinarians have signed up for GVL accounts. BAHDS will continue to promote these applications.

Additionally, BAHDS now has the ability through our USAHERDS system to view all submitted eCVI. USAHERDS now has functioning autointegration capabilities that allow submitted CVI from AgView and GVL to be viewed in our database system and searchable.

3. Promotion of Electronic Identification (EID) to Stakeholders,

BAHDS will continue to work towards the expansion of tag distribution and application, with a focus on on-farm tagging of animals at their birth premises. This will be completed through the use and distribution of USDA-provided NUES tags and the purchase of RFID tags through cooperative agreement funding. Moving forward, our intention is to continue to expand distribution of all forms of accurately traceable official animal identification as appropriate in all livestock program species.

BAHDS has been, and will continue to distribute official identification (NUES & RFID tags) to the following stakeholders per its established distribution plan:

- 1. Approved markets that have entered into an official tagging site agreement.*

2. *Other licensed livestock dealer/haulers who have entered into tagging agreements and meet BAHDS recordkeeping requirements including reporting tag use of all previous tag receipts prior to additional tag assignments.*
3. *Accredited veterinarians for use in disease program activity and for further distribution to producers. Tags assigned to producers are exclusively for use in animals originating from their premises and traceable to their premises. Accredited veterinarians also have an ongoing tag application and distribution reporting requirement. BAHDS Regional Offices may also distribute tags directly to producers as described for accredited veterinarians.*
4. *Dairy One, Inc. and Lancaster Dairy Herd Improvement Association - in accordance with terms described in "Agreement on Standard Operating Procedures Regarding NUES Ear Tags Among Dairy Herd Improvement Association, Pennsylvania Department of Agriculture, and The United States Department of Agriculture, Animal and Plant Health Inspection Services, Veterinary Services, Pennsylvania Area".*

BAHDS will continue outreach efforts to increase the proportion of official identification applied at the farm of origin. We will continue to work with all entities distributing NUES tags and RFID tags and inform them of the proper use of tags assigned to producers.

3.1 Provide RFID Tags to Stakeholders

BAHDS will continue to make RFID tags available to stakeholders following distribution guidelines. Currently through USDA's allocation, PDA has roughly 200,000 of these tags available at no cost to order. Accredited level II veterinarians, livestock producers, official tagging sites and our two DHIA in good standing with BAHDS are eligible to receive these tags. Letters were sent out to accredited veterinarians and stakeholders regarding the availability of these tags. Outreach through news/magazine articles and other programs also occurred. Tag orders are available for completion using our online form or via phone. BAHDS will continue outreach in order to flood the market with these tags.

BAHDS will continue to provide orange "OCV" RFID tags to accredited level II veterinarians for officially brucellosis-vaccinated calves. This initiative continues to be well received and the demand for these tags continues to increase.

3.2. Provide NUES Tags to Stakeholders

The Bureau will continue to provide NUES tags to stakeholders following distribution guidelines if they remain available by the USDA. These tags are currently used most frequently for application to dairy bull calves at auction. Plans are being developed for a solution for tagging these animals once NUES tags are no longer available.

3.3. Dairy Herd Improvement Associations (DHIA)

BAHDS intends to continue communication with our two DHIA within the state. These associations are a great resource for tag distribution and, by ensuring compliance with ADT rules and tagging animals on their birth premises, they remain vital to our mission to improve traceability within the state.

4. Enforcement

4.1 Implementation of Quarantine Orders

Pennsylvania continues to use regulations regarding animal identification and recordkeeping consistent with ADT requirements in order to ensure animal health. Periodic review of state regulations and business processes helps to preserve animal health as well as reliable ADT information.

4.1.1 Scrapie

The *General Quarantine Order; Scrapie* and the *Interstate/International Quarantine Order for Scrapie* were published on September 19, 2020. These orders require all sheep and goats born in Pennsylvania to be identified with a PDA-approved form of official individual identification prior to being transported live off the birth premises. No sheep or goat, of any age, shall be imported or shipped into the Commonwealth of Pennsylvania without a Department-approved form of individual identification and per the Final Rule of the National Scrapie Eradication Program must be accompanied in transit with either a valid Interstate CVI or owner-shipper statement if the animals are moving in slaughter channels.

BAHDS worked tirelessly throughout the fall through print media, virtual webinars and outreach and education at livestock markets to get producers up to speed on requirements. The effective date for the Order was January 1st, 2021, offering small ruminant producers an additional three months to come into compliance by establishing Scrapie Flock IDs and acquiring tags.

4.1.2 African Swine Fever (ASF)

The *Interstate and International Quarantine order; Swine Exhibition Requirements 50 Pa.B.550* was set forth January 25, 2020. The order establishes criteria to allow for continued exhibitions of swine by providing a more stringent official ID requirement (RFID), a shorter window for CVI prior to show, enhanced cleaning and disinfection between groups, enhanced scrutiny upon entrance, daily health monitoring by trained individuals during exhibitions, the requirement of the show or event to obtain a veterinarian of record who is responsible to report suspicious disease to a state animal health official, and establishment of a slaughter-only sale preventing previously commingled swine from returning to breeding populations. The order will continue in 2021 as it did in 2020, as it not only decreases the likelihood of a high-consequence disease (ASF, FMD or CSF) making it back to the farm if it is introduced accidentally or nefariously at exhibition, but also enhances surveillance of other diseases of importance.

4.2 Compliance with traceability requirements

4.2.1 Dealer/Haulers

BAHDS is examining enhanced means of monitoring compliance of licensed livestock dealer/haulers through potential promulgation of regulations targeted

at expanded recordkeeping and animal identification requirements in the interest of ADT.

4.2.2 Tagging Sites

BAHDS will continue to monitor tag use at official tagging sites and tag use of licensed dealer/haulers through regulatory records checks. The emphasis will remain on official identification applied to dairy breed calves in livestock commerce.

4.3 CVIs

BAHDS continues to monitor CVIs to determine error rates and compliance issues, particularly with improper use of or lack of official identification on movement documents.

We continue to report the following data with quarterly reports:

- Number of export CVIs created.
- Number of import CVIs received.
- Number of imported bovines by class officially identified.
- Number of exported bovines by class officially identified.
- Volume of official identification distributed.

Conclusion

Moving forward Pennsylvania's goals continue to align with that of the USDA;

- ... Educating stakeholders.
- ... Identifying animals using official RFID tags.
- ... Collecting animal movement information.
- ... Increasing the number of records in searchable data systems.
- ... Monitoring compliance.

Pennsylvania will continue to perform the efforts outlined above and make improvements over the next three years to advance Animal Disease Traceability, specifically through the addition of panel readers, new technology and RFID tags. It is vital for Pennsylvania to continue to educate livestock stakeholders on ADT's role and the advantages and importance of official identification in order to preserve and improve ADT statewide moving forward.