# ADVANCING ADT ROAD MAP FOR INDIANA

## A Three-Year Plan

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## I.     EXECUTIVE SUMMARY

The Indiana State Board of Animal Health (BOAH) is implementing several strategies to improve animal disease traceability in Indiana.

- Premises Registration: Since 2005 Indiana law has required any person that buys, sells or exhibits cattle, swine, sheep, goats and captive cervids to register their livestock premise(s) with BOAH.
- Traceability Rules: In 2014, BOAH rewrote the Indiana state animal disease traceability rules to align them with the USDA APHIS final rule on traceability, clarify requirements for moving animals within the state, and enhance record keeping by livestock producers. BOAH will review and amend rules as needed to advance traceability goals.
- Collaboration: BOAH has and will continue to collaborate with livestock and poultry farmers, livestock markets, veterinarians and other interested groups to implement reasonable and effective changes in the types of livestock identification and traceability documentation utilized.
- Technology: BOAH has emphasized the use of improved technology and techniques within common production and marketing practices. Substantial progress has been made in the use of electronic identification and electronic traceability documentation. Continued emphasis and development of electronic identification devices, electronic documentation options and collecting, moving and accessing data electronically are high priority objectives for the traceability program.

Sustained incremental changes are producing real improvements in the capacity for timely animal disease traceability in Indiana. BOAH is committed to continue to lead these ongoing efforts on behalf of the citizens of Indiana.

## II.     CURRENT TRACEABILITY SITUATION

### 2.1     Who are we?

The Indiana State Board of Animal Health is charged with preventing, controlling and eradicating diseases and pests of animals that present an economic or public health hazard to the citizens of the state.

The board consists of 11 members appointed by the Governor. Seven of those members represent the following livestock and poultry industries: equine, companion animals, cattle, dairy, swine, goats and sheep, and poultry. Additionally, four members are appointed to represent: general veterinary medicine (2), livestock markets, and the Purdue College of Veterinary Medicine.

**2.2** **Where are we now?**

Premises Registration

Since 2006, Indiana BOAH has required registration of premises associated with buying, selling or exhibiting cattle, pigs, sheep, goats and cervids. BOAH believes the compliance rate to be very good. Premises registration provides an excellent base for animal disease traceability.

Other livestock species and poultry may register premises in the Indiana program. The commercial poultry industry participates in the premises registration program with all Indiana National Poultry Improvement Plan (NPIP) participants' premises registered.

BOAH also includes in the database other locations that are important to the animal disease control mission, for example: livestock markets, aquaculture facilities, laboratories, slaughter plants and egg processors. There are also more than 3000 premises in the system for out of state locations that interface often with BOAH. As of December 31, 2021, there were 69,300 active premises in Indiana's USAHERDS animal health database.

Certificates of Veterinary Inspection (CVI)

In June 2013, the Board of Animal Health began distributing a new electronic Certificate of Veterinary Inspection for use by Indiana veterinarians preparing certificates of veterinary inspection (CVI) for Indiana animals. The eCVI was developed collaboratively by the Colorado and Kansas Departments of Agriculture and was customized for use in Indiana. A data bridge that facilitates electronic movement of the CVI data into BOAH's animal health database (USAHERDS) has been developed and implemented.

In 2014, BOAH began offering an iPad application for creation of certificates of veterinary inspection, the iCVI. The iCVI has gone through a couple changes in the past few years and has been upgraded to the AgMove CVI. The application is both for mobile phones as well as a web-based application that can be used with a computer with internet access. The information loads into the HERDS database automatically. The AgMove CVI will be retired from use in April 2022.

Indiana has promoted the use of electronic certificates of veterinary inspection by accredited veterinarians for years. BOAH has approved the use of several eCVI forms, including forms submitted by private vendors such as GlobalVetink and VetSentry and the USDA VSPS system form. The number of animal health certificates being created, submitted and routed electronically in Indiana continues to increase.

BOAH will continue to work with companies and other states to implement new versions of electronic documentation. BOAH is currently working with 17 other states to implement a new electronic certificate of veterinary inspection option, the VET-CVI. BOAH expects this option to be available for use in Indiana in 2022.

Since introduction of the Indiana eCVI, BOAH Animal Programs staff have trained a high percentage of Indiana veterinarians on use of electronic certificates of veterinary inspection tools. BOAH meets with interested veterinary clinics directly to implement electronic certificate of veterinary inspection technology. BOAH provides training for veterinarians and their staff in their clinic which helps transition practitioners to using these electronic forms. This training is ongoing upon request.

Indiana uses USAHERDS to manage animal disease traceability information. The USAHERDS system provides BOAH the platform and power necessary to synthesize animal disease traceability information. Animal disease traceability information recorded in USAHERDS provides the launching point for planning, preparedness, response, and recovery to animal disease related incidences. BOAH utilizes the system for recording information, documenting compliance with program standards and reporting results. BOAH continues to discover new and improved methods for utilizing the USAHERDS system. BOAH actively participates in a multi-state USAHERDS user group that coordinates improvements to USAHERDS through an ongoing collaborative process.

Permits
Early in 2014, BOAH launched two new electronic methods for customers to use when applying for livestock movement permits. The new methods were intended to make the permitting process more convenient for constituents, to improve the quality of the information submitted and facilitate efficiency managing information upon receipt. A priority was minimizing use of an answering machine and phone calls. Customers immediately began using the electronic methods and these methods quickly became the predominate method for obtaining movement permits.

In 2021, BOAH adopted a rule that eliminated the requirement for a pre-entry permit for swine and cattle if the person moving the animals into the state utilized an electronic certificate of veterinary inspection for the movement. BOAH expects the number of permits issued to decline because the use of electronic certificates of veterinary inspections will likely continue to increase in the future.

Electronic Identification
Indiana BOAH encourages livestock producers to transition to 840 tags for identification of their animals. In October 2008, the Indiana State Board of

Animal Health launched the 840 RFID Tag Pilot Program for cattle. At that time, BOAH was interested in promoting advancements in animal identification technologies and improvements in traceability, using radio frequency identification (RFID). From 2008-2010, with state and federal cooperative agreement funding, BOAH purchased 840 RFID tags, wand readers and handheld PDAs. Beginning in 2008, BOAH provided these tags to cattle producers free of charge for the purpose of introducing the technology. On October 2010, BOAH celebrated the two-year anniversary of the 840 RFID Pilot Program with 110,000 tags having been allocated during the pilot period. During this time, BOAH worked with veterinarians and exhibition managers to promote the use of the tags on farms and at fairs and exhibitions. BOAH no longer provides these tags, but many producers have chosen to continue using them. Most large dairies in Indiana have transitioned to using 840 ID. Many other cattle operations have adopted 840 ID (e.g., heifer growers, beef producers, etc.).

In 2010, BOAH teamed with Indiana 4-H and the Indiana Beef Cattle Association to facilitate use of 840 RFID tags in exhibition cattle. As a result of this partnership, since 2010, 4-H cattle exhibitions and the Hoosier Beef Congress (the nation's largest youth cattle show) have had an ongoing requirement for the use of 840 RFID tags at their events. The success of 840 tags in 4-H cattle and the Beef Congress led BOAH to seek opportunities for their use in other species. BOAH cooperated with Indiana 4-H and the Indiana State Fair (ISF) to use this technology in swine at the 2012 Indiana State Fair swine show. BOAH provided 2000 tags and support staff to tag swine for the 2012 ISF. The State Fair swine show has used 840 RFID tags for the show each year since. Other exhibitions have transitioned to this form of official identification for their shows.

In 2013, the BOAH staff worked closely with the Purdue University Extension and county and state fair management on the distribution and use of 840 RFID tags for swine exhibitions, such as 4-H fairs. Managers of 80 of Indiana's 92 county fairs required 840 RFID tags for identification of swine. The Indiana State Fair required 840 RFID tags for all cattle and swine exhibits. Those 80 fairs meant 10,475 (840 RFID) tags were distributed to swine exhibitors. A grant from the Indiana State Department of Agriculture covered the cost of the swine tags for the 4-H exhibitors. 840 RFID tags are now the standard for 4-H shows in the state. BOAH continues to work with county and state fair management on animal identification opportunities.

BOAH has facilitated official identification of commercial swine by working with swine veterinarians and swine farmers to implement the use of official identification ear tags and widespread use of electronic certificates of veterinary inspection. BOAH has fostered the use of

commuter herd agreements by working with farmers, veterinarians and trading states.

Beginning in 2014, BOAH has worked directly with key livestock markets to introduce electronic recording of electronic identification in the markets by using wands, PDAs, and panel readers. BOAH staff consulted with markets, ensured each market had the equipment necessary to implement the technology and provided staff to assist in making the technology and the process work in each market. BOAH continues to work with markets to implement electronic identification, reading and record keeping in markets.

BOAH strongly encourages livestock producers to transition to 840 tags for identification of their animals. In 2019, BOAH implemented a temporary "turn-in trade-up" program that allowed producers to trade in some of their old technology animal tags in exchange for electronic 840 tags.

The number of electronic 840 tags distributed to Indiana producers continues to increase each year. BOAH will continue to support use of electronic official identification.

Traceability Rules
In 2013, BOAH began the process to review and revise all the state animal health rules that relate to the movement of animals and traceability. BOAH completed the rulemaking process in 2014 and began implementing traceability rule education programs. BOAH will continue to modify agency rules as needed to maintain consistency with national standards and advance animal disease traceability.

Collaboration
BOAH has engaged in a long-term collaboration with livestock and poultry producers, veterinarians, livestock markets and transporters to implement the traceability system. BOAH works with state animal health officials in states with high trading volume with Indiana to develop state-to-state agreements that facilitate animal disease traceability and trade between the states. BOAH works with USDA APHIS VS to monitor traceability performance and coordinate ADT compliance activities.

2.3    **Strengths and Weaknesses**

Strengths
- Organizational commitment
- USAHERDS database
- Progress in the marketplace use of electronic identification and documentation.

Weaknesses
- Room for improvement in communicating traceability information from industry to the State of Indiana – timeliness and in a format that is easily manipulated.
- Continued use of paper traceability documentation in some sectors.
- Use of non-electronic means of official identification in some sectors.

## 2.4 Opportunities and Threats

Opportunities
- Improvements in information technology products – programming, security, hardware and communications.
- Increased acceptance of technological solutions in veterinary clinics and markets.

Threats
- Availability of electronic ear tags (supply chain issues).
- Cost of information technology.
- Maintaining computer programs needed for traceability as information technology architecture and standards evolve.
- Information technology security – hackers, phishing, viruses.

## 2.5 Inventory of existing infrastructure and suitability assessment

Existing infrastructure includes:
- Certificates of Veterinary Inspection (CVI)
  - Paper CVIs
  - Electronic CVIs – all eCVI's that have been found consistent with the national standards by the National Assembly of State Animal Health Officials.
- State of Indiana electronic permitting system.
- USAHERDS database system.
- API interfaces with diagnostic laboratories.
- Electronic ear tag reading devices (wand readers) and software.
- Laptops, printers/scanners and cell phones to capture, manipulate and communicate traceability information.

# III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

## 3.1 Vision and Mission Statement

The Indiana State Board of Animal Health is charged with:
(1) the prevention, detection, control, and eradication of diseases and pests affecting the health of animals within and in transit through

Indiana; and
 (2) the production, manufacture, processing, and distribution of products derived from animals; to control health hazards that may threaten the public health and welfare of the citizens of Indiana. IC 15-17-3-11.

## IV.    TRACEABILITY REQUIREMENTS

In 2019, BOAH created an agency traceability working group to evaluate traceability implementation, research and propose changes to improve implementation and work with all parties to ensure implementation of improvements to the traceability system. This working group continues to work towards advancing traceability in the state.

**4.1    Strategic goal(s)**

Exceed federal requirements for traceability and implement an animal disease traceability system that is effective for Indiana.

**4.2    Programmatic goals (objectives)**

Expand the use of official identification in markets, veterinary practices and on the farm. Emphasis the use of 840 RFID identification to facilitate electronic documentation and record keeping.

Expand the use of electronic documentation for animal movements and collection and transfer of identification and movement data electronically to facilitate rapid traces of animals for disease control purposes.

Ranking of priorities for advancement:
1.      Continued improvement in use of electronic official identification devices and electronic traceability documentation.
2.      Continued advancement of electronic data collection, storage, transfer and retrieval.

**4.3    ADT Trace Performance Measures (TPMs)**

BOAH will accomplish the objectives in this Roadmap by collaborating with farmers, livestock markets, veterinarians, tag suppliers, Cooperative Extension Service, USDA APHIS VS and other interested parties to implement Indiana's traceability plan. BOAH's traceability efforts have been received positively. With some additional work to make improvements, BOAH is confident that additional improvements to animal disease traceability will occur in a timely and efficient manner.

BOAH is committed to using performance measures for evaluating the traceability program.  Every time an officially identified animal is traced, BOAH staff members review the time it takes to accomplish relevant tasks. BOAH reviews any issues associated with meeting standards and takes

steps to correct any shortcomings. Each trace, whether an actual trace or an exercise, is recorded on the appropriate forms and reported to the appropriate offices. The traces are summarized and reported quarterly. The Indiana State Board of Animal Health intends to participate in development of national traceability standards in the future.

### 4.4 Data requirements

BOAH collects traceability data. The data is stored in the agency database, USAHERDS. BOAH retrieves traceability data from USAHERDS. BOAH will continue to work on methods that will streamline data collection, data entry into USAHERDS and reporting.

### 4.5 Information technology plan

BOAH uses USAHERDS to store and retrieve data. BOAH utilizes the AIN manager program for traceability. Both systems are available 24/7 for IN traceability users. BOAH utilizes personal computers and other data collection devices (smart phones, tablets and wand readers) to collect data in the field and transmit the data for entry into USAHERDS.

### 4.6 Resource requirements

USAHERDS user states need to continue to update and improve the interface between USAHERDS and other systems, such as the NVSL/NAHLN database system and other laboratory systems for laboratory results.

Indiana will continue to work on improved methods to communicate information to other states.

BOAH will continue to work with livestock markets to implement electronic identification and data capture technology to improve animal identification and documentation.

BOAH will continue to research and implement changes necessary to automate data entry and other record keeping functions.

### 4.7 Organizational needs

#### 4.7.1 Executive support

Indiana's executive leadership and legislature support animal disease traceability.

#### 4.7.2 Coordination and oversight procedures

The Indiana State Board of Animal Health is the coordinating and oversight body for animal disease traceability in Indiana. The Indiana State Veterinarian leads traceability programs for the Board of Animal Health. The Animal Programs Department Director is primarily responsible for managing traceability programs.

#### 4.7.3 Policy

Indiana's animal health statute and rules are sufficient to accomplish traceability requirements. BOAH completed revisions to state rules relating to traceability in 2014. BOAH will evaluate if the rules should be amended based on the implementation experience.

### 4.7.4 Staffing

BOAH's staffing resources are dictated by the state general fund budget allocation. Indiana's personnel policy is dictated by a state personnel statute.

### 4.7.5 Budget requirements

BOAH receives one line item from the state legislature for animal health which includes all funding for animal disease traceability. BOAH utilizes USDA cooperative agreement funds to supplement state appropriations. BOAH anticipates requiring funds each year from outside the state line-item appropriation to accomplish traceability objectives.

Cost sharing is accomplished by BOAH paying for all traceability activity outside of funds provided by USDA. BOAH cost shares by contributing staff hours for traceability activities, paying for information technology infrastructure and purchasing necessary supplies and equipment.

Judicious use of permanent staff and enhancements to USAHERDS to facilitate ease of data entry and retrieval provide a buffer against shortfalls. However, reductions in state appropriations will lead to fewer staff to complete traceability implementation.

The long-term goal is to encourage livestock producers and markets to invest their own funds in electronic animal identification and electronic identification and records infrastructure. Education and demonstration will show producers and markets the utility of electronic traceability and increase their willingness to purchase the needed hardware themselves.

BOAH is not aware of any other funding sources.

### 4.7.6 Outreach

BOAH's website provides traceability information materials for farmers, accredited veterinarians, livestock markets and other industry partners. BOAH will present the Indiana traceability program to livestock farmers, veterinarians and livestock markets

at industry meetings and personal visits to key industry participants, in addition to regular communication via industry magazines/newsletters.

**4.7.6.1**      **Accredited veterinarians**

BOAH uses quarterly updates distributed by email, fax and USPS to inform accredited veterinarians of traceability needs.

BOAH provides veterinary continuing education on animal health matters, including traceability, at the Purdue Veterinary Conference and the Indiana Veterinary Medical Association annual meetings for state-licensed veterinarians. These sessions qualify for required training under the USDA accreditation program. BOAH and USDA collaborate to instruct new veterinary graduates about official animal health programs, including traceability programs.

BOAH provides onsite training and consultation to veterinary practices on animal disease traceability. Key messages are emphasized during these visits such as encouraging the use of electronic certificates of veterinary inspection and TB MIMS technology (with the APHIS ID Coordinator for Indiana).

**4.7.6.2**      **Livestock Markets**

BOAH rules require livestock markets to maintain traceability records. Indiana licensed livestock markets are approved tagging sites under the Indiana traceability rules. BOAH is working with individual markets to improve the use of official identification, data collection and reporting of traceability information. BOAH will utilize cooperative agreement funds to purchase electronic identification reading equipment to assist markets in transitioning to 840 electronic identification devices and automated recording of identification information.

**4.7.6.3**      **Industry as a whole**

Indiana has a broad and deep animal agriculture industry. Information on the Indiana industry is available online in NASS reports.

BOAH attends and briefs farmers at industry association meetings and trade shows. Sectors include beef, dairy, pork, sheep and goats, farmed cervids and equine.

BOAH works closely with Purdue Extension Service to promote 840 use and understanding, including through the 4-H program.

The state veterinarian briefs the BOAH Board on traceability during the Board's quarterly meetings. The Board provides input at these meetings.

BOAH's website provides traceability information to the public: https://www.in.gov/boah/.

BOAH works regularly with exhibition managers to integrate premises ID, 840 RFID and RFID reader technology into exhibition management

BOAH works with individual producers to expand the use of 840 RFID into their production management.

Indiana's under-represented and under-served communities are included as their needs and BOAH's needs are identified.

## V.  ADVANCING TRACEABILITY

**5.1  Ranking of priorities for advancement**
Priorities over the next three years. All projects are interrelated and of equal importance. Work in each area will be simultaneous.

**5.2  Implementation of objectives**
Encourage transition to electronic ID and electronic documentation
- Continue to evaluate and approve electronic documentation options for use in Indiana as they become available. Communicate electronic options to veterinary clinics and encourage their use. Train veterinary clinic staffs on electronic options as needed. Provide online tutorials for veterinarians and staff. Communicate electronic options to markets and high-volume users. Provide

electronic ID readers to markets. Train market staff on readers and electronic documentation options.

Integration of electronic data – documentation
- Continue work to establish and improve the electronic interface between BOAH and other systems that create and route electronic certificates of veterinary inspection, test results and other traceability information/documentation. Goal is to minimize the amount of human intervention needed to receive and store electronic traceability information.

Database maintenance and enhancements
- Continue to maintain and improve the Indiana database (USAHERDS) that is used for all traceability functions. Areas of focus will include updating and improving database architecture and security, data extraction, manipulation and analysis and user experience.